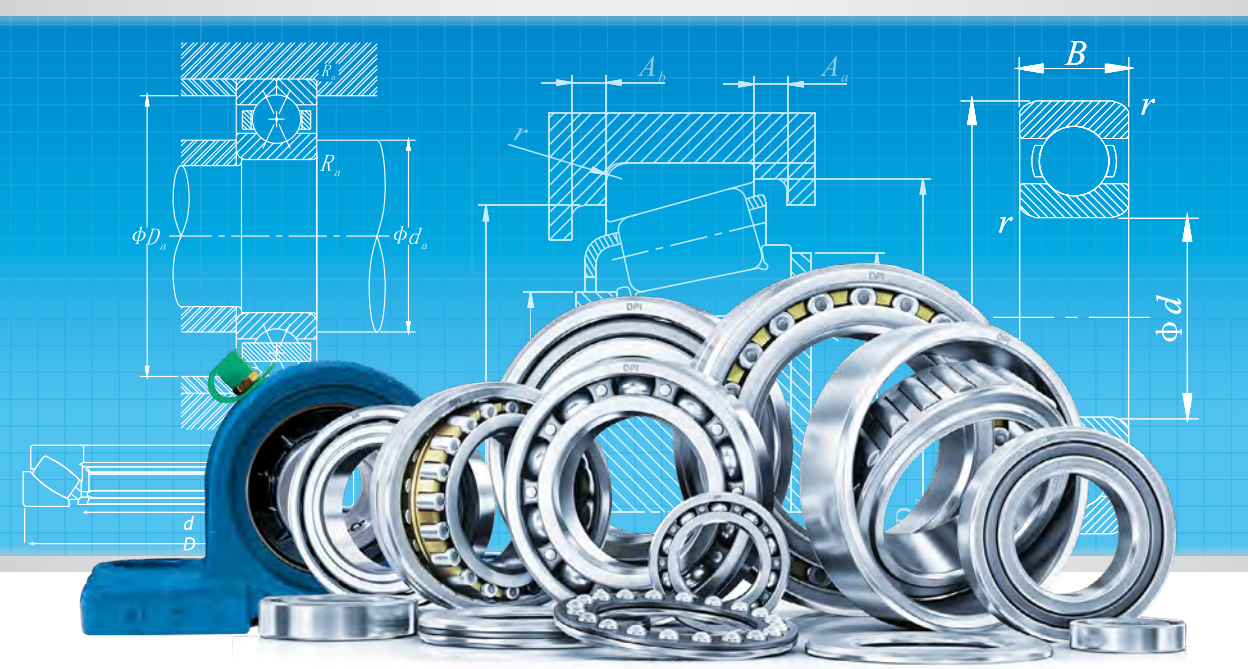
Estd. 1983

DPI®
BEARINGS

GENERAL CATALOGUE



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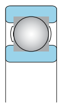
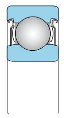
Bearings Specifications Table

Deep Groove Ball Bearings



Open Type Single Row
Deep Groove Ball Bearing
68, 69, 160, 60,, 62, 63, 64



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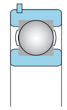
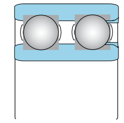
Deep Groove Ball Bearing
Z, RS

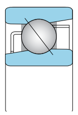


Single Row Locating Snap Ring
Deep Groove Ball Bearing
N, NR

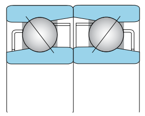


Double Row
Deep Groove Ball Bearing
42, 43

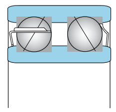
Angular Contact Ball Bearings



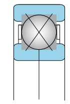
Single Row
Angular Contact Ball Bearing
79, 70, 72, 73, 74, ACH9, ACH0



Matched Pair Single Row
Angular Contact Ball Bearing
DB, DF, DT



Double Row
Angular Contact Ball Bearing
32, 33, 52, 53
52.......2RS, 53........2RS



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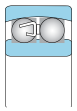
62, 63

Self Aligning Ball Bearings



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Self Aligning Ball Bearing
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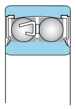
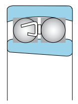
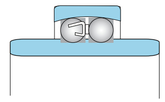


Sealed
Self Aligning Ball Bearing
22....2RS
23....2RS



Tapered Bore / Adaptor Ass.
Self Aligning Ball Bearing
K, H



Extended inner Ring
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112, 113

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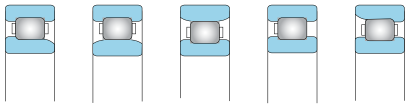
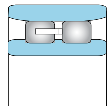
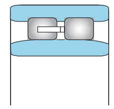


NJ NU N NUP NF

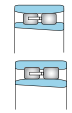
Single Row
Cylindrical Roller Bearings
NU10, NU2, NU22, NU32
NU3, NU23, NU33, NU4



Double Row
Cylindrical Roller Bearings
NN30

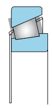


Double Row
Cylindrical Roller Bearings
NNU49

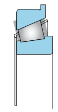


K Type
Tapered Bore
NN....K
NNU....K

Tapered Roller Bearings

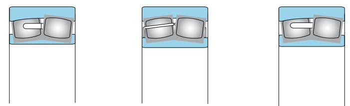


Metric Series
Inch Series
Tapered Roller Bearings
329, 320, 30, 331, 302, 322
332, 303, 303D, 313, 323



Flanged Type
Tapered Roller Bearing

Spherical Roller Bearings



R RH RHA

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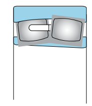
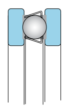
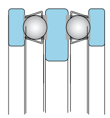


Tapered Bore
Spherical Roller Bearings
.....K

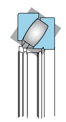
Thrust Ball & Roller Bearings



SIngle Direction
Thrust Ball Bearing
511, 512, 513, 514
---- , 532, 533, 534
----, 532U, 533U, 534U



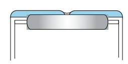
Double Direction
Thrust Ball Bearing
522, 523, 524
542, 543, 544
542U, 543U, 544U



Spherical Roller
Thrust Bearing
292, 293, 294

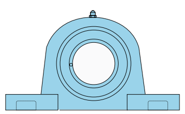
Needle Roller Bearings

Needle Roller & Cage ass'y
Needle Roller Bearings

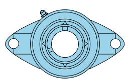


Machined Ring
Needle Roller Bearings

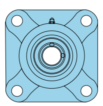
Ball Bearing Units



UCP



UCFL



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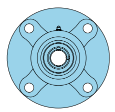

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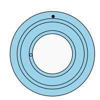
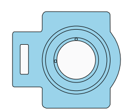


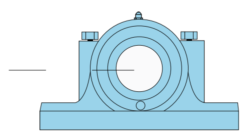
UCC



UCT

Cast Iron
Ball Bearing Units
201 - 209, 310-328

Plummer Blocks



Split type
Plummer block Units
S,SD,SSN

Special Products

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About the Company

DPI Bearings was established in the year 1983 in Pune, India. The company started its production with Ball bearings with technical collaboration with IKS - Japan and thereafter became a specialized producer of High Quality Tapered Roller bearings.

In1984 DPI established a second plant in Pune, near Mumbai (West India) to enhance the ball bearing production. Later on an additional line of TRB bearings was also added into to the same plant.

The Company listed itself on the Bombay Stock Exchange in 1985. The plant established DPI as one of the premier manufacturers of Tapered Roller Bearings In India with Supplies to Top OEM in India. DPI began exporting bearings for the first time with initial exports bound for Middle East and South American markets.

Today 3 decades later, DPI is one of India Largest bearing brands exported worldwide with Sales Partners in more than 70 countries. Our production base consists of over 40 manufacturing sites. All products strictly follow all the latest ISO Standards and cover a comprehensive range of 4800 types of Industrial, Agricultural and Automotive bearings.

DPI has established a reputation in manufacturing high quality ball and roller bearings with an aim to save cost for our customers but not at the cost of quality. Since the first DPI bearing which were manufactured in 1983 in India, DPI today is one of India Fastest growing bearing manufacturer.

Our Product Portfolio consists of over 4800 types of Ball and Roller bearings which are in use in the Industrial, Agricultural and Automotive Applications.

Your advantages when you engage in a relation with us are:

- Reliability
- Fair market prices
- Availability
- Planning
- Quality

We thank you for your interest in DPI and we hope that you find this catalogue useful in understanding our products, philosophy, services and our commitment.We look forward to established a strong relation with you.

Every care has been taken to ensure the correctness of this information contained in this book but no liability can be accepted for any errors or omissions.

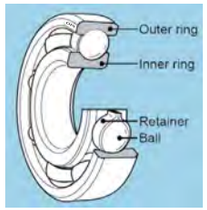
Bearing Structure

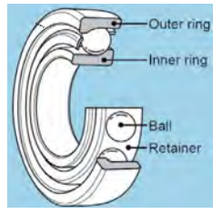
General Construction

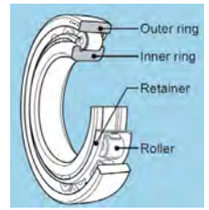
Most bearings consist of rings (inner and outer ring) with raceways, Rolling elements (balls or rollers) and a rolling element retainer (cage). The retainer seperates the rolling elements within specific distance, holds them in place and allows them to rotate freely within the raceways of the bearings. The adjoining figures show the relative positioning of the rings, rolling elements and the retainers for the various types of bearings.

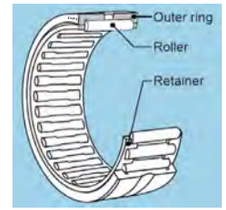
Characteristics of Bearings

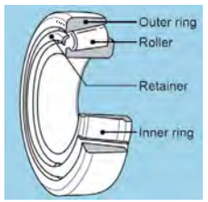
Most bearings have very low friction coeffecients. In general all bearings can carry radial and axial loads in varying capacities based on their type and construction. Ball bearings in general are used in applications that have high speed, high precision, low torque and lower vibration since they have lower frictional coefficients and lower face runout during rotation. Comparatively roller bearings are used in applications that have lower speeds, high loads and are subjected to torque and vibration forces.

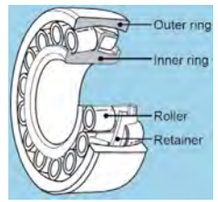


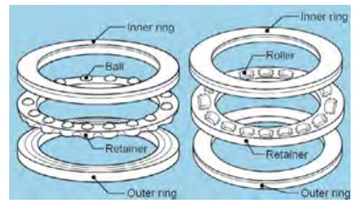








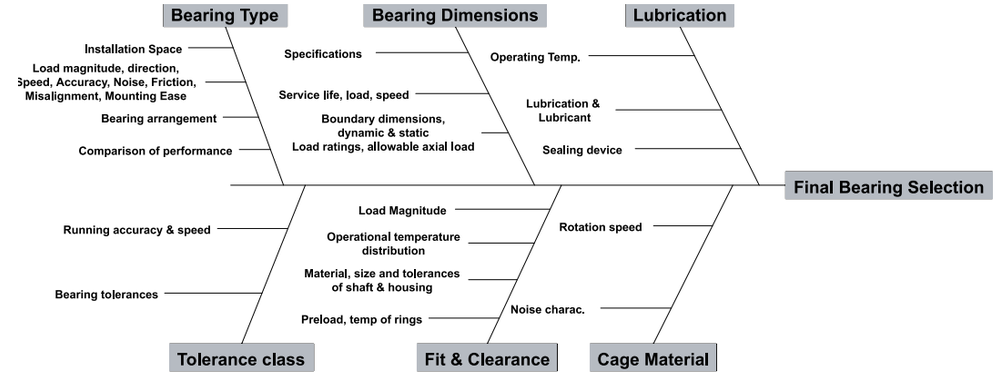




Selection of Bearings

Outline of Bearing Selection

Currently bearing design has become increasingly complex and diverse. A large part of the performance relies on the correct selection of the bearing. To select the most suitable bearing it is necessary to conduct a comprehensive study on bearings and the equipment in which the bearing will be installed, including operating conditions, performance required, specifications of other components to be installed alongwith the bearings and other criteria. Below is a quick guide which can be used for selection of the bearing.



Selection of Bearing Arrangement

Bearings are further installed based on the arrangment of the bearing on the shaft and on the properties and operation of the shaft. Depending on availability of fixed and free side of the shaft different bearings can be used for the shaft.

Performance Comparison

		Deep Groove Ball Bearing	Angular Contact Ball Bearing			4 Point Contact Ball Bearing	Self Aligning Ball Bearing	Cylindrical Roller Bearing				Needle Roller Bearing	Taper Roller		Spherical Roller Bearing	Thrust Ball Bearing		Cylindical Roller Thrust Bearing	Tapered Roller Thrust Bearing	Spherical Thrust Roller Bearing
			Single Row	Matched Pair or Stack	Double Row			NU	NJ	NUP	NN		Single Row	Double Row		With Flat back faces	With Aligning Washer			
								 N	 NF	 NH	 NNU									
Load Resistance	Radial Load	○	○	☆	☆	○	○	☆	☆	☆	☆	☆	☆	☆	☆	✕	✕	✕	✕	△
	Axial Load	○	☆	☆	☆	☆	△	✕	△	△	✕	✕	☆	☆	△	○	○	☆	☆	☆
	Combined Load Radial & Axial	○	○	☆	☆	○	△	✕	△	△	✕	✕	☆	☆	△	✕	✕	✕	✕	△
	Virbration or Impact Load	△	△	△	△	△	△	☆	☆	☆	☆	○	☆	☆	☆	△	△	○	☆	☆
High Speed Adaptability		☆	☆	☆	○	☆	△	☆	☆	☆	☆	○	○	○	○	△	△	△	△	△
High Accuracy		☆	☆	☆		☆		☆			☆		○			○				
Low Noise		☆						○												
Rigidity				○		○		○	○	○	☆	○	○	☆				☆	☆	☆
Misalignment		○	△	✕	✕	✕	☆	△	△	△	△	△	△	△	☆	✕	☆	✕	✕	☆
Ring Seperability		✕	✕	✕	✕	□	✕	□	□	□	□	□	□	□	✕	□	□	□	□	□

Key

Excellent ☆
Good ○
Average △
Acceptable □
Not Acceptable ✕

The above table is simply a basic guide which can be used for ready reference in selection of bearings. It is by no means comprehensive and should only be used as an indicator final bearing selection should be based after careful study and load calculations.

Bearing Rating Life

Load & Life Calculations

Bearings are subjected to two kinds of loads. Static loads and Dynamic loads. Static loads refer to loads applied to the bearing in stationary state (or nearly stationary state i.e. when n<10 min.). $^{-1}$ Dynamic loads are subjected to bearings when there is relative movement between the rings of the bearing. The theoretical rating life (length of time for which the bearing can operate without mechanical failure) calculation is standardized internationally as per the ISO 281 standard. This standard is based on Lundberg and Palmgren›s theory of fatigue.

Basic Rating Life

The basic rating life calculated in accordance to ISO 281 is as below:

$L = (Cr / P)^p$ where

L = (Unit: Million Revolutions)Basic rating life in millions of revolutions reached or exceeded by a sufficiently large number of identical bearings before first indications of material fatigue appear
Cr = (Unit: Newton N) Basic dynamic load rating.
P = Equivalent Bearing load
p= Life exponent. Ball bearings; p = 3

The rating life is also expressed in operating hours and the formula for that is:

$L = \frac{16667}{n} . L$ where

n = (revolutions per min-rpm) operating speed.

Adjusted Rating life

The adjusted rating life in accordance to ISO 281 can be calculated if other influencing factors in addition to the speed and load are known. These factors include:
- special material properties
- Lubrication or
- If reliability over 90% is required.

$Lna = a1 . a2 . a3 . L$ where

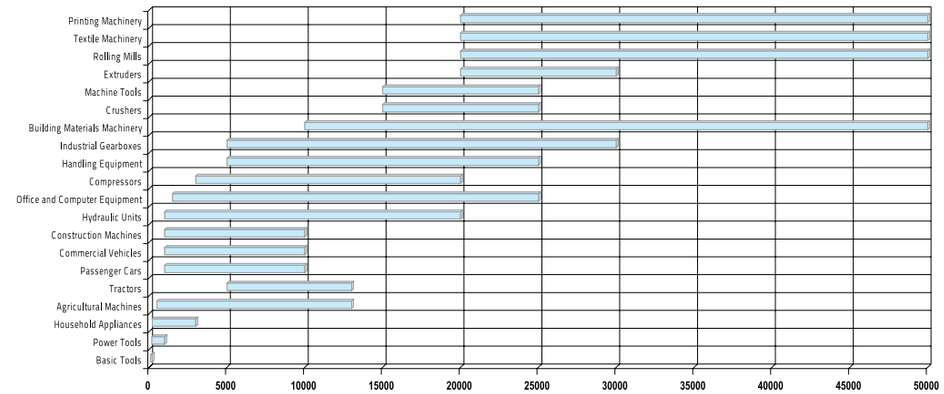
L = Basic rating life
a1 = life adjustment factor for a reliability other than 90% (as shown below)
a2 = life adjustment factor for special material properties (standard Chromium steel: a2 = 1)
a3 = life adjustment factor for special operating conditions - in particular related to lubrication

Reliabilty %	90	95	96	97	98	99
Reliability Coeffecient	1	0.62	0.53	0.44	0.33	0.21

Industry Wise Required Rating Life

If no information is available then values from below general guide can be used to estimate the rating life required for different industries.

Industry Type — Required Rating Life



Operating Hours

Correction of basic dynamic load rating for high temperature use

In high temperature operation bearing material hardness deteriorates, as material compositions are altered. As a result , the dynamic load rating is reduced. To account for this reduction the basic dynamic load rating is multiplied by the temperature coeffecients shown below:

Bearing Temp	125 °	150 °	175 °	200 °	250 °
Temperature Coeffecient	1	0.62	0.53	0.44	0.33

Boundary Dimensions & Bearing Numbers

Bearing Series Code		Bore Diameter Number		Contact Angle		
68	Ball brg	0.6	0.6mm	A	30 °(omit)	
69	Ball brg	1	1	AC	25 °	
60	Ball brg	1.5	1.5	B	40 °	Angular
329	TRB	9	9	C	15 °	Contact
				CA	20 °	Bearings
239	Sph Brg	00	10	E	35 °	
511	Thrust	01	12	B	<17 °(omit)	
		02	15	C	20 °	
		03	17	D	20 °30'	TRB
		04	25	DJ	28 °48'39"	
		96	480			
		500	500			
		2500	2500			

Shield / Seal Code		Ring Shape lubrication hole / Groover Code	
Z-ZZ	Fixed Shield	K	Inner Ring Tapered bore (1:12)
RS - 2RS	Contact	K30	Inner Ring Tapered bore (1:13)
LU - LLU	Contact	N	Snap Ring Groove on outer
		NR	Snap ring groove & Locating snap ring on outer
		NY	Creep preventing synthetic ring
		SG	Spiral groove on bore
		W	Lubrication Hole & Groove(Cyl)
		W33	Lubrication Hole & Groove(Sph)

Match Pair or Stack Code		Internal Clearance & Preload		
DB	Back to Back	C1	Smaller than C2	
DF	Face to Face	C2	Smaller than Standard	
DT	Tandem Arrangement	CN	Standard	Ball Bearings
		C3	Greater than Standard	

Boundary Dimensions & Bearing Numbers

		C4	Greater than C3	
		C5	Greater than C4	
		M1-M6	Radial Clearance	Miniature bearings
		CD2	Smaller than Standard	Double row angular contact
		CDN	Standard	
		CD3	Greater than Standard	
		CM	Radial Clearance for	Ball Bearing
		CT	Electric motor bearings	Cylindrical
		C1NA TO C5NA	Non interchangeable Clearance	Cylindrical
		S	Slight Preload	
		L	Light Preload	Angular Contact
		M	Medium Preload	
		H	Heavy Preload	

Tolerance Code	
omit	class 0
P6	class 6
P6X	class 6X
P5	class 5
P4	class 4
P2	class 2

Notes

Date:.....

Estd. 1983 DPI® BEARINGS

Bearing Tolerances

Tolerances and Tolerance Classes

Bearing tolerances and values for boundary dimensions are standardized and specified. This is done by classifying the bearings into 6 classes: 0, 6X, 6, 5, 4 & 2. Class 0 bearings are used for general applications and class 5 and above are used for high speed & high accuracy applications. The tolerances are based on ISO standards. Tolerance limits have been set for boundary dimension accuracy and for running accuracy.

These are subdivided as follows:

Running Accuracy

1. Radial and Axial runout of inner and outer rings
2. Side face runout in relation to inner ring bore
3. Inclination of outside cylindrical surface
4. Thrust Bearings raceway thickness

Boundary dimensions

1. Inner ring bore diameter
2. Outer ring outside diameter
3. Inner ring Width
4. Outer ring Width
5. Outside diameter of rollers
6. Chamfer dimensions
7. Width variation
8. Tapered Bore

Estd. 1983 DPI BEARINGS

Radial Bearing Tolerence (Tapered Roller Bearings excluded) - Inner Ring (bore Diameter)

Nominal bore diameter (d) mm		Single plane mean bore diameter deviation										Single bore diameter deviation			
		Δ dmp										*D* ds			
		class 0		class 6		class 5		class 4		class 2		class 4		class 2	
over	up to	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower
0.6	2.5	0	-8	0	-7	0	-5	0	-4	0	-2.5	0	-4	0	-2.5
2.5	10	0	-8	0	-7	0	-5	0	-4	0	-2.5	0	-4	0	-2.5
10	18	0	-8	0	-7	0	-5	0	-4	0	-2.5	0	-4	0	-2.5
18	30	0	-10	0	-8	0	-6	0	-5	0	-2.5	0	-5	0	-2.5
30	50	0	-12	0	-10	0	-8	0	-6	0	-2.5	0	-6	0	-2.5
50	80	0	-15	0	-12	0	-9	0	-7	0	-4	0	-7	0	-4
80	120	0	-20	0	-15	0	-10	0	-8	0	-5	0	-8	0	-5
120	150	0	-25	0	-18	0	-13	0	-10	0	-7	0	-10	0	-7
150	180	0	-25	0	-18	0	-13	0	-10	0	-7	0	-10	0	-7
180	250	0	-30	0	-22	0	-15	0	-12	0	-8	0	-12	0	-8
250	315	0	-35	0	-25	0	-18	0	-15	-	-	0	-15	0	-
315	400	0	-40	0	-30	0	-23	0	-18	-	-	0	-18	0	-
400	500	0	-45	0	-35	0	-28	0	-23	-	-	0	-23	-	-
500	630	0	-50	0	-40	0	-35	-	-	-	-	-	-	-	-
630	800	0	-75	0	-50	0	-45	-	-	-	-	-	-	-	-
800	1000	0	-100	0	-60	0	-60	-	-	-	-	-	-	-	-
1000	1250	0	-125	0	-75	0	-75	-	-	-	-	-	-	-	-
1250	1600	0	-160	0	-	-	-	-	-	-	-	-	-	-	-
1600	2000	0	-200	0	-	-	-	-	-	-	-	-	-	-	-

Inner Ring (Bore Diamater) Tolerance: Continued

Single plane mean bore diameter deviation												Mean bore diameter variation				
Diameter series 7,8,9				Diameter series 0.1				Diameter series 2,3,4				V dmp				
class 0	class 6	class 5	class 4	class 0	class6	class 5	class 4	class 0	class 6	class 5	class 4	class 0	class 6	class 5	class 4	class 2
max				max				max				max				
10	9	5	4	8	7	4	3	6	5	4	3	6	5	3	2	1.5
10	9	5	4	8	7	4	3	6	5	4	3	6	5	3	2	1.5
10	9	5	4	8	7	4	3	6	5	4	3	6	5	3	2	1.5
13	10	6	5	10	8	5	4	6	6	5	4	8	6	3	2.5	1.5
15	13	8	6	12	10	6	5	8	8	6	5	9	8	4	3	1.5
19	15	9	7	19	15	7	5	9	9	7	5	11	9	5	3.5	2
25	19	10	8	25	19	8	6	15	11	8	6	15	11	5	4	2.5
31	23	13	10	31	23	10	8	19	14	10	8	19	14	7	5	3.5
31	23	13	10	31	23	10	8	19	14	10	8	19	14	7	5	3.5
38	28	15	12	38	28	12	9	23	17	12	9	23	17	8	6	4
44	31	18	15	44	31	14	11	26	19	14	11	26	19	9	8	-
50	38	23	18	50	38	18	14	30	23	18	14	30	23	12	9	-
56	44	28	23	56	44	21	17	34	26	21	17	34	26	14	12	-
63	50	35	-	63	50	26	-	38	30	26	-	38	30	18	-	-
94	63	45	-	94	63	34	-	56	38	34	-	56	38	23	-	-
125	75	60	-	125	75	45	-	75	45	45	-	75	45	30	-	-
156	94	75	-	156	94	52	-	94	56	56	-	94	56	38	-	-
200	-	-	-	200	-	-	-	120	-	-	-	120	-	-	-	-
250	-	-	-	250	-	-	-	150	-	-	-	150	-	-	-	-

Inner Ring (Running Accuracy & Width) : Unit µm

Nominal bore diameter (d) mm		Radial runout of assembeld bearing inner ring (kia)					Face runout with bore (sd)			Face runout with raceway (Sia)			Single inner ring width deviation (ΔBs)			
		class 0	class 6	class 5	class 4	class 2	class 5	class 4	class 2	class 5	class 4	class 2	class 0		class 6	
over	up to	max					max			max			upper	lower	upper	lower
0.6	2.5	10	5	4	2.5	1.5	7	3	1.5	7	3	1.5	0	40	0	40
2.5	10	10	6	4	2.5	1.5	7	3	1.5	7	3	1.5	0	120	0	120
10	18	10	7	4	2.5	1.5	7	3	1.5	7	3	1.5	0	120	0	120
18	30	13	8	4	3	2.5	8	4	2.5	8	4	2.5	0	120	0	120
30	50	15	10	5	4	2.5	8	4	2.5	8	4	2.5	0	120	0	120
50	80	20	10	5	4	2.5	8	5	2.5	8	5	2.5	0	150	0	150
80	120	25	13	6	5	2.5	9	5	2.5	9	5	2.5	0	200	0	20
120	150	30	18	8	6	2.5	10	6	2.5	10	7	2.5	0	250	0	250
150	180	30	18	8	6	5	10	6	4	10	7	5	0	250	0	250
180	250	40	20	10	8	5	11	7	5	13	8	5	0	300	0	300
250	315	50	25	13	10	-	13	8	-	15	9	-	0	350	0	350
315	400	60	30	15	13	-	15	9	-	20	12	-	0	400	0	400
400	500	65	35	20	15	-	18	11	-	25	15	-	0	450	0	450
500	630	70	40	25	-	-	25	-	-	30	-	-	0	500	0	500
630	800	80	50	30	-	-	30	-	-	35	-	-	0	750	0	750
800	1000	90	60	40	-	-	40	-	-	45	-	-	0	1000	0	1000
1000	1250	100	70	50	-	-	50	-	-	60	-	-	0	1250	0	1250
1250	1600	120	-	-	-	-	-	-	-	-	-	-	0	1600	0	1600
1600	2000	140	-	-	-	-	-	-	-	-	-	-	0	2000	0	2000

Single inner ring width deviation (ΔBs)						Single inner ring width deviation (ΔBs)								Inner ring width deviation (vBS)				
class 5		class 6		class 2		class 0		class 6		class 5		class 4,2		class 0	class 6	class 5	class 4	class 2
upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	max				
0	40	0	40	0	40	-	-	-	-	0	250	0	250	12	12	5	2.5	1.5
0	40	0	40	0	40	0	250	0	250	0	250	0	250	15	15	5	2.5	1.5
0	80	0	80	0	80	0	250	0	250	0	250	0	250	20	20	5	2.5	1.5
0	120	0	120	0	120	0	250	0	250	0	250	0	250	20	20	5	2.5	1.5
0	120	0	120	0	120	0	250	0	250	0	250	0	250	20	20	5	3	1.5
0	150	0	150	0	150	0	380	0	380	0	250	0	250	25	25	6	4	1.5
0	200	0	200	0	200	0	380	0	380	-	380	0	380	25	25	7	4	2.5
0	250	0	250	0	250	0	500	0	500	0	380	0	380	30	30	8	5	2.5
0	250	0	250	0	300	0	500	0	500	0	380	0	380	30	30	8	5	4
0	300	0	300	0	350	0	500	0	500	0	500	0	500	30	30	10	6	5
0	350	0	350	-	-	0	500	0	500	-	500	-	-	35	35	13	8	-
0	400	0	400	-	-	0	63	0	630	0	630	-	-	40	40	15	9	-
0	450	0	450	-	-	0	800	-	800	-	-	-	-	50	45	18	11	-
0	500	-	-	-	-	-	-	-	-	-	-	-	-	60	50	20	-	-
0	750	-	-	-	-	-	-	-	-	-	-	-	-	70	60	23	-	-
0	1000	-	-	-	-	-	-	-	-	-	-	-	-	80	60	35	-	-
0	1250	-	-	-	-	-	-	-	-	-	-	-	-	100	60	45	-	-
0	-	-	-	-	-	-	-	-	-	-	-	-	-	120	-	-	-	-
0	-	-	-	-	-	-	-	-	-	-	-	-	-	140	-	-	-	-

Radial Bearing Tolerence (Tapered Roller Bearings excluded) - Outer Ring (Outer Diameter)

Nominal bore diameter (d) mm		Single plane mean bore diameter deviation										Single bore diamter deviation			
		Δ dmp										*D* ds			
		class 0		class 6		class 5		class 4		class 2		class 4		class 2	
over	up to	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower
2.5	6	0	-8	0	-7	0	-5	0	-4	0	-2.5	0	-4	0	-2.5
6	18	0	-8	0	-7	0	-5	0	-4	0	-2.5	0	-4	0	-2.5
18	30	0	-9	0	-8	0	-6	0	-5	0	-4	0	-6	0	-4
30	50	0	-11	0	-9	0	-7	0	-6	0	-4	0	-6	0	-4
50	80	0	-13	0	-11	0	-9	0	-7	0	-4	0	-7	0	-4
80	120	0	-15	0	-13	0	-10	0	-8	0	-5	0	-8	0	-5
120	150	0	-18	0	-15	0	-11	0	-9	0	-5	0	-9	0	-5
150	180	0	-25	0	-18	0	-13	0	-10	0	-7	0	-10	0	-7
180	250	0	-30	0	-20	0	-15	0	-11	0	-8	0	-11	0	-8
250	315	0	-35	0	-25	0	-18	0	-13	0	-8	0	-13	0	-8
315	400	0	-40	0	-28	0	-20	0	-15	0	-10	0	-15	0	-10
400	500	0	-45	0	-33	0	-23	0	-17	-	-	0	-17	-	-
500	630	0	-50	0	-38	0	-28	0	-20	-	-	0	-20	-	-
630	800	0	-75	0	-45	0	-35	-	-	-	-	-	-	-	-
800	1000	0	-100	0	-60	0	-50	-	-	-	-	-	-	-	-
1000	1250	0	-125	0	-75	0	-63	-	-	-	-	-	-	-	-
1250	1600	0	-160	0	-90	0	-80	-	-	-	-	-	-	-	-
1600	2000	0	-200	0	-120	-	-	-	-	-	-	-	-	-	-
2000	2500	0	-250	-	-	-	-	-	-	-	-	-	-	-	-

Outer Ring (Diameter) Tolerance : continued

Single plane mean bore diameter deviation													Shielded/ Sealed type (Diameter series)		Mean bore diameter variation					
Diameter series 7,8,9				Diameter series 0.1				Diameter series 2,3,4				Total Dia	2,3,4	0,1,2,3,4	V dmp					
class 0	class 6	class 5	class 4	class 0	class 6	class 5	class4	class 0	class 6	class 5	class 4	class 2	class 0	class 6	class 0	class 6	class 5	class 4	class 2
max				max				max				max	max		max				
10	9	5	4	8	7	4	3	6	5	4	3	2.5	10	9	6	5	3	2	1.5
10	9	5	4	8	7	4	3	6	5	4	3	2.5	10	9	6	5	3	2	1.5
12	10	6	5	9	8	5	4	7	6	5	4	4	12	10	7	6	3	2.5	3
14	11	7	6	11	9	5	5	8	7	5	5	4	16	13	8	7	4	3	2
16	14	9	7	13	11	7	5	10	8	7	5	4	20	16	10	8	5	3.5	2
19	16	10	8	19	16	8	6	11	10	8	6	5	26	20	11	10	5	4	2.5
23	19	11	9	23	19	8	7	14	11	8	7	5	38	25	14	11	6	5	2.5
31	23	13	10	31	23	10	8	19	14	10	8	7	-	30	19	14	7	5	3.5
38	25	15	11	38	25	11	8	23	15	11	8	8	-	-	23	15	8	6	4
44	31	18	13	44	31	14	10	26	19	14	10	8	-	-	26	19	9	7	4
50	35	20	15	50	35	15	11	30	21	15	11	10	-	-	30	21	10	8	5
56	41	23	17	56	41	21	15	34	25	17	13	-	-	-	34	25	12	9	-
63	48	28	20	63	48	26	-	38	29	21	15	-	-	-	38	29	14	-	-
94	56	35	-	94	56	38	-	55	34	26	-	-	-	-	55	34	18	-	-
125	75	50	-	125	75	47	-	75	45	38	-	-	-	-	75	45	25	-	-
156	94	63	-	156	94	60	-	94	56	47	-	-	-	-	94	56	31	-	-
200	113	80	-	200	113	-	-	120	68	60	-	-	-	-	120	68	40	-	-
250	150	-	-	250	150	-	-	150	90	-	-	-	-	-	150	90	-	-	-
313	-	-	-	313	-	-	-	188	-	-	-	-	-	-	188	-	-	-	-

Outer Ring (Running Accuracy & Width) : Unit µm

Nominal bore diameter (d) mm		Radial runout of assembeld bearing inner ring (kia)					Sd			Sea			ΔCs		Ring width variation VCs			
		class 0	class 6	class 5	class 4	class 2	class 5	class 4	class 2	class 5	class 4	class 2	class 0,6,5,4,2		class 0,6	class 5	class 4	class 2
over	up to	max					max						upper	lower	max			
2.5	6	15	8	5	3	1.5	8	4	1.5	8	5	1.5				5	2.5	1.5
6	18	15	8	5	3	1.5	8	4	1.5	8	5	1.5				5	2.5	1.5
18	30	15	9	6	4	2.5	8	4	1.5	8	5	2.5				5	2.5	1.5
30	50	20	10	7	5	2.5	8	4	1.5	8	5	2.5				5	2.5	1.5
50	80	25	13	8	5	4	8	4	1.5	10	5	4				6	3	1.5
80	120	35	18	10	6	5	9	5	2.5	11	6	5				8	4	2.5
120	150	40	20	11	7	5	10	5	2.5	13	7	5				8	5	2.5
150	180	45	23	13	8	5	10	5	2.5	14	8	5				8	5	4
180	250	50	25	15	10	7	11	7	4	15	10	7				10	7	5
250	315	60	30	18	11	7	13	8	5	18	10	7				11	7	7
315	400	70	35	20	13	8	13	10	7	20	13	8				13	8	-
400	500	80	40	23	15	-	15	12	-	23	15	-				15	9	-
500	630	100	50	25	18	-	18	13	-	25	18	-				18	11	-
630	800	120	60	30	-	-	20	-	-	30	-	-				20	-	-
800	1000	140	75	40	-	-	23	-	-	40	-	-				23	-	-
1000	1250	160	85	45	-	-	30	-	-	45	-	-				30	-	-
1250	1600	190	95	60	-	-	45	-	-	60	-	-				45	-	-
1600	2000	220	110	-	-	-	-	-	-	-	-	-				-	-	-
2000	2500	250	-	-	-	-	-	-	-	-	-	-				-	-	-

Shall conform to the tolerance ΔCs on d of the same bearing

Shall conform to the tolerance VB's on D of the same bearing

Estd. 1983 DPI® BEARINGS

Tolerances for Ball Bearings Inch Series- Inner & Outer Ring Width: Unit µm

Nominal bore diameter (d) mm		Single plane mean bore diameter deviation ∆dmp				Single bore diameter deviation ∆ds				Single radial plane bore diamter variation Vdp		Mean bore diameter variation Vdmp	
		class 5P, 7P		class 9P		class 5P, 7P		class 9P		class 5P, 7P	class 9P	class 5P, 7P	class 9P
over	up to	upper	lower	upper	lower	upper	lower	upper	lower	max		max	
-	10	0	5.1	0	2.5	0	5.1	0	2.5	2.5	1.3	2.5	1.3
10	18	0	5.1	0	2.5	0	5.1	0	2.5	2.5	1.3	2.5	1.3
18	30	0	5.1	0	2.5	0	5.1	0	2.5	2.5	1.3	2.5	1.3

Tolerances for Ball Bearings Inch Series (Continued): Unit µm

Radial runout of assembled bearing inner ring Kia			Assemled bearing inner ring faceout with raceway			Face runout with bore Sd			Single inner or outer ring width deviation ∆Bs, ∆Cs		Inner or outer ring width variation Vbs, Vcs		
class 5P	class 7P	class 9P	class 5P	class 7P	class 9P	class 5P	class 7P	class 9P	class 5P,7P,9P		class 5P	class 7P	class 9P
max			max			max			upper	lower	max		
3.8	2.5	1.3	7.6	2.5	1.3	7.6	2.5	1.3	0	-25.4	5.1	2.5	1.3
3.8	2.5	1.3	7.6	2.5	1.3	7.6	2.5	1.3	0	-25.4	5.1	2.5	1.3
3.8	3.8	2.5	7.6	3.8	1.3	7.6	3.8	1.3	0	-25.4	5.1	2.5	1.3

Tolerance for Ball Bearings inch Series - Outer Ring : Unit µm

Nominal outiside diameter (d) mm		Single plane mean bore diameter deviation ∆dmp				Single bore diameter deviation ∆ds						Single radial plane bore diameter variation Vdp			Mean bore diameter variation Vdmp		
		class 5P, 7P		class 9P		class 5P, 7P				class 9P		class 5P, 7P		class 9P	class 5P, 7P		class 9P
						Open type		Shielded/ sealed type		Open type		Open type	Shielded/ sealed type	Open type	Open type	Shielded/ sealed type	Open type
over	up to	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	max			max		
-	18	0	5.1	0	2.5	0	5.1	1	-6.1	0	2.5	2.5	5.1	1.3	2.5	5.1	1.3
18	90	0	5.1	0	3.8	0	5.1	1	-6.1	0	3.8	2.5	5.1	2	2.5	5.1	2
30	50	0	5.1	0	3.8	0	5.1	1	-6.1	0	3.8	2.5	5.1	2	2.5	5.1	2

Tolerance for Ball Bearings inch Series (Continued) - Outer Ring : Unit µm

Radial runout of assembled bearing inner ring Kia			Assemled bearing inner ring faceout with raceway Sea			Variation of outside surface generatrix inclination with face SD			Single flange outside diameter deviation ˆ D1s		Single flange width deviation ˆC1s	
class 5P	class 7P	class 9P	class 5P	class 7P	class 9P	class 5P	class 7P	class 9P	class 5P, 7P		class 5P, 7P	
max			max			max			upper	lower	upper	lower
5.1	3.8	1.3	7.6	2.5	1.3	7.6	2.5	1.3	0	-25.4	0	-50.8
5.1	3.8	2.5	7.6	2.5	1.3	7.6	2.5	1.3	0	-25.4	0	-50.8
5.1	5.1	2.5	7.6	3.8	1.3	7.6	3.8	1.3	0	-25.4	0	-50.8

Tolerances for Metric Series Tapered Roller Bearings- Cone: Unit µm

Nominal bore diameter (d) mm		Single plane mean bore diameter deviation								Single bore diameter deviation		Single radial plane bore diamter variation Vdp			
		D dmp								*D* ds		V dp			
		class 0		class 6		class 5		class 4		class 4		class 0	class 6	class 5	class 4
over	up to	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	max			
10	18	0	-12	0	-7	0	-7	0	-5	0	-5	12	7	5	4
18	30	0	-12	0	-8	0	-8	0	-6	0	-6	12	8	6	5
30	50	0	-12	0	-10	0	-10	0	-8	0	-8	12	10	8	6
50	80	0	-15	0	-12	0	-12	0	-9	0	-9	15	12	9	7
80	120	0	-20	0	-15	0	-15	0	-10	0	-10	20	15	11	8
120	180	0	-25	0	-18	0	-18	0	-13	0	-13	25	18	14	10
180	250	0	-30	0	-22	0	-22	0	-15	0	-15	30	22	17	11

Tolerances for Metric Series Tapered Roller Bearings (continued) Cone: Unit µm

Mean Bore diameter variation				Radial run out of assembled bearing cone				Face run out with bore		Sia	Single cone width deviation					
V dmp								D ds			D Bs					
class 0	class 6	class 5	class 4	class 0	class 6	class 5	class 4	class 5	class 4		class 4		class 6		class 5,4	
max				max				max		max	upper	lower	upper	lower	upper	lower
9	5	5	4	15	7	5	3	7	3	3	0	-120	0	-120	0	-200
9	6	5	4	18	8	5	3	8	4	4	0	-120	0	-120	0	-200
9	8	5	5	20	10	6	4	8	4	4	0	-120	0	-120	0	-240
11	9	6	5	25	10	7	4	8	5	4	0	-150	0	-150	0	-300
15	11	8	5	30	13	8	5	9	5	5	0	-200	0	-200	0	-400
19	14	9	7	35	18	11	6	10	6	7	0	-250	0	-250	0	-500
23	16	11	8	50	20	13	8	11	7	8	0	-300	0	-300	0	-600

Tolerances for Metric Series Tapered Roller Bearings- Cup: Unit µm

Nominal bore diameter (d) mm		Single plane mean bore diameter deviation								Single bore diameter deviation		Single radial plane bore diameter variation Vdp			
		D dmp								*D* ds		V dp			
		class 0		class 6		class 5		class 4		class 4		class 0	class 6	class 5	class 4
over	up to	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	max			
10	18	0	-12	0	-7	0	-7	0	-5	0	-6	12	8	6	5
18	30	0	-12	0	-8	0	-8	0	-6	0	-7	14	9	7	5
30	50	0	-12	0	-10	0	-10	0	-8	0	-9	16	11	8	7
50	80	0	-15	0	-12	0	-12	0	-9	0	-10	18	13	10	8
80	120	0	-20	0	-15	0	-15	0	-10	0	-11	20	15	11	8
120	180	0	-25	0	-18	0	-18	0	-13	0	-13	25	18	14	10
180	250	0	-30	0	-22	0	-22	0	-15	0	-15	30	20	15	11

Tolerances for Metric Series Tapered Roller Bearings- Cup: Unit µm -(continued)

Mean outside diameter variation				Radial run out of assembled bearing cone				SD		S ea	Single cup width deviation			
V dmp								D ds			D Cs			
class 0	class 6	class 5	class 4	class 0	class 6	class 5	class 4	class 5	class 4	class 4	class 4		class 0,5,4	
max				max				max		max	upper	lower	upper	lower
9	6	5	4	18	9	6	4	8	4	5	0	-100	Confirms to the tolerance D Bs on d of the same bearing	
11	7	5	5	20	10	7	5	8	4	5	0	-100		
12	8	6	5	25	13	8	5	8	4	5	0	-100		
14	10	7	5	35	18	10	6	9	5	6	0	-100		
15	11	8	6	40	20	11	7	10	5	7	0	-100		
19	14	9	7	45	23	13	8	10	5	8	0	-100		
23	10	10	8	50	25	15	10	11	7	10	0	-100		

Tolerances for Metric Series Tapered Roller Bearings- Bearing width & effective Width: Unit µm

Nominal bore diameter (d) mm		Actual Deviation width Δ Ts								Actual effective cone sub-unit width deviation ΔT2s				Actual effective cup sub-unit			
		class	0	class	6X	class	6	class	5,4	class	0	class	6X	class	0	class	6X
over	up to	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower
10	18	200	0	100	0	200	0	200	-200	100	0	50	0	100	0	50	0
18	30	200	0	100	0	200	0	200	-200	100	0	50	0	100	0	50	0
30	50	200	0	100	0	200	0	200	-200	100	0	50	0	0	0	50	0
50	80	200	0	100	0	200	0	200	-200	100	0	50	0	100	0	50	0
80	120	200	-200	100	0	200	-200	200	-200	100	-100	50	0	100	-100	50	0
120	180	350	-250	150	0	350	-250	350	-250	150	-150	50	0	200	-100	100	0
180	250	350	-250	150	0	350	-250	350	-250	150	-150	50	0	200	-100	100	0
250	315	400	-250	200	0	400	-250	400	-250	200	-150	100	0	200	-100	100	0
315	400	400	-400	200	0	400	-400	400	-400	200	-200	100	0	200	-200	100	0
400	500	400	-400	-	-	400	-400	400	-400	-	-	-	-	-	-	-	-
500	630	500	-500	-	-	500	-500	500	-500	-	-	-	-	-	-	-	-
630	800	600	-600	-	-	600	-600	600	-600	-	-	-	-	-	-	-	-
800	1000	750	-750	-	-	750	-750	750	-750	-	-	-	-	-	-	-	-

Tolerances for Metric Series Double Row and Four Row Tapered roller Bearings: Unit µm (1) Cone, Cup and overall Width

Nominal bore diameter (d)		Single plane mean bore		Single radial	Mean bore diameter	Radial runout	Single cup or cone width deviation		Actual overall cones/ cups width deviation			
mm		Δ dmp		Vdp	Vdmp	K1a	ΔBs, ΔCs		Double row ΔTs		Four row ΔTs, ΔWs	
over	up to	upper	lower	max	max	max	upper	lower	upper	lower	upper	lower
30	50	0	12	12	7	20	-	-	240	-240	-	-
50	80	0	15	15	11	25	-	-	300	-300	-	-
80	120	0	20	20	15	30	0	-200	400	-400	500	500
120	180	0	25	25	17	35	0	-250	500	-500	600	600
180	250	0	30	30	23	50	0	-300	600	-600	750	750
250	315	0	35	35	26	60	0	-350	700	-700	900	900
315	400	0	40	40	30	70	0	-400	800	-800	1000	1000
400	500	0	45	45	34	80	0	-450	900	-900	1200	1200
500	630	0	50	50	38	90	0	-500	1000	-1000	1200	1200
630	800	0	75	75	56	105	0	-750	1500	-1500	-	-
800	1000	0	100	100	75	120	-	-	1500	-1500	-	-

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Tolerances for Metric Series Double Row and Four Row Tapered roller Bearings: Unit µm (2) Cup

Nominal bore diameter (d) mm		Single plane mean bore diameter deviation ∆dmp		Single radial planeVDp	Mean Outside Diameter variation VDMp	Radial Runout Kea
over	up to	upper	lower	max	max	max
50	80	0	16	16	12	25
60	120	0	18	18	14	35
120	150	0	20	20	15	40
150	180	0	25	25	17	45
180	250	0	30	30	23	50
250	315	0	35	35	26	60
315	400	0	40	40	30	70
400	500	0	45	45	34	80
500	630	0	50	50	38	100
630	800	0	75	75	56	120
800	1000	0	100	100	75	140
1000	1250	0	125	125	81	165
1250	1600	0	160	160	120	190

Tolerances for Thrust Ball Bearings (1) Shaft Washer and Central washer

Nominal bore diameter of shaft or central washer		Single plane mean bore diameter deviation d or d2 mm ∆dmp or ∆d2mp				Single radial plane mean bore diameter deviation		Thickness variation S1			
		classes 0,6,5				classes 0,6,5		class 0	class 6	class 5	class 4
over	up to	upper	lower	upper	lower	class 4	class 4			max	max
-	18	0	8	0	-7	6	5	10	5	3	2
18	30	0	1	0	-8	8	6	10	5	3	2
30	50	0	12	0	-10	9	8	10	6	3	2
50	80	0	15	0	-12	11	9	10	7	4	3
80	120	0	20	0	-15	15	11	15	8	4	3
120	180	0	25	0	-18	19	14	15	9	5	4
180	250	0	30	0	-22	23	17	20	10	5	4
250	315	0	35	0	-25	26	19	25	13	7	5
315	400	0	40		-30	30	23	30	15	7	5
400	500	0	45	0	-35	34	26	30	18	9	6
500	630	0	50	0	-40	38	30	35	21	11	7
630	800	0	75	0	-50	-	-	40	25	13	8
800	1000	0	100	-	-	-	-	45	30	15	-
1000	1250	0	125	-	-	-	-	50	25	18	-

(2) Housing Washer

Nominal outside diameter (D) mm		Single plane mean outside diameter deviation ∆dmp				Single radial plane mean outside diameter deviation VDp		Washer raceway to back thickness variation Se			
		classes 0,6,5		class 4		class 0,6,5	class 4	class 0	class 6	class 5	class 4
over	up to	upper	lower	upper	lower	max		max			
10	18	0	-11	0	-7	8	5	Shall confirm to tolerance Si on d or d2 of the same bearing			
18	30	0	-13	0	-8	10	6				
30	50	0	-16	0	-9	12	7				
50	80	0	-19	0	-11	14	8				
80	120	0	-22	0	-13	17	10				
120	180	0	-25	0	-15	19	11				
180	250	0	-30	0	-20	23	15				
250	315	0	-35	0	-25	26	19				
315	400	0	-40	0	-28	30	21				
400	500	0	-45	0	-33	34	25				
500	630	0	-50	0	-38	38	29				
630	800	0	-75	0	-45	55	34				
800	1000	0	-100	-	-	75	-				
1000	1250	0	-125	-	-	-	-				
1250	1600	0	-160	-	-	-	-				

Bearings Height and Central Washer Height

Nominal outside diameter (D) mm		Single Direction		Double Direction					
		Deviation of the actual bearing height T ∆Ts		Deviation of the actual bearing height T1 ∆T1S		Deviation of the actual bearing height T2 ∆T2s		Deviation of a single central washer height B ∆Bs	
		class 0		class 0		class 0		class 0	
over	up to	upper	lower	upper	lower	upper	lower	upper	lower
-	30	0	-75	50	-150	0	-75	0	-50
30	50	0	-100	75	-200	0	-100	0	-75
50	80	0	-125	100	-250	0	-125	0	-100
80	120	0	-150	125	-300	0	-150	0	-125
120	180	0	-175	150	-350	0	-175	0	-150
180	250	0	-200	175	-400	0	-200	0	-175
250	315	0	-225	200	-450	0	-225	0	-200
315	400	0	-300	250	-600	0	-300	0	-250

Permissible values for chamber dimensions washer

Metric series TRB

r min OR R1 min	Nominal bore diameter d m		Radial Direction	Axial Direction
	over	up to	r max or	r1max
0.3	-	40	0.7	1.4
	40	-	0.9	1.6
0.6	-	40	1.1	1.7
	40	-	1.3	2
1	-	50	1.6	2.5
	50	-	1.9	3
1.5	-	120	2.3	3
	120	250	2.8	3.5
	250	-	3.5	4
2	-	120	2.8	4
	120	250	3.5	4.5
	250	-	4	5
2.5	-	120	3.5	5
	120	250	4	5.5
	250	-	4.5	6
3	-	120	4	5.5
	120	250	4.5	6.5
	250	400	5	7
	400	-	5.5	7.5
4	-	120	5	7
	120	250	5.5	7.5
	250	400	6	8
	400	-	6.5	8.5
5	-	180	6.5	8
	180	-	7.5	9
6	-	180	7.5	10
	180	-	9	11
7.5	-	-	12.5	17
9.5	-	-	15	19

Metric series TRB

r min OR R1 min	Nominal bore diameter d m
	r max or r1 max
0.05	0.1
0.08	0.16
0.1	0.2
0.15	0.3
0.2	0.5
0.3	0.8
0.6	1.5
1	2.2
1.1	2.7
1.5	3.5
2	4
2.1	4.5
3	5.5
4	6.5
4	8
6	10
7.5	12.5
9.5	15
12	18
15	21
19	25

(1) Radial Bearing (TRB excluded)

r min OR R1 min	Nominal bore diameter d m		Radial Direction	Axial Direction
	over	up to	r max or	r1max
0.5	-	-	0.1	0.2
0.08	-	-	0.16	0.3
0.1	-	-	0.2	0.4
0.15	-	-	0.3	0.6
0.2	-	-	0.5	0.8
0.3	-	40	0.6	1
	40	-	0.8	1
0.6	-	40	1	2
	40	-	1.3	2
1	-	50	1.5	3
	50	-	1.9	3
1.1	-	120	2	3.5
	120	-	2.5	4
1.5	-	120	2.3	4
	120	-	3	5
2	-	80	3	4.5
	80	220	3.5	5
	220	-	3.8	6
2.1	-	280	4	6.5
	280	-	4.5	7
2.5	-	100	3.8	6
	100	280	4.5	6
	280	-	5	7
3	-	280	5	8
	280	-	5.5	8
4	-	-	6.5	9
5	-	-	8	10
6	-	-	10	13
7.5	-	-	12.5	17
9.5	-	-	15	19
12	-	-	18	24
15	-	-	21	30
19			25	38

Bearing Clearances

The bearing clearance is the measurement by which one bearing ring can be displaced in relation to the other one either in the radial direction (radial clearance) or in the axial direction (axial clearance) from one end position to the other. In the case of some bearing types radial and axial clearances depend on each other.

There is a distinction made between the clearance of the bearing prior to mounting and the clearance of the mounted bearing at operating temperature(operating clearance). The operating clearance should be as small as possible for the shaft to be guided perfectly. The clearance of the non-mounted bearing is reduced during mounting due to tight fits of the bearing rings.

As a rule, it therefore has to be larger than the operating clearance. The radial clearance is also reduced during operation when the inner ring becomes warmer than the outer ring, which is usually the case.

DIN 620 specifies standard values for the radial clearance of bearings. The normal clearance of rolling bearings. The normal clearance (clearance group CN) is calculated in such a way that the bearing has unappropriate operating clearance under common mounting and operating conditions.

Normal fits are:
Shaft Housing
Ball Bearing – j5…k5 H7…J7
Roller Bearing - k5...m5 H7…M7

Mounting and service conditions which deviate, such as tight fits for both bearing rings or temperature difference > 10K, make more radial clearance group necessary. The suitable clearance group is calculated.

Suffixes for the clearance groups according to DIN 620:
C2 Radial clearance smaller than normal (CN)
C3 Radial clearance larger than normal(CN)
C4 Radial clearance larger than C3

Reduction of the radial clearances by means of temperature differences:
The reduction of the radial clearances ^ grt by means of temperature differences ^t (K) for non adjusted bearings is approximately:

^grt = ^ t . alpha.(d+D)/2(mm)

Where

Alpha = 0.000011K-1 Linear thermal expansion coefficient of the steel
d-Bearing bore(mm)
D- Bearing outside diameter (mm)

A greater change in radial clearance can be expected when the bearing position is exposed to the input or dissipation of heat. A smaller radial clearance results from heat input through the shaft or heat dissipation through the housing. A larger radial clearance results from heat input through the housing or heat dissipation through the shaft. Rapid run-up of the bearings to operating speed results in greater differences in temperature between the bearing rings than is the case in a steady state. Either the bearings should be run up slowly or a larger radial clearance than theoretically necessary for the bearing when under operating temperatures should be selected in order to prevent detrimental preload and bearing deformation.

Reduction and radial clearance by means of tight fits:
The expansion of the inner ring raceway and the constriction of the outer ring raceway can be assumed to be approximately 80% and 70% of the interference respectively. (Preconditions: solid steel shaft, steel housing with normal wall thickness).

Radial Internal Clearance for Deep Groove Ball Bearing (Cylindrical Bore)

Nominal bore diameter (d) mm		Clearance									
		C2		CN		C3		C4		C5	
over	up to	min	max	min	max	min	max	min	max	min	max
2.5	6	0	7	2	13	8	23	14	29	20	37
6	10	0	7	2	13	8	23	14	29	20	37
10	18	0	9	3	18	11	25	18	33	25	45
18	24	0	10	5	20	13	28	20	36	28	48
24	30	1	11	5	20	13	28	23	41	30	53
30	40	1	11	6	20	15	33	28	46	40	54
40	50	1	11	6	23	18	36	30	51	45	73
50	65	1	15	8	28	23	43	38	61	55	90
65	80	1	15	10	30	25	51	46	71	65	105
80	100	1	18	12	36	30	58	53	84	75	120
100	120	2	20	15	41	36	66	61	97	90	140
120	140	2	23	18	48	41	81	71	114	105	160
140	160	2	23	18	53	46	91	81	130	120	180
160	180	2	25	20	61	53	102	91	147	135	200
180	200	2	30	25	71	63	117	107	163	105	230

Correction Table

Nominal bore diameter (d) mm		Measurement load	Amount of clearance correction in microns					
		N	C2		CN	C3	C4	C5
over	up to		max	min	max	min	max	min
2.5	18	24.5	3	4	4	4	4	4
18	50	49	4	5	5	6	6	6
50	280	147	6	8	8	9	9	9

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Radial Internal Clearance for Self Aligning Ball Bearings (Cylindrical Bore)

Nominal bore diameter (d) mm		Clearance									
		C2		CN		C3		C4		C5	
over	up to	min	max	min	max	min	max	min	max	min	max
2.5	6	1	8	5	15	10	20	15	25	21	33
6	10	2	9	6	17	12	25	19	33	27	42
10	14	2	10	6	19	13	26	21	35	30	48
14	18	3	12	8	21	15	28	23	37	32	50
18	24	4	14	10	23	17	30	25	39	34	52
24	30	5	16	11	24	19	35	29	46	40	58
30	40	6	18	13	29	23	40	34	53	46	66
40	50	6	19	14	31	25	44	37	57	50	71
50	65	7	21	16	36	30	50	45	69	62	88
65	80	8	24	18	40	35	60	54	83	76	108
80	100	9	27	22	48	42	70	64	96	89	124
100	120	10	31	25	56	50	83	75	114	105	145
120	140	10	38	30	68	60	100	90	135	125	175
140	160	15	44	35	80	70	120	110	161	150	210

Radial Internal Clearance for Self Aligning Ball Bearings (Tapered Bore)

Nominal bore diameter (d) mm		Clearance									
		C2		CN		C3		C4		C5	
over	up to	min	max	min	max	min	max	min	max	min	max
18	24	7	17	13	26	20	33	28	42	37	55
24	30	9	20	15	28	23	39	33	50	44	62
30	40	12	24	19	35	29	46	40	59	52	72
40	50	14	27	22	39	33	52	45	65	58	79
50	65	18	32	27	47	41	61	56	80	73	99
65	80	23	39	35	57	50	75	69	98	91	123
80	100	29	47	42	68	62	90	84	116	109	144
100	120	35	56	50	81	75	108	100	139	130	170
120	140	40	68	60	98	90	130	120	165	155	205
140	160	45	74	65	110	100	150	140	191	180	240

Radial Internal Clearance for Cylindrical Roller Bearing (Cylindrical Bore)

Nominal bore diameter (D) mm		Clearance									
		C2		CN		C3		C4		C5	
over	up to	min	max	min	max	min	max	min	max	min	max
	10	0	25	20	45	35	60	50	75		
10	24	0	25	20	45	35	60	50	75	65	90
24	30	0	25	20	45	35	60	50	75	70	95
30	40	5	30	25	50	45	70	60	85	80	105
40	50	5	35	30	60	50	80	70	100	95	125
50	65	10	40	40	70	60	90	80	110	110	140
65	80	10	45	40	75	65	100	90	125	130	165
80	100	15	50	50	85	75	110	105	140	155	190
100	120	15	55	50	90	85	125	125	165	180	220
120	140	15	60	60	105	100	145	145	190	200	245
140	160	20	70	70	120	115	165	165	215	225	275
160	180	25	75	75	125	120	170	170	220	250	300
180	200	35	90	90	145	140	195	195	250	275	330

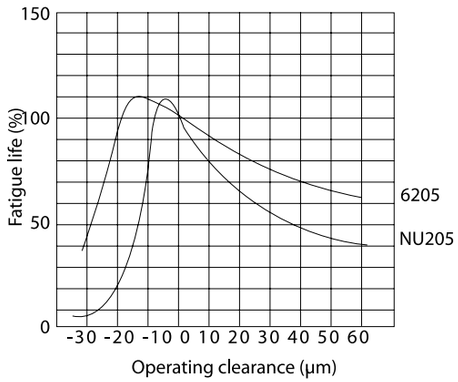
Radial Internal Clearance for Spherical Roller Bearings (Cylindrical Bore)

Nominal bore diameter (d) mm		Clearance									
		C2		CN		C3		C4		C5	
over	up to	min	max	min	max	min	max	min	max	min	max
14	18	10	20	20	35	35	45	45	60	60	75
18	24	10	20	20	35	35	45	45	60	60	75
24	30	15	25	25	40	40	55	55	75	75	95
30	40	15	30	30	45	45	60	60	80	80	100
40	50	20	35	35	55	55	75	75	100	100	125
50	65	20	40	40	65	65	90	90	120	120	150
65	80	30	50	50	80	80	110	110	145	145	180
80	100	35	60	60	100	100	135	135	180	180	225
100	120	40	75	75	120	120	160	160	210	210	260
120	140	50	95	95	145	145	190	190	240	240	300
140	160	60	110	110	170	170	220	220	280	280	350
160	180	65	120	120	180	180	240	240	310	310	390
180	200	70	130	130	200	200	260	260	340	340	430
200	225	80	140	140	220	220	290	290	380	380	470
225	250	90	150	150	240	240	320	320	420	420	520
250	280	100	170	170	260	260	350	350	460	460	570
280	315	110	190	190	280	280	370	370	500	500	630
315	355	120	200	200	310	310	410	410	550	550	690
355	400	130	220	220	340	340	450	450	600	600	750
400	450	140	240	240	370	370	500	500	660	660	820
450	500	140	260	260	410	410	550	550	720	720	900
500	560	150	280	280	440	440	600	600	780	780	1000

Estd. 1983 DPI BEARINGS

Radial Internal Clearance for Spherical Roller Bearings (Cylindrical Bore)

Nominal bore diameter (d) mm		Clearance									
		C2		CN		C3		C4		C5	
over	up to	min	max	min	max	min	max	min	max	min	max
18	24	15	25	25	35	35	45	45	60	60	75
24	30	20	30	30	40	40	55	55	75	75	95
30	40	25	35	35	50	50	65	65	85	85	105
40	50	30	45	45	60	60	80	80	100	100	130
50	65	40	55	55	75	75	95	95	120	120	160
65	80	50	70	70	95	95	120	120	150	150	200
80	100	55	80	80	110	110	140	140	180	180	230
100	120	65	100	100	135	135	170	170	220	220	280
120	140	80	120	120	160	160	200	200	260	260	330
140	160	90	130	130	180	180	230	230	300	300	380
160	180	100	140	140	200	200	260	260	340	340	430
180	200	110	160	160	220	220	290	290	370	370	470
200	225	120	180	180	250	250	320	320	410	410	520
225	250	140	200	200	270	270	350	350	450	450	570
250	280	150	220	220	300	300	390	390	490	490	620
280	315	170	240	240	330	330	430	430	540	540	680
315	355	190	270	270	360	360	470	470	590	590	740
355	400	210	300	300	400	400	520	520	650	650	820
400	450	230	330	330	440	440	570	570	720	720	910
450	500	260	370	370	490	490	630	630	790	790	1000
500	560	290	410	410	540	540	680	680	870	870	1100



General Construction of Bearings

Preload Definition

For some applications bearings are mounted with certain amount of axial load so that the clearance of the bearing is negative. This kind of load is known as "preload" and is very often applied to tapered roller and angular contact ball bearings.

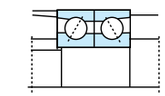
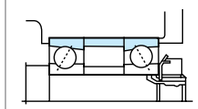
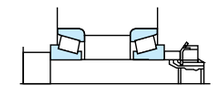
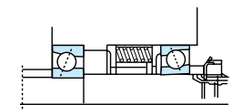
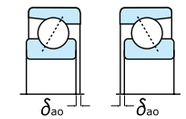
Preload Purpose

The purpose of the preload is as follows:
a) To Improve the running accuracy
b) To Improve gear engagement accuracy by increasing rigidity
c) To reduce smearing by reducing sliding in irregular rotation
d) To minimize abnormal noise due to vibration
e) To keep rolling elements in right position relative to raceway.

Preload Methods

Application of preload is achieved in one of the following ways:
1) Position Preloading
2) Constant Pressure Preloading

Method of Preloading

	Position preloading		Constant pressure preloading
			
* Method using matched pair bearing with stand-out adjusted for preicading (see below). 	* Method using spacer with dimensions adjusted for preloading.	* Method using nut or bolt capable of adjusting preload in axial direction. Tn this case, starting friction moment during adjustment should be measured so that proper preload will be applied.	* Method using coil spring or diaphram spring.

Lubrication Purpose

Lubrication is one of the most important factors determining bearing performance.
The suitability of the lubricant and lubrication method have a strong influence on bearing life.

Lubrication has the following function:
a) To lubricate each part of the bearing and reduce friction and wear
b) To carry away heat generated inside bearing due to friction.
c) To cover rolling contact surface with the proper oil film.
d) To Prevent corrosion and contamination

Type of Lubrication

Bearing lubrication is classified broadly into :
a) Grease Lubrication
b) Oil Lubrication

The main differences between them are as follows:

Item	Grease	Oil
Sealing	Easy	Slightly complicated and special care required
Lubricating ability	Good	Excellent
Rotation speed	Low/medium	Applicable at high speed
Replacement of lubricant	Slightly troublesome	Easy
Life of lubricant	Relatively short	Long
Cooling effect	No cooling effect	Good (with circulation)
Filtration of dirt	Difficult	Easy

DPI DGMT 3 Grease

For best results use DPI DGMT 3 Grease. This is specially formulated in the EU with wide use all over the world with our customers and bearings.

Material

Bearing materials include steel for bearing rings and rolling elements, as well as steel sheet,steel, copper alloy and synthetic resins for cages. These bearing materials should possess the following characteristics :

1) High elasticity, durable under high partial contact stress. > Bearing ring, Rolling elements
2) High strength against rolling contact fatigue due to large repetitive contact load.
3) Strong hardness > Bearing ring, Rolling elements, Cages
4) High abrasion resistance
5) High toughness against impact load
6) Excellent dimensional stability

1) High Carbon Chromium Bearing Steel

High carbon chromium bearing steel specified in Indian/Chinese Standard is used as a general material in bearing (inner rings, outer rings) and rolling elements (balls, rollers). Among these steel types, SUJ 2 is generally used. SUJ 3, which contains additional Mn and Si, possesses high hardenability and is commonly used for thick section bearings. SUJ 5 has increased hardenability, because it was developed by adding Mo to SUJ 3 for small and medium sized bearings, SUJ 2 and SUJ 3 are used, and for large size and extra-large size bearings with thick sections, SUJ 5 is widely used. Generally, these materials are processed into the specified shape and then undergo hardening and annealing treatment until they attain a hardness of 57 to 64 HRC.

2) Case Carburizing Bearing Steel (Case Hardened Steel)

When a bearing recieves heavy impact loads, the surface of the bearing should be hard and the inside soft. Such materials should posses a proper amount of carbon, dense structure, and carburizing case depth on their surface, while having proper hardness and fine structure internally. For this purpose, chromium steel and nickelchromium - molybdenum steel are used as materials.

These materials also undergo vaccum degassing in order to reduce nonmetallic inclusions and oxygen content which leads to higher reliability.

Materials

3) Others

For special applications, the following materials are used, according to operational conditions.

(When very high reability is required)
*high refining steel...developed by us
*vaccum arc remelted steel
*electro slag remelted steel

(When heat resistance is required)
*high speed steel for high temperature bearings

(When high corrosion resistance is required)
*stainless steel.

(When high heat, corrosion, and chemical resistance are required)
*ceramics

Chemical composition of high carbon chromium bearing steel

Standard	Code	Chemical composition (%)						
		C	Si	Mn	P	S	Cr	Mo
JIS G 4805	SUJ 2	0.95-1.10	0.15-0.35	Not more than 0.50	Not more than 0.25	Not more than 0.25	1.30 - 1.60	Not more than 0.08
	SUJ 3	0.95 - 1.10	0.40 - 0.70	0.90 - 1.15			0.90 - 1.20	Not more than 0.08
	SUJ 5	0.95 -1.10	0.40 - 0.70	0.90 - 1.15			0.90 - 1.20	0.10 - 0.25
SAE J 404	S2100	0.98 - 1.10	0.15 - 0.35	0.25 - 0.45	Not more than 0.025	Not more than 0.025	1.30 - 1.60	Not more than 0.06

Remark) As for bearings which are induction hardened, carbon steel with a high carbon content of 0.55 to 0.65% is used in addition to those listed in this table.

Chemical composition of case carburizing bearing steel

Standard	Code	Chemical composition (%)							
		C	Si	Mn	P	S	Ni	Cr	Mo
JIS G 4104	SCr 415	0.13 - 1.18	0.15 - 0.35	0.60 - 0.85	Not more than 0.030	Not more than 0.030	-	0.90 - 1.20	-
	SCr 420	0.18 - 0.23	0.15 - 0.35	0.60 - 0.85			-	0.90 - 1.20	-
JIS G 4105	SCM 420	0.18 - 0.23	0.15 - 0.35	0.60 - 0.85	Not more than 0.030	Not more than 0.030	-	0.90 - 1.20	0.15 - 0.30
	SNCM 220	0.17 - 0.23	0.15 - 0.35	0.60 - 0.90	Not more than 0.030	Not more than 0.030	0.40 - 0.70	0.40 - 0.65	0.15 - 0.30
	SNCM 420	0.17 - 0.23	0.15 - 0.35	0.40 - 0.70			1.60 - 2.00	0.40 - 0.65	0.15 - 0.30
	SCNM 815	0.12 - 0.18	0.15 - 0.35	0.30 - 0.60	Not more than 0.030	Not more than 0.030	1.60 - 2.00	0.70 - 1.00	0.15 - 0.30
SAE J 404	5120	0.17 - 0.22	0.15 - 0.35	0.70 - 0.90	Not more than 0.030	Not more than 0.040	-	0.70 - 1.00	-
	8620	0.18 - 0.23	0.15 - 0.35	0.70 - 0.90	Not more than 0.030	Not more than 0.040	0.40 - 0.70	0.40 - 0.60	0.15 - 0.25
	4320	0.17 - 0.22	0.15 - 0.30	0.45 - 0.65	Not more than 0.025	Not more than 0.025	1.65 - 2.00	0.40 - 0.60	0.20 - 0.30

Chemical composition of high speed steel for high temperature bearings

Standard	Code	Chemical composition (%)											
		C	Si	Mn	P	S	Cr	Mo	V	Ni	Cu	Co	W
AISI	M 50	0-77 - 0.85	Not more than 0.25	Not more than 0.35	Not more than 0.015	Not more than 0.015	3.75 - 4.25	4.00 - 4.50	0.90 - 1.10	Not more than 0.10	Not more than 0.10	Not more than 0.25	Not more than 0.25

Chemical composition of stainless steel

Standard	Code	Chemical composition (%)						
		C	Si	Mn	P	S	Cr	Mo
JIS G 4303	SUS 440 C	0.95 - 1.20	Not more than 1.00	Not more than 1.00	Not more than 0.040	Not more than 0.030	16.00 - 18.00	Not more than 0.75

Dimensions Table

Estd. 1983

DPI®

BEARINGS

Deep Groove Ball Bearing

Deep groove ball bearing are the most popular and support radial and certain degree of axial load in both direction simultaneosly. The following types of ball bearings are available:

1.Shielded / Sealed type

This simplifies the sealing. Greasing is not necessary because bearings are pre-lubricated.

The various types of seals are as follows:
a) ZZ (non-contact) Shield: This is good in applications that require small frictional torques and high speed with good resistance of dirt. These have very limited resistance of water.

b) 2RS/LLU (contact type) seal: This is good in applications that require large frictional torques. They have limitations in high speed applications due to the contact of seal. The grease sealing and direct and water resistance is very good.

2.With locating snap ring

These can be fit into housings easily as the locating snap ring facilitates acial positioning.

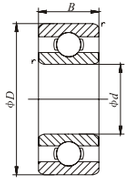
3.Extra-small ball bearings & Miniature ball bearings

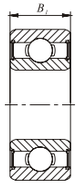
The open type is widely used.

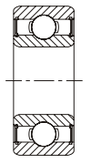
The standard cages used are pressed steel cages. Additionally copper alloy machined cages are also available.

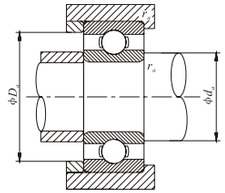
DPI ball bearings are the most popular products. These are well known for there quality and performance. Our standard quality has made the ball bearing series very popular in most of the markets.
For details on boundary dimensions and specifications please refer to the tables overleaf.

Micro - Miniature deep groove ball bearing









d 2 ~ 9mm

Open Type

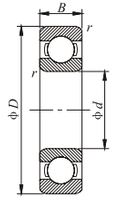
Shielded ZZ

Contact seal type RS

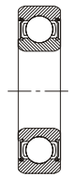
Main Dimension (mm)					Basic Load Rating (N)		Limit Speed (r/min)		Bearing No.		Mounting dimensions (mm)				Weight (g)
d	*D*	*B*	B_1	*(r)*	C_r	C_{0r}	*Grease Lubrication*	*Oil Lubrication*			d_a Min	d_a Max	D_a Max	R_a Max	**Open**
2	4	1.2	2	0.5	104	37	83000	98000	**672**		2.5	2.6	3.5	0.05	0.06
	5	1.5	2.3	0.08	171	51	74000	87000	**682**		2.8	2.9	4.2	0.08	0.13
	6	2.3	3	0.15	279	89	67000	79000	**692**		3.2	3.3	4.8	0.15	0.31
	7	2.8	3.5	0.15	380	125	62000	73000	**602**		3.2	3.7	5.8	0.15	0.54
3	6	2	2.5	0.08	242	94	60000	71000	**673**		3.6	4.1	5.4	0.08	0.2
	7	2	3	0.1	390	130	58000	68000	**683**		3.9	4.1	5.8	0.1	0.33
	8	3	4	0.15	560	180	54000	63000	**693**		4.2	4.4	6.8	0.15	0.61
	9	3	5	0.15	635	219	50000	59000	**603**		4.2	5	7.8	0.15	0.92
	10	4	4	0.15	640	224	50000	58000	**623**		4.2	5.2	8.8	0.15	1.6
4	9	2.5	4	0.15	640	224	49000	57000	**684**		5	5.2	7.8	0.1	0.76
	11	4	4	0.15	715	276	45000	52000	**694**		5.2	6.4	9.8	0.15	2.0
	12	4	4	0.2	970	360	43000	51000	**604**		5.6	6.6	10.4	0.2	2.3
	13	5	5	0.2	1310	490	42000	49000	**624**		5.6	6.2	11.4	0.2	3.5
	16	5	5	0.3	1760	680	37000	44000	**634**		6	7.6	14	0.3	5.1
5	8	2	2.5	0.08	217	91	49000	57000	**675**		5.6	6	7.4	0.08	0.32
	11	3	5	0.15	715	282	43000	51000	**685**		6.2	6.8	9.8	0.15	1.1
	13	4	4	0.2	1080	430	40000	47000	**695**		6.6	6.9	11.4	0.2	2.4
	14	5	5	0.2	1330	505	39000	46000	**605**		6.6	7.4	12.4	0.2	3.6
	16	5	5	0.3	1760	680	37000	44000	**625**		7	7.6	14	0.3	4.8
	19	6	6	0.3	2340	885	34000	40000	**635**		7	9.5	17	0.3	8.0
6	13	3.5	5	0.15	1080	440	39000	46000	**686**		7	7.2	11.6	0.15	1.9
	15	5	5	0.2	1350	530	37000	44000	**696**		7.6	7.8	13.4	0.2	3.8
	17	6	6	0.3	2190	865	35000	42000	**606**		8	8.6	15	0.3	6.0
	19	6	6	0.3	2340	885	34000	40000	**626**		8	9.5	17	0.3	8.1
7	11	2.5	3	0.1	555	269	40000	47000	**677**		7.8	8.1	10.2	0.1	0.67
	14	3.5	5	0.15	1170	505	37000	44000	**687**		8.2	8.7	12.8	0.15	2.1
	17	5	5	0.3	1610	715	35000	41000	**697**		9	10	15	0.3	5.2
	19	6	6	0.3	2240	910	34000	40000	**607**		9	10.4	17	0.3	8.0
	22	7	7	0.3	3350	1400	32000	37000	**627**		9	12.2	20	0.3	13.0
8	16	4	5	0.2	1610	715	35000	41000	**688**		9.6	10	14.4	0.2	3.1
	19	6	6	0.3	1990	865	33000	39000	**698**		10	10.6	17	0.3	7.3
	22	7	7	0.3	3350	1400	32000	37000	**608**		10	12.2	20	0.3	12.0
	24	8	8	0.3	4000	1590	31000	36000	**628**		10	12.1	22	1.3	17.0
9	14	3	4.5	0.1	920	465	36000	42000	**679**		9.8	10.4	13.2	0.1	1.4
	17	4	5	0.2	1720	820	33000	39000	**689**		10.6	10.7	15.4	0.2	3.2
	20	6	6	0.3	2480	1090	32000	38000	**699**		11	11.6	18	0.3	8.2
	24	7	7	0.3	3400	1480	31000	36000	**609**		11	13.1	22	0.3	14.0
	26	8	8	0.6	4550	1960	30000	35000	**629**		13	13.9	22	0.3	20.0

02 | Deep Groove Ball Bearing

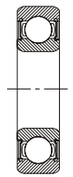
Single Row Deep Groove Ball Bearing



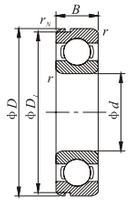
Open Type



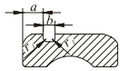
Shielded Type (ZZ)

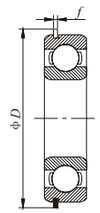


Contact seal type (RS)

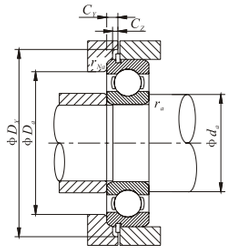


With snap groove





With snap ring

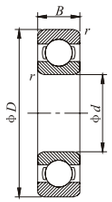


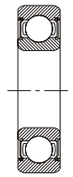
d 10 ~ 25mm

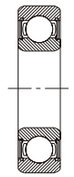
Main Dimension (mm)				Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.		Snap Groove dimensions (mm)					Stop Ring Dimensions (mm)		Mounting dimensions (mm)						Weight (kg)
d	*D*	*B*	*r (min)*	C_r	C_{0r}	*Grease Lubrication*	*Oil Lubrication*			*a Max*	*b Min*	D_1 *Max*	r_0 *Max*	r_n *Min*	D_2 *Max*	*f Max*	d_a *Min*		D_a *Max*	r_a *Max*	D_x *Max*	C_y *Min*	C_z *Max*	*Max*
10	19	5	0.3	1.83	0.93	32000	38000	**6800**		-	-	-	-	-	-	-	12	12.5	17	0.3	-	-	-	0.005
	22	6	0.3	2.70	1.27	30000	36000	**6900**		1.05	0.8	20.8	0.2	0.3	24.8	0.7	12	13	20	0.3	25.5	1.5	0.7	0.009
	26	8	0.3	4.55	1.97	29000	34000	**6000**		-	-	-	-	-	-	-	12	13.5	24	0.3	-	-	-	0.018
	30	9	0.6	5.10	2.39	25000	30000	**6200**		2.06	1.35	28.17	0.4	0.5	34.7	1.12	14	16	26	0.6	35.5	2.9	1.2	0.032
	35	11	0.6	8.20	.50	23000	27000	**6300**		2.06	1.35	33.17	0.4	0.5	39.7	1.12	14	17	31	0.6	40.5	2.9	1.2	0.053
12	21	5	0.3	1.92	1.04	29000	35000	**6801**		-	-	-	-	-	-	-	14	14.5	19	0.3	-	-	-	0.006
	24	6	0.3	2.89	1.46	27000	32000	**6901**		1.05	0.8	22.8	0.2	0.3	26.8	0.7	14	15	22	0.3	27.5	1.5	0.7	0.011
	28	7	0.3	5.10	2.39	26000	30000	**16001**		-	-	-	-	-	-	-	14	-	26	0.3	-	-	-	0.019
	28	8	0.3	5.10	2.39	26000	30000	**6001**		-	-	-	-	-	-	-	14	16	26	0.3	-	-	-	0.022
	32	10	0.6	6.10	2.75	22000	26000	**6201**		2.06	1.35	30.15	0.4	0.5	36.7	1.12	16	17	28	0.6	37.5	2.9	1.2	0.037
	37	12	1	9.70	4.20	20000	24000	**6301**		2.06	1.35	34.77	0.4	0.5	41.3	1.12	17	18.5	32	1	42	2.9	1.2	0.060
15	24	5	0.3	2.08	1.26	26000	31000	**6802**		-	-	-	-	-	-	-	17	17.5	22	0.3	-	-	-	0.007
	28	7	0.3	3.65	2.00	24000	28000	**6902**		1.3	0.95	26.7	0.25	0.3	30.8	0.85	17	17.5	26	0.3	31.5	1.9	0.9	0.016
	32	8	0.3	5.60	2.83	24000	26000	**16002**		-	-	-	-	-	-	-	17	-	30	0.3	-	-	-	0.025
	32	9	0.3	5.60	2.83	22000	26000	**6002**		2.06	1.35	30.15	0.4	0.3	36.7	1.12	17	19	30	0.3	37.5	2.9	1.2	0.030
	35	11	0.6	7.75	3.60	19000	23000	**6202**		2.06	1.35	33.17	0.4	0.5	39.7	1.12	19	20	31	0.6	40.5	2.9	1.2	0.045
	42	13	1	11.40	5.45	17000	21000	**6302**		2.06	1.35	39.75	0.4	0.5	46.3	1.12	20	23	37	1	47	2.9	1.2	0.082
17	26	5	0.3	2.23	1.46	24000	28000	**6803**		-	-	-	-	-	-	-	19	19.5	24	0.3	-	-	-	0.008
	30	7	0.3	4.65	2.58	22000	26000	**6903**		1.3	0.95	28.7	0.25	0.3	32.8	0.85	19	20	28	0.3	33.5	1.9	0.9	0.018
	35	8	0.3	6.80	3.35	20000	24000	**16003**		-	-	-	-	-	-	-	19	-	33	0.3	-	-	0.9	0.032
	35	10	0.3	6.80	3.35	20000	24000	**6003**		2.06	1.35	33.17	0.4	0.3	39.7	1.12	19	21	33	0.3	40.5	2.9	1.2	0.039
	40	12	0.6	9.60	4.60	18000	21000	**62030**		2.06	1.35	38.1	0.4	0.5	44.6	1.12	21	23	36	0.6	45.5	2.9	1.2	0.066
	47	14	1	13.50	6.55	16000	19000	**6303**		2.46	1.35	44.6	0.4	0.5	52.7	1.12	22	25	42	1	53.5	3.3	1.2	0.115
	62	17	1.1	22.70	10.80	14000	16000	**6403**		-	-	-	-	-	-	-	23.5	-	55.5	1	-	-	-	0.270
20	32	7	0.3	4.00	2.47	21000	25000	**6804**		1.3	0.95	30.7	0.25	0.3	34.8	0.85	22	22.5	30	0.3	35.5	1.9	0.9	0.019
	37	9	0.3	6.40	3.70	19000	23000	**6904**		1.7	0.95	35.7	0.25	0.3	39.8	0.85	22	24	35	0.3	40.5	2.3	0.9	0.036
	42	8	0.3	7.90	4.50	18000	21000	**16004**		-	-	-	-	-	-	-	22	-	40	0.3	-	-	-	0.051
	42	12	0.6	9.40	5.05	18000	21000	**6004**		2.06	1.35	39.75	0.4	0.5	46.3	1.12	24	26	38	0.6	47	2.9	1.2	0.069
	47	12	0.6	9.40	5.05	16000	18000	**6204**		2.46	1.35	44.6	0.4	0.5	52.7	1.12	24	26	42	1	53.5	3.3	1.2	0.106
	52	15	1.1	15.90	7.90	14000	17000	**6304**		2.46	1.35	49.73	0.4	0.5	57.9	1.12	26.5	28.5	45.5	1	58.5	3.3	1.2	0.144
	72	19	1.1	28.50	13.90	12000	14000	**6404**		-	-	-	-	-	-	-	26.5	-	65.5	1	-	-	-	0.400
22	44	12	0.6	9.40	5.05	17000	20000	**60/20**		2.06	1.35	41.75	0.4	0.5	48.3	1.12	26	26.5	40	0.6	49	2.9	1.2	0.074
	50	14	1	12.90	6.80	14000	17000	**62/22**		2.46	1.35	47.6	0.4	0.5	55.7	1.12	27	29.5	45	1	56.5	3.3	1.2	0.117
	56	16	1.1	18.40	9.25	13000	15000	**63/22**		2.46	1.35	53.6	0.4	0.5	61.7	1.12	28.5	31	49.5	1	62.5	3.3	1.2	0.176
25	37	7	0.3	4.30	2.95	18000	21000	**6805**		1.3	0.95	65.7	0.25	0.3	39.8	0.85	27	28	35	0.3	40.5	1.9	0.9	0.022
	42	9	0.3	7.05	4.55	16000	19000	**6905**		1.7	0.95	40.7	0.25	0.3	44.8	0.85	27	29	40	0.3	45.5	2.3	0.9	0.042
	47	8	0.3	5.10	15000	15000	18000	**16005**		-	-	-	-	-	-	-	27	-	45	0.3	-	-	-	0.060
	47	12	0.6	10.10	5.85	15000	18000	**6005**		2.06	1.35	44.6	0.4	0.5	52.7	1.12	29	30	43	0.6	53.5	2.9	1.2	0.080

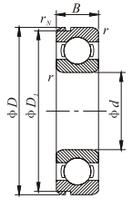
Estd. 1983 DPI BEARINGS

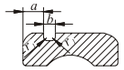
Single Row Deep Groove Ball Bearing

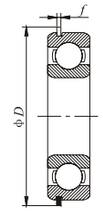


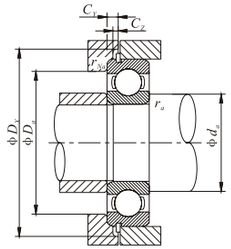












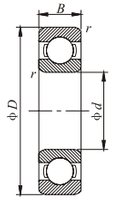
***d* 25 ~ 45mm**

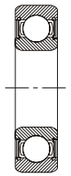
Open Type | Shielded Type (ZZ) | Contact seal type (RS) | With snap groove | With snap ring

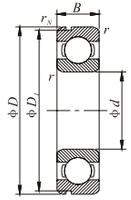
Main Dimension (mm)				Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.		Snap Groove dimensions (mm)					Stop Ring Dimensions (mm)		Mounting dimensions (mm)						Weight (kg)
d	*D*	*B*	*r (min)*	C_1	C_{0r}	*Grease Lubrication*	*Oil Lubrication*			*a Max*	*b Min*	D_1 *Max*	r_0 *Max*	r_n *Min*	D_2 *Max*	*f Max*	d_a *Min*	D_a *Max*	r_a *Max*	D_x *Max*	C_y *Min*	C_z *Max*	*Max*
25	52	15	1	14.10	7.85	13900	15000	**6205**		2.46	1.35	49.73	0.4	0.5	57.9	1.12	30	32	47	1	58.5	3.3	1.2	0.128
	62	17	1.1	21.20	10.90	12000	14000	**6305**		3.28	1.9	59.61	0.6	0.5	67.7	1.7	31.5	35	55.5	1	68.5	4.6	1.7	0.232
	80	21	1.35	34.50	17.50	10000	12000	**6405**		-	-	-	-	-	-	-	33	-	72	1.5	-	-	-	0.530
28	52	12	0.6	12.50	7.40	14000	16000	**60/28**		2.06	1.35	49.73	0.4	0.5	57.9	1.12	32	34	48	0.6	58.5	2.9	1.2	0.098
	58	16	1	17.90	9.75	12000	14000	**62/28**		2.46	1.35	55.6	0.4	0.5	63.7	1.12	33	35.5	53	1	64.5	3.3	1.2	0.171
	68	18	1.1	26.70	14.00	11000	13000	**63/28**		3.28	1.9	64.82	0.6	0.5	74.6	1.7	34.5	38.5	61.5	1	76	4.6	1.7	0.284
30	42	7	0.3	4.70	3.65	15000	18000	**6806**		1.3	0.95	40.7	0.25	0.3	44.8	0.85	32	33	40	0.3	45.5	1.9	0.9	0.026
	47	9	0.3	7.25	5.00	14000	17000	**6906**		1.7	0.95	45.7	0.25	0.3	49.8	0.85	32	34	45	0.3	50.5	2.3	0.9	0.048
	55	9	0.3	11.20	7.35	13000	15000	**16006**		-	-	-	-	-	-	-	32	-	53	0.3	-	-	-	0.091
	55	13	1	13.20	8.30	13000	15000	**6006**		2.08	1.35	52.6	0.4	0.5	60.7	1.12	35	37	50	1	61.5	2.9	1.2	0.116
	62	16	1	19.50	11.30	11000	13000	**6206**		3.28	1.9	59.61	0.6	0.5	67.7	1.7	35	39	57	1	68.5	4.6	1.7	0.199
30	72	19	1.1	26.70	15.00	10000	12000	**6306**		3.28	1.9	68.81	0.6	0.5	78.6	1.7	36.5	43	65.5	1	80	4.6	1.7	0.360
	90	23	1.5	43.50	23.90	8800	10000	**6406**		-	-	-	--	-	-	-	38	-	82	1.5	-	-	-	0.735
32	58	13	1	11.80	8.05	12000	15000	**60/32**		2.08	1.35	55.6	0.4	0.5	63.7	1.12	37	39	53	1	64.5	2.9	1.2	0.129
	65	17	1	20.70	11.60	11000	12000	**62/32**		3.28	1.9	62.6	0.6	0.5	70.7	1.7	37	40	60	1	71.5	4.6	1.7	0.226
	75	20	1.1	29.80	16.90	9500	11000	**63/32**		3.28	1.9	71.83	0.6	0.5	81.6	1.7	38.5	43.5	68.5	1	83	4.6	1.7	0.382
35	47	7	0.3	4.90	4.05	13000	16000	**6807**		1.3	0.95	45.7	0.25	0.3	49.8	0.85	37	38	45	0.3	50.5	1.9	0.9	0.029
	55	10	0.6	9.55	6.85	12000	15000	**6907**		1.7	0.95	53.7	0.25	0.5	57.8	0.85	39	40	51	0.6	58.5	2.3	0.9	0.074
	62	9	0.3	11.70	8.20	12000	14000	**16007**		-	-		-	-	-	-	37	-	60	0.3	-	-	-	0.110
	62	14	1	16.00	10.30	12000	14000	**6007**		2.08	1.9	59.61	0.6	0.5	67.7	1.7	40	42	57	1	68.5	3.4	1.7	0.155
	72	17	1.1	25.70	15.30	9800	11000	**6207**		3.28	1.9	68.81	0.6	0.5	78.6	1.7	41.5	45	65.5	1	80	4.6	1.7	0.288
	80	21	1.5	33.50	19.10	8800	10000	**6307**		3.28	1.9	76.81	0.6	0.5	86.6	1.7	43	47	72	1.5	88	4.6	1.7	0.457
	100	25	1.5	55.00	31.00	7800	9100	**6407**		-	-	-	-	-	-	-	43	-	92	1.5	-	-	-	0.952
40	52	7	0.3	5.10	4.40	12000	14000	**6808**		1.3	0.95	50.7	0.25	0.3	54.8	0.85	42	43	50	0.3	55.5	1.9	0.9	0.033
	62	12	0.6	12.20	8.90	11000	13000	**6908**		1.7	0.95	60.7	0.25	0.5	64.8	0.85	44	45	58	0.6	65.5	2.3	0.9	0.110
	68	9	0.3	12.60	9.65	10000	12000	**16008**		1.7	-	-	-	-	-		42	-	66	0.3	-	-	-	0.125
	68	15	1	16.80	11.50	10000	12000	**6008**		2.49	1.9	64.82	0.6	0.5	74.6	1.7	45	47	63	1	76	3.8	1.7	0.190
	80	18	1.1	29.10	17.80	8700	10000	**6208**		3.28	1.9	76.81	0.6	0.5	86.6	1.7	46.5	51	73.5	1	88	4.6	1.7	0.366
	90	23	1.5	40.50	24.00	7800	9200	**6308**		3.28	2.7	86.79	0.6	0.5	96.5	2.46	48	54	82	1.5	98	5.4	2.5	0.630
	110	27	2	63.50	36.50	7000	8200	**6408**		-	-	-	-	-	-	-	49	-	101	2	-	-	-	1.230
45	58	7	0.3	5.35	4.95	11000	12000	**6809**		1.3	0.95	56.7	0.25	0.3	60.8	0.85	47	48	56	0.3	61.5	1.9	0.9	0.038
	68	12	0.6	13.10	10.40	9800	12000	**6909**		1.7	0.95	66.7	0.25	0.5	70.8	0.85	49	51	64	0.6	72	2.3	0.9	0.128
	75	10	0.6	12.90	10.50	9200	11000	**16009**		-	-	-	-	-	-	-	49	-	71	0.6	-	-	-	0.171
	75	16	1	21.00	15.10	9200	11000	**6009**		2.49	1.9	71.83	0.6	0.5	81.6	1.7	50	52.5	70	1	83	3.8	1.7	0.237
	85	19	1.1	32.50	20.40	7800	9200	**6209**		3.28	1.9	81.81	0.6	0.5	91.6	1.7	51.5	55.5	78.5	1	93	4.6	1.7	0.398
	100	25	1.5	53.00	32.00	7000	8200	**6309**		3.28	2.7	96.8	0.6	0.5	106.5	2.46	53	61.5	92	1.5	108	5.4	2.5	0.814
	120	29	2	77.00	45.00	6300	7400	**6409**		-	-	-	-	-	-	-	54	-	111	2	-	-	-	1.530

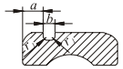
Estd. 1983 DPI BEARINGS

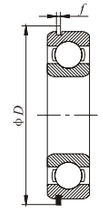
Single Row Deep Groove Ball Bearing

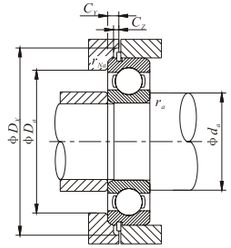












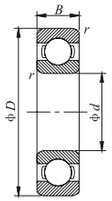
d 50 ~ 70mm

Open Type | Shielded Type (ZZ) | Contact seal type (RS) | With snap groove | With snap ring

Main Dimension (mm)				Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.		Snap Groove dimensions (mm)					Stop Ring Dimensions (mm)		Mounting dimensions (mm)						Weight (kg)
d	D	B	r (min)	C_r	C_{0r}	Grease Lubrication	Oil Lubrication			a Max	b Min	D_1 Max	r_0 Max	r_n Min	D_2 Max	f Max	d_a Min		D_a Max	r_a Max	D_x Max	C_y Min	C_z Max	Max
50	65	7	0.3	6.60	6.10	9600	11000	**6810**		1.3	0.95	63.7	0.25	0.3	67.8	0.85	52	54	63	0.3	68.5	1.9	0.9	0.050
	72	12	0.6	13.40	11.20	9000	11000	**6910**		1.7	0.95	70.7	0.25	0.5	74.8	0.85	54	55.5	68	0.6	76	2.3	0.9	0.135
	80	10	0.6	13.20	11.30	8500	10000	**16010**		-	-	-	-	-	-	-	54	-	76	0.6	-	-	-	0.175
	80	16	1	21.80	16.60	8500	10000	**6010**		2.49	1.9	76.81	0.6	0.5	86.6	1.7	55	57.5	75	1	88	3.8	1.7	0.261
	90	20	1.1	35.00	23.20	7100	8300	**6210**		3.28	2.7	86.79	0.6	0.5	96.5	2.46	56.5	60	83.5	1	98	5.4	2.5	0.454
	110	27	2	62.00	38.50	6400	7500	**6310**		3.28	2.7	106.81	0.6	0.5	116.6	2.46	59	68.5	101	2	118	5.4	2.5	1.060
	130	30	2.1	83.00	49.50	5700	6700	**6410**		-	-	-	-	-	-	-	61	-	119	2	-	-	-	1.880
55	72	9	0.3	8.80	8.10	870	10000	**6811**		1.7	0.95	70.7	0.25	0.3	74.8	0.85	57	59	70	0.3	76	2.3	0.9	0.083
	80	13	1	16.00	13.30	8200	9600	**6911**		2.1	1.3	77.9	0.4	0.5	84.4	0.12	60	61.5	75	1	86	2.9	1.2	0.180
	90	11	0.6	18.60	15.30	7700	9000	**16011**		-	-	-	-	-	-	-	59	-	86	0.6	-	-	-	0.258
	90	18	1.1	28.30	21.20	7700	9000	**6011**		2.87	2.7	86.79	0.6	0.5	96.5	2.46	61.5	64	83.5	1	98	5	2.5	0.388
	100	21	1.5	43.50	29.20	6400	7600	**6211**		3.28	2.7	96.8	0.6	0.5	106.5	2.46	63	67	92	1.5	108	5.4	2.5	0.601
	120	29	2	71.50	45.00	5800	6800	**6311**		4.06	3.1	115.21	0.6	0.5	129.7	2.82	64	74	111	2	131.5	6.5	2.9	1.370
	140	33	2.1	89.00	54.00	5200	6100	**6400**		-	-	-	-	-	-	-	66	-	129	2	-	-	-	2.290
60	78	10	0.3	11.50	10.60	8000	9400	**6812**		1.7	1.3	76.2	0.4	0.3	82.7	1.12	62	64.5	76	0.3	84	2.5	1.2	0.106
	85	13	1	16.40	14.30	7600	8900	**6912**		2.1	1.3	82.9	0.4	0.5	89.4	1.12	65	66.5	80	1	91	2.9	1.2	0.193
	95	11	0.6	20.00	17.50	7000	8300	**16012**		-	-	-	-	-	-	-	64	-	91	0.6	-	-	-	0.283
	95	18	1.1	29.50	23.20	7000	8300	**6012**		2.87	2.7	91.82	0.6	0.5	101.6	2.46	66.5	69	88.5	1	103	5	2.5	0.414
	110	22	1.5	52.50	36.00	6000	7000	**6212**		3.28	2.7	106.81	0.6	0.5	116.6	2.46	68	75	102	1.5	118	5.4	2.5	0.783
	130	31	2.1	82.00	52.00	5400	6300	**6312**		4.06	3.1	125.22	0.6	0.5	139.7	2.82	71	80.5	119	2	141.5	6.5	2.9	1.730
	150	35	2.1	102.00	64.50	4800	5700	**6412**		-	-	-	-	-	-	-	71	-	139	2	-	-	-	2.770
65	85	10	0.6	11.60	11.00	7400	8700	**6813**		1.7	1.3	82.9	0.4	0.5	89.4	1.12	69	70	81	0.6	91	2.5	1.2	0.128
	90	13	1	17.40	16.10	7000	8200	**6913**		2.1	1.3	87.9	0.4	0.5	94.4	1.12	70	71.5	85	1	96	2.9	1.2	0.206
	100	11	0.6	20.50	18.70	6500	7700	**16013**		-	-	-	-	-	-	-	69	-	96	0.6	-	-	-	0.307
	100	18	1.1	30.50	25.20	6500	7700	**6013**		2.87	2.7	96.8	0.6	0.5	106.5	2.46	71.5	74	93.5	1	108	5	2.5	0.421
	120	23	1.5	57.50	40.00	5500	6500	**6213**		4.06	3.1	115.21	0.6	0.5	129.7	2.82	73	80.5	112	1.5	131.5	6.5	2.9	0.990
	140	33	2.1	92.50	60.00	4900	5800	**6313**		4.9	3.1	135.23	0.6	0.5	149.7	2.82	76	86	129	2	152	7.3	2.9	2.080
	160	37	2.1	111.00	72.50	4400	5200	**6413**		-	-	-	-	-	-	-	76	-	149	2	-	-	-	3.300
70	90	10	0.6	12.10	11.90	6900	8100	**6814**		1.7	1.3	87.9	0.4	0.5	94.4	1.12	74	75.5	86	0.6	96	2.5	1.2	0.137
	100	16	1	23.70	21.20	6500	7700	**6914**		2.5	1.3	97.9	0.4	0.5	104.4	1.12	75	77.5	95	1	106	3.3	1.2	0.334
	110	13	0.6	24.40	22.60	6100	7100	**16014**		-	-	-	-	-	-	-	74	-	106	0.6	-	-	-	0.441
	110	20	1.1	38.00	31.00	6100	7100	**6014**		2.87	2.7	106.81	0.6	0.5	116.6	2.46	76.5	80.5	103.5	1	118	5	2.5	0.604
	125	24	1.5	62.00	44.00	5100	6000	**6214**		4.06	3.1	120.22	0.6	0.5	134.7	2.82	78	85	117	1.5	136.5	6.5	2.9	1.070
	150	35	2.1	104.00	68.00	4600	5400	**6314**		4.9	3.1	145.24	0.6	0.5	159.7	2.82	81	92.5	139	2	162	7.3	2.9	2.520
	180	42	3	128.00	89.50	4100	4800	**6414**		-	-	-	-	-	-	-	83	-	167	2.5	-	-	-	4.830

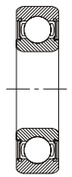
02 | Deep Groove Ball Bearing

Single Row Deep Groove Ball Bearing

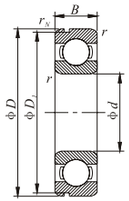


Open Type

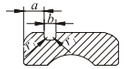
Shielded Type (ZZ)

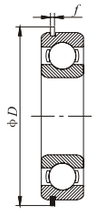


Contact seal type (RS)

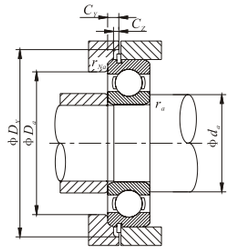


With snap groove





With snap ring

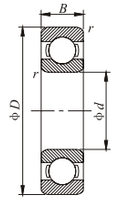


d 75~ 100mm

Main Dimension (mm)				Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.		Snap Groove dimensions (mm)					Stop Ring Dimensions (mm)		Mounting dimensions (mm)						Weight (kg)
d	*D*	*B*	*r (min)*	C_r	C_{0r}	*Grease Lubrication*	*Oil Lubrication*			*a Max*	*b Min*	D_1 *Max*	r_0 *Max*	r_n *Min*	D_2 *Max*	*f Max*	d_a *Min*	D_a *Max*	r_a *Max*	D_x *Max*	C_y *Min*	C_z *Max*	*Max*
75	95	10	0.6	12.50	12.90	6400	7600	**6815**		1.7	1.3	92.9	0.4	0.5	99.4	1.12	79	80	91	0.6	101	2.5	1.2	0.145
	105	16	1	24.40	22.60	6100	7200	**6915**		2.5	1.3	102.6	0.4	0.5	110.7	1.12	80	82.5	100	1	112	3.3	1.2	0.353
	115	13	0.6	25.00	24.00	5700	6700	**16015**		-	-	-	-	-	-	-	79	-	111	0.6	-	-	-	0.464
	115	20	1.1	39.50	33.50	5700	6700	**6015**		2.87	2.7	111.81	0.6	0.5	121.6	2.46	81.5	85.5	108.5	1	123	5	2.5	0.649
	130	25	1.5	66.00	46.50	4800	5600	**6215**		4.06	3.1	125.22	0.6	0.5	139.7	2.82	83	90.5	122	1.5	141.5	6.5	2.9	1.180
	160	37	2.1	113.00	77.00	4300	5000	**6315**		4.9	3.1	155.22	0.6	0.5	169.7	2.82	86	99	149	2	172	7.3	2.9	3.020
	190	45	3	138.00	99.00	3800	4500	**6415**		-	-	-	-	-	-	-	88	-	177	2.5	-	-	-	5.720
80	100	10	0.6	12.70	13.30	6000	7100	**6816**		1.7	1.3	97.9	0.4	0.5	104.4	1.12	84	85	96	0.6	106	2.5	1.2	0.154
	110	16	1	24.90	24.00	5700	6700	**6916**		2.5	1.3	107.6	0.4	0.5	115.7	1.12	85	88	105	1	117	3.3	1.2	0.373
	125	14	0.6	25.40	25.10	5300	6200	**16016**		-	-	-	-	-	-	-	84	-	121	0.6	-	-	-	0.597
	125	22	1.1	47.50	40.00	5300	6200	**6016**		2.87	3.1	120.22	0.6	0.5	134.7	2.82	86.5	91.5	118.5	1	136.5	5.3	2.9	0.854
	140	26	2	72.50	53.00	4500	5300	**6216**		4.9	3.1	135.23	0.6	0.5	149.7	2.82	89	95.5	131	2	152	7.3	2.9	1.400
	170	39	2.1	123.00	86.50	4000	4700	**6316**		5.69	3.5	163.65	0.6	0.5	182.9	3.1	91	105	159	2	185	8.4	3.1	3.590
	200	48	3	164.00	125.00	3600	4200	**6416**		-	-	-	-	-	-	-	93	-	187	2.5	-	-	-	6.760
85	110	13	1	18.70	19.00	5700	6700	**6817**		2.1	1.3	107.6	0.4	0.5	115.7	1.12	90	91	105	1	117	2.9	1.2	0.270
	120	18	1.1	32.00	29.60	5400	6300	**6917**		3.3	1.3	117.6	0.4	0.5	125.7	1.12	91.5	94	113.5	1	127	4.1	1.2	0.536
	130	14	0.6	25.90	26.20	5000	5900	**16017**		-	-	-	-	-	-	-	89	-	126	0.06	-	-	-	0.626
	130	22	1.1	49.50	43.00	5000	5900	**6017**		2.87	3.1	125.22	0.6	0.5	139.7	2.82	91.5	97	123.5	1	141.5	5.3	2.9	0.890
	150	28	2	83.50	64.00	4200	5000	**6217**		4.9	3.1	145.24	0.6	0.5	159.7	2.82	94	103	141	2	162	7.3	2.9	1.790
	180	41	3	133.00	97.00	3800	4500	**6317**		5.69	3.5	173.66	0.6	0.5	192.9	3.1	98	112	167	2.5	195	8.4	3.1	4.230
90	115	13	1	19.00	19.70	5400	6300	**6818**		2.1	1.3	112.6	0.4	0.5	120.7	1.12	95	96	110	1	122	2.9	1.2	0.285
	125	18	1.1	33.00	31.50	5100	6000	**6918**		3.3	1.3	122.6	0.4	0.5	130.7	1.12	96.5	99	118.5	1	132	4.1	1.2	0.554
	140	16	1	33.50	33.50	4700	5600	**16018**		-	-	-	-	-	-	-	95	-	135	1	-	-	-	0.848
	140	24	1.5	58.00	49.50	4700	5600	**6018**		3.71	3.1	135.23	0.6	0.5	149.7	2.82	98	102	132	1.5	152	6.1	2.9	1.020
	160	30	2	96.00	71.50	4000	4700	**6218**		4.9	3.1	155.22	0.6	0.5	169.7	2.82	99	109	151	2	172	7.3	2.9	2.150
	190	43	3	143.00	107.00	3600	4200	**6318**		5.69	3.5	183.64	0.6	0.5	202.9	3.1	103	118	177	2.5	205	8.4	3.1	4.910
95	120	13	1	19.30	20.50	5000	5900	**6819**		2.1	1.3	117.6	0.4	0.5	125.7	1.12	100	101	115	1	127	2.9	1.2	0.300
	130	18	1.1	33.50	33.50	4800	5700	**6919**		3.3	1.3	127.6	0.4	0.5	135.7	1.12	101.5	104	123.5	1	137	4.1	1.2	0.579
	145	16	1	34.50	35.00	4500	5300	**16019**		-	-	-	-	-	-	-	100	-	140	1	-	-	-	0.885
	145	24	1.5	60.50	54.00	4500	5300	**6019**		3.71	3.1	140.23	0.6	0.5	154.7	2.82	103	109	137	1.5	157	6.1	2.9	1.080
	170	32	2.1	109.00	82.00	3700	4400	**6219**		5.69	3.5	163.65	0.6	0.5	182.9	3.1	106	116	159	2	185	8.4	3.1	2.620
	200	45	3	153.00	119.00	3300	3900	**6319**		5.69	3.5	193.65	0.6	0.5	212.9	3.1	108	125	187	2.5	215	8.4	3.1	5.670
100	125	13	1	19.60	21.20	4800	5600	**6820**		2.1	1.3	122.6	0.4	0.5	130.7	1.12	105	106	120	1	132	2.9	1.2	0.313
	140	20	1.1	41.00	39.50	4500	5300	**6920**		3.3	1.9	137.6	0.6	0.5	145.7	1.7	106.5	110	133.5	1	147	4.7	1.7	0.785
	150	16	1	35.00	36.50	4200	5000	**16020**		-	-	-	-	-	-	-	105	-	145	1	-	-	-	0.910
	150	24	1.5	60.00	54.00	4200	5000	**6020**		3.71	3.1	145.24	0.6	0.5	159.7	2.82	108	110	142	1.5	162	6.1	2.9	1.150
	180	34	2.1	122.00	93.00	3500	4200	**6220**		5.69	3.5	173.66	0.6	0.5	192.9	3.1	111	122	169	2	195	8.4	3.1	3.140
	215	47	3	173.00	141.00	3200	3700	**6320**		-	-	-	-	-	-	-	113	133	202	2.5	-	-	-	7.000

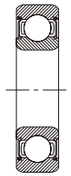
02 | Deep Groove Ball Bearing

Single Row Deep Groove Ball Bearing



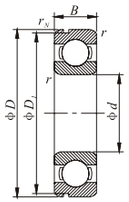
d 105~ 150mm

Open Type

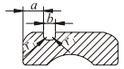


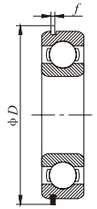
Shielded Type (ZZ)

Contact seal type (RS)

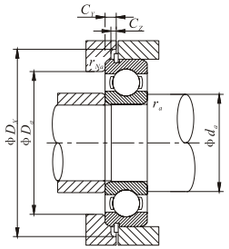


With snap groove





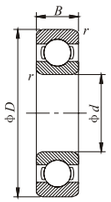
With snap ring

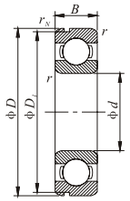


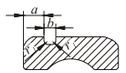
Main Dimension (mm)				Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.		Snap Groove dimensions (mm)					Stop Ring Dimensions (mm)		Mounting dimensions (mm)							Weight (kg)
d	D	B	r (min)	C_r	C_{0r}	Grease Lubrication	Oil Lubrication			a Max	b Min	D_1 Max	r_0 Max	r_n Min	D_2 Max	f Max	d_a Min		D_a Max	r_a Max	D_x Max	C_y Min	C_z Max	Max
105	130	13	1	19.80	22.00	4600	5400	**9821**		2.1	1.3	127.6	0.4	0.5	135.7	1.12	110	-	125	1	137	2.9	1.2	0.330
	145	20	1.1	42.50	42.00	4300	5100	**6921**		3.3	1.9	142.6	0.6	0.5	150.7	1.7	111.5	115	138.5	1	152	4.7	1.7	0.816
	160	18	1	52.00	50.50	4000	4700	**16021**		-	-	--	-	-	-	-	110	-	155	1	-	-	-	1.200
	160	26	2	72.50	65.50	4000	4700	**6021**		3.71	3.1	155.22	0.6	0.5	169.7	2.82	114	119	151	2	172	6.1	2.9	1.590
	190	36	2.1	133.00	105.00	3400	4000	**6221**		5.69	3.5	183.64	0.6	0.5	202.9	3.1	116	125	179	2	205	8.4	3.1	3.700
	225	49	3	184.00	153.00	3000	3600	**6321**		-	-	-	-	-	-	-	118	134	212	2.5	-	-	-	8.050
110	140	16	1	24.90	28.20	4300	5100	**6822**		2.5	1.9	137.6	0.6	0.5	145.7	1.7	115	-	135	1	147	3.9	1.7	0.515
	150	20	1.1	43.50	44.50	4100	4800	**6922**		3.3	1.9	147.6	0.6	0.5	155.7	1.7	116.5	120	143.5	1	157	4.7	1.7	0.849
	170	19	1	57.50	56.50	3800	4500	**16022**		-	-	-	-	-	-	-	115	-	165	-	-	-	-	1.460
	170	28	2	82.00	73.00	3800	4500	**6022**		3.71	3.5	163.55	0.6	0.5	182.9	3.1	119	126	161	2	185	6.4	3.1	1.960
	200	38	2.1	144.00	117.00	3200	3800	**6222**		5.69	3.5	193.65	0.6	0.5	212.9	3.1	121	132	189	2	215	8.4	3.1	4.360
	240	50	3	205.00	179.00	2900	3400	**6322**		-	-	-	-	-	-	-	123	149	227	2.5	-	-	-	9.540
120	150	16	1	28.90	33.00	4000	4700	**6824**		2.5	1.9	147.6	0.6	0.5	155.7	1.7	125	-	145	1	157	3.9	1.7	0.555
	165	22	1.1	53.00	54.00	3800	4400	**6924**		3.7	1.9	161.8	0.6	0.5	171.5	1.7	126.5	-	158.5	1	173	5.1	1.7	1.150
	180	19	1	63.00	63.50	3500	4100	**16024**		-	-	-	-	-	-	-	125	-	175	1	-	-	-	1.560
	180	28	2	85.00	79.50	3500	4100	**6024**		3.71	3.5	173.66	0.6	0.5	192.9	3.1	129	136	171	2	195	6.4	3.1	2.070
	215	40	2.1	155.00	131.00	2900	3400	**6224**		-	-	-	-	-	-	-	131	143	204	2	-	-	-	5.150
	260	55	3	207.00	185.00	2600	3100	**6324**		-	-	-	-	-	-	-	133	-	247	2.5	-	-	-	12.40
130	165	18	1.1	37.0	41.0	3700	4300	**6826**		3.3	1.9	161.8	0.6	0.5	171.5	1.7	136.5	-	158.5	1	173	4.7	1.7	0.800
	180	24	1.5	65.0	67.5	3500	4100	**6926**		3.7	1.9	176.8	0.6	0.5	186.5	1.7	138	-	172	1.5	188	5.1	1.7	1.520
	200	22	1.1	80.0	79.5	3200	3800	**16026**		-	-	-	-	-	-	-	136.5	-	193.5	1	-	-	-	2.310
	200	33	2	106.0	101.0	3200	3800	**6026**		5.69	3.5	193.65	0.6	0.5	212.9	3.1	139	148	191	2	215	8.4	3.1	3.160
	230	40	3	167.0	146.0	2700	3100	**6226**		-	-	-	-	-	-	-	143	-	217	2.5	-	-	-	5.820
	280	58	4	229.0	214.0	2400	2800	**6326**		-	-	-	-	-	-	-	146	-	264	3	-	-	-	15.30
140	175	18	1.1	38.5	44.5	3400	4000	**6828**		3.3	1.9	171.8	0.6	0.5	181.5	1.7	146.5	-	168.5	1	183	4.7	1.7	0.850
	190	24	1.5	66.5	71.5	3200	3800	**6928**		3.7	1.9	186.8	0.6	0.5	096.5	1.7	148	-	182	1.5	198	5.1	1.7	1.620
	210	24	1.5	66.5	71.5	3200	3500	**16028**		-	-	-	-	-	-	-	146.5	-	203.5	1	-	-	-	2.450
	210	33	2	110.0	109.0	3000	3500	**6028**		-	-	-	-	-	-	-	149	158	201	2	-	-	-	3.350
	250	42	3	166.0	150.0	2500	2900	**6228**		-	-	-	-	-	-	-	153	-	237	2.5	-	-	-	7.570
	300	62	4	253.0	246.0	2200	2600	**6328**		-	-	-	-	-	-	-	156	-	284	3	-	-	-	18.50
150	190	20	1.1	47.5	55.0	3100	3700	**6830**		3.3	1.9	186.8	0.6	0.5	196.5	1.7	156.5	-	183.5	1	198	4.7	1.7	1.160
	210	28	2	85.0	90.5	3000	3500	**6930**		-	-	-	-	-	-	-	159	-	201	2	-	-	-	2.470
	225	24	1.1	96.5	101.0	2800	3200	**16030**		-	-	-	-	-	-	-	156.5	-	218.5	1	-	-	-	3.070
	225	35	2.1	126.0	126.0	2800	3200	**6030**		-	-	-	-	-	-	-	161	169	214	2	-	-	-	4.080
	270	45	3	176.0	168.0	2300	2700	**6230**		-	-	-	-	-	-	-	163	-	257	2.5	-	-	-	9.410
	320	65	4	274.0	284.0	2100	2400	**6330**		-	-	-	-	-	-	-	166	-	304	3	-	-	-	22.00

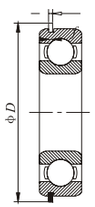
Estd. 1983 DPI BEARINGS

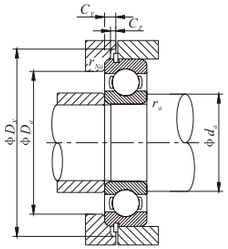
Single Row Deep Groove Ball Bearing











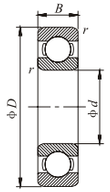
d 160~ 170mm

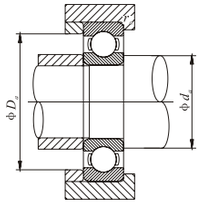
Open Type | Shielded Type (ZZ) | Contact Seal type (RS) | With snap groove | With snap ring

Main Dimension (mm)				Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.		Snap Groove dimensions (mm)					Stop Ring Dimensions (mm)		Mounting dimensions (mm)						Weight (kg)
d	*D*	*B*	*r (min)*	C_r	C_{0r}	*Grease Lubrication*	*Oil Lubrication*			*a Max*	*b Min*	D_1 *Max*	r_0 *Max*	r_n *Min*	D_2 *Max*	*f Max*	d_a *Min*		D_a *Max*	r_a *Max*	D_x *Max*	C_y *Min*	C_z *Max*	*Max*
160	200	20	1.1	48.5	57.0	2900	3400	**6832**		3.3	1.9	196.8	0.6	0.5	206.5	1.7	166.5	-	193.5	1	208	4.7	1.7	1.230
	220	28	2	87.0	96.0	2800	3300	**6932**		-	-	-	-	-	-	-	169	-	211	2	-	-	-	2.610
	240	25	1.5	99.0	108.0	2600	3000	**16032**		-	-	-	-	-	-	-	168	-	232	1.5	-	-	-	3.640
	240	38	2.1	143.0	144.0	2600	3000	**6032**		-	-	-	-	-	-	-	171	183	229	2	-	-	-	5.050
	290	48	3	185.0	186.0	2100	2500	**6232**		-	-	-	-	-	-	-	173	-	277	2.5	-	-	-	11.70
	340	68	4	278.0	286.0	1900	2300	**6332**		-	-	-	-	-	-	-	176	-	324	3	-	-	-	26.00
170	215	22	1.1	60.0	70.5	2700	3200	**6834**		-	-	-	-	-	-	-	176.5	-	208.5	1	-	-	-	1.630
	230	28	2	86.0	95.5	2600	3100	**6934**		-	-	-	-	-	-	-	179	-	221	2	-	-	-	2.740
	260	28	1.5	119.0	128.0	2400	2800	**16034**		-	-	-	-	-	-	-	178	-	252	1.5	-	-	-	4.930
	260	42	2.1	168.0	172.0	2400	2800	**6034**		-	-	-	-	-	-	-	181	-	249	2	-	-	-	6.760
	310	52	4	212.0	223.0	2000	2400	**6234**		-	-	-	-	-	-	-	186	-	294	3	-	-	-	14.50
	360	72	4	325.0	355.0	1800	2100	**6334**		-	-	-	-	-	-	-	186	-	344	3	-	-	-	30.70

02 | Deep Groove Ball Bearing

Single Row Deep Groove Ball Bearing





***d* 180~ 200mm**

Open Type

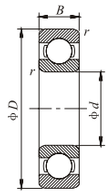
Main Dimension (mm)				Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.	Mounting dimensions (mm)			Weight (kg)
d	*D*	*B*	*r* *(min)*	C_r	C_{0r}	*Grease Lubrication*	*Oil Lubrication*		d_a *Min*	D_a *Max*	r_a *Max*	*Max*
180	225	22	1.1	60.5	73.0	2600	3000	**6836**	186.5	218.5	1	2.030
	250	33	2	110.0	119.0	2400	2900	**6936**	189	241	2	4.760
	280	31	2	117.0	134.0	2300	2700	**6036**	189	271	2	6.490
	280	46	2.1	189.0	199.0	2300	2700	**16036**	191	269	2	8.800
	320	52	4	227.0	241.0	1900	2200	**6236**	196	304	3	15.10
	380	75	4	355.0	405.0	1700	2000	**6336**	196	364	3	35.60
190	240	24	1.5	73.0	88.0	2400	2900	**6838**	198	232	1.5	2.620
	260	33	2	113.0	127.0	2300	2700	**6938**	199	251	2	4.980
	290	31	2	134.0	156.0	2100	2500	**16038**	199	281	2	6.770
	290	46	2.1	197.0	215.0	2100	2500	**6038**	201	279	2	9.180
	340	55	4	255.0	281.0	1800	2100	**6238**	206	324	3	18.20
	400	78	5	355.0	415.0	1600	1900	**6338**	210	380	4	41.00
200	250	24	1.5	74.0	91.5	2300	2700	**6840**	208	242	1.5	2.730
	280	38	2.1	157.0	168.0	2200	2600	**6940**	211	269	2	7.100
	310	34	2	142.0	160.0	2000	2400	**16040**	209	301	2	8.680
	310	51	2.1	218.0	243.0	2000	2400	**6040**	211	299	2	11.90
	360	58	4	269.0	310.0	1700	2000	**6240**	216	344	3	21.60
	420	80	5	410.0	500.0	1500	1800	**6340**	220	400	4	46.30

Notes

Date:.....

02 | Deep Groove Ball Bearing

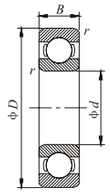
Stainless Steel Ball Bearing



Boundary dimensions (mm)				Basic load ratings (N)		Speed ratings (rpm)		Bearing No.		Abutment and filter dimensions (mm)				Weight (kg)
d	*D*	*B*	*(r)*	*Dynamic (Cr)*	*Static (Cor)*	*Grease*	*Oil*			*Ds min*	*Ds max*	*Dh max*	*R max*	
7	19	6	0.3	2240	910	39000	33000	**SS 607**		9	-	17	0.3	0.008
8	22	7	0.3	3350	1400	36000	31000	**SS 608**		10	-	20	0.3	0.012
9	24	7	0.3	3400	1450	33000	29000	**SS 609**		11	-	22	0.3	0.014
10	26	8	0.3	4580	1980	28000	20000	**SS 6000**		12	13.5	24	0.3	0.019
12	28	8	0.3	5100	2380	26000	19000	**SS 6001**		14	16	26	0.3	0.022
15	32	9	0.3	5600	2840	24000	18000	**SS 6002**		17	19	30	0.3	0.031
17	35	10	0.3	6800	3350	22000	17000	**SS 6003**		19	21	33	0.3	0.04
20	42	12	0.6	9400	5050	19000	15000	**SS 6004**		24	26	38	0.6	0.071
25	47	12	0.6	10100	5850	17000	13000	**SS 6005**		29	30.5	43	0.6	0.084
30	55	13	1	13200	8300	14000	10000	**SS 6006**		35	37	50	1	0.11
35	62	14	1	16000	10300	12000	9000	**SS 6007**		40	42	57	1	0.162
40	68	15	1	16800	11500	11000	8500	**SS 6008**		45	47	63	1	0.199
45	75	16	1	21000	15100	10000	8000	**SS 6009**		50	52.5	70	1	0.23
50	80	16	1	21800	16600	9000	7000	**SS 6010**		55	57.5	75	1	0.272
55	90	18	1.1	28300	21200	7700	8300	**SS 6011**		62	64	83	1	0.388
60	95	18	1.1	29500	23200	7000	8300	**SS 6012**		67	69	88	1	0.414
65	100	18	1.1	30500	25200	6500	7700	**SS 6013**		72	73	93	1	0.421
70	110	20	1.1	38000	31000	6100	7100	**SS 6014**		77	80.5	103	1	0.604
75	115	20	1.1	39500	33500	5700	6700	**SS 6015**		82	85.5	108	1	0.649

02 | Deep Groove Ball Bearing

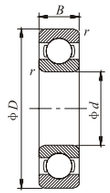
Stainless Steel Ball Bearing



Boundary dimensions (mm)				Basic load ratings (N)		Speed ratings (rpm)		Bearing No.		Abutment and filter dimensions (mm)				Weight (kg)
d	*D*	*B*	*r (min)*	*Dynamic (Cr)*	*Static (Cor)*	*Grease*	*Oil*			*Ds min*	*Ds max*	*Dh max*	*R max*	
6	19	6	0.3	2340	885	39000	33000	**SS 626**		8.0	-	17	0.3	0.008
7	22	7	0.3	3350	1400	36000	31000	**SS 627**		9.0	-	20	0.3	0.014
9	26	8	0.3	4550	1960	31000	27000	**SS 629**		11.0	-	24	0.3	0.019
10	30	9	0.6	5100	2380	26000	19000	**SS 6200**		14.0	16.0	26	0.6	0.032
12	32	10	0.6	6100	2750	24000	18000	**SS 6201**		16.0	17.5	28	0.6	0.035
15	35	11	0.6	7750	3600	22000	17000	**SS 6202**		19.0	20.5	31	0.6	0.045
17	40	12	0.6	9600	4600	20000	16000	**SS 6203**		21.0	23.0	36	0.6	0.064
20	47	14	1.0	12800	6650	18000	14000	**SS 6204**		24.0	28.0	42	1.0	0.103
25	52	15	1.0	14000	7880	16000	12000	**SS 6205**		30.0	32.0	47	1.0	0.127
30	62	16	1.0	19500	11500	13000	9500	**SS 6206**		35.0	39.0	57	1.0	0.200
35	72	17	1.1	25500	15200	11000	8500	**SS 6207**		41.5	45.0	65.5	1.1	0.298
40	80	18	1.1	29100	17800	10000	8000	**SS 6208**		46.5	51.0	73.5	1.1	0.368
45	85	19	1.1	32500	20400	9000	7000	**SS 6209**		51.5	55.5	78.5	1.1	0.416
50	90	20	1.1	35000	23200	8500	6700	**SS 6210**		56.5	60.0	83.5	1.1	0.463
55	100	21	1.5	43500	29200	6400	7600	**SS 6211**		63.0	67.0	92	1.5	0.601
60	110	22	1.5	52500	36000	6000	7000	**SS 6212**		68.0	75.0	102	1.5	0.783

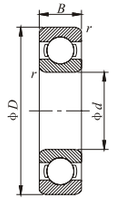
02 | Deep Groove Ball Bearing

Stainless Steel Ball Bearing



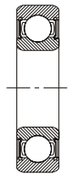
Boundary dimensions (mm)				Basic load ratings (N)		Speed ratings (rpm)		Bearing No.		Abutment and filter dimensions (mm)				Weight (kg)
d	*D*	*B*	*(r)*	*Dynamic (Cr)*	*Static (Cor)*	*Grease*	*Oil*			*Ds min*	*Ds max*	*Dh max*	*R max*	
10	35	11	0.6	8200	3500	23000	27000	**SS 6300**		14.0	17.0	31.0	0.6	0.053
12	37	12	1.0	9700	4200	20000	24000	**SS 6301**		18.0	18.5	31.0	1.0	0.060
15	42	13	1.0	11400	5450	17000	21000	**SS 6302**		21.0	23.0	36.0	1.0	0.082
17	47	14	1.0	13500	6550	16000	19000	**SS 6303**		23.0	25.0	41.0	1.0	0.115
20	52	15	1.0	15900	7900	14000	17000	**SS 6304**		27.0	28.5	45.0	1.0	0.144
25	62	17	1.0	21200	10900	12000	14000	**SS 6305**		32.0	35.0	55.0	1.0	0.232
30	72	19	1.0	26700	15000	10000	12000	**SS 6306**		37.0	43.0	65.0	1.0	0.360
35	80	21	1.5	33500	19100	8800	10000	**SS 6307**		43.5	47.0	71.5	1.5	0.457
40	90	23	1.5	40500	24000	7800	9200	**SS 6308**		48.5	54.0	81.5	1.5	0.630
45	100	25	1.5	53000	32000	7000	8200	**SS 6309**		53.5	61.5	91.5	1.5	0.814
50	110	27	2.0	62000	38500	6400	7500	**SS 6310**		60.0	68.5	100.0	2.0	1.070
40	80	18	1.1	29100	17800	10000	8000	**SS 6208**		46.5	51.0	73.5	1.1	0.368
45	85	19	1.1	32500	20400	9000	7000	**SS 6209**		51.5	55.5	78.5	1.1	0.416
50	90	20	1.1	35000	23200	8500	6700	**SS 6210**		56.5	60.0	83.5	1.1	0.463
55	100	21	1.5	43500	29200	6400	7600	**SS 6211**		63.0	67.0	92	1.5	0.601
60	110	22	1.5	52500	36000	6000	7000	**SS 6212**		68.0	75.0	102	1.5	0.783

Ball Bearing Series



Open Type

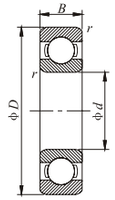
Shielded Type (ZZ)



Contact Seal type (2RS)

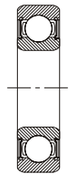
Boundary dimensions (mm)			Basic load ratings (N)		Speed ratings (rpm)		Bearing No.	Weight (kg)
d	*D*	*B*	*Dynamic (Cr)*	*Static (Cor)*	*Grease*	*Oil*		
12.700	33.338	9.525	5162	3026	21000	28500	**RLS 4**	0.037
1/2	1-5/16	3/8						
15.875	39.688	11.112	7387	4361	18000	24000	**RLS 5**	0.059
5/8	1-9/16	7/16						
19.050	47.625	14.288	10547	6542	15000	21000	**RLS 6**	0.109
3/4	1-7/8	9/16						
22.225	50.800	14.288	10725	6542	14300	19500	**RLS 7**	0.116
7/8	2	9/16						
25.400	57.150	15.875	13795	8900	12700	17000	**RLS 8**	0.169
1	2-1/4	5/8						
28.575	63.500	15.875	14997	10013	11700	15500	**RLS 9**	0.220
1-1/8	2-1/2	5/8						
31.750	69.850	17.463	20470	13929	10600	14400	**RLS 10**	0.276
1-1/4	2-3/4	11/16						
34.925	76.200	17.463	23051	15842	9800	13200	**RLS 11**	0.333
1-3/8	3	11/16						
38.100	82.550	19.050	25810	17889	9000	12200	**RLS 12**	0.418
1-1/2	3-1/4	3/4						
41.275	88.900	19.050	28658	20070	8400	11330	**RLS 13**	0.481
1-5/8	3-1/2	3/4						
44.45	95.250	20.638	31595	22339	7800	10600	**RLS 14**	0.594
1-3/4	3-3/4	13/16						
47.625	101.600	20.638	37380	27857	7200	9800	**RLS 15**	0.708
1-7/8	4	13/16						

Ball Bearing Series



Open Type

Shielded Type (ZZ)



Contact Seal type (2RS)

Boundary dimension (mm)			Basic load ratings (N)		Speed ratings (rpm)		Bearing No.	Weight (kg)
d	*D*	*B*	*Dynamic (Cr)*	*Static (Cor)*	*Grease*	*Oil*		
12.700	41.275	15.875	9034	5607	18500	25000	**RMS 4**	0.096
1/2	1-5/8	5/8						
15.875	46.038	15.875	9345	5607	16500	22000	**RMS 5**	0.117
5/8	1-13/16	5/8						
19.050	50.800	17.463	12193	7788	14700	20000	**RMS 6**	0.156
3/4	2	11/16						
22.225	57.150	17.463	14196	9123	13300	18000	**RMS 7**	0.197
7/8	2-1/4	11/16						
25.400	63.500	19.050	16332	10547	12200	16500	**RMS 8**	0.262
1	2-1/2	3/4						
28.575	71.438	20.638	22695	15842	10800	14500	**RMS 9**	0.347
1-1/8	2-13/16	13/16						
31.750	79.375	22.225	27902	19536	9800	13200	**RMS 10**	0.476
1-1/4	3-1/8	7/8						
34.925	88.900	22.225	33598	23852	8800	11900	**RMS 11**	0.608
1-3/8	3-1/2	7/8						
38.100	95.250	23.813	36490	26211	8200	11000	**RMS 12**	0.753
1-1/2	3-3/4	15/16						
41.275	101.600	23.813	40495	30038	7700	10300	**RMS 13**	0.857
1-5/8	4	15/16						
44.45	107.950	26.998	43254	31195	7100	9600	**RMS 14**	1.061
1-3/4	4-1/4	1-1/16						
47.625	114.300	26.998	51175	38715	6600	8900	**RMS 15**	1.220
1-7/8	4-1/2	1-1/16						

Angular Contact Ball Bearing

Angular contact ball bearings are ideal for applications which require accuracy and speed. These kinds of bearings are required to carry a combined load. The following different types of angular contact bearings are available:

1.Shield / Sealed type.

The standard contact angles are 15 degrees (C), 30 degrees (A) and 40 degrees (B). Smaller contact angles are suitable for higher speed applications. large contact angles provide better axial resistance. These bearings are also available as matched pair bearings where they are matched as follows:

a) Bact-to-Back (DB): These are arranged so that the distance between the load centers is long and hence this arrangement will sustain larger moment loads.

b) Face-toFace (DF): These are arranged so that the distance between the load centers is short and hence ability to carry moment loads is smaller.

c) Tandem Arrangement: This arrangement is useful for applications that require high axial load.

2.Double Row Contact Bearings:

These consist of two single row angular contact ball bearings matched back-to-back with integrated inner and outer rings.

3.Four Point Contact Bearings:

These have a contact angle of 35 degrees. The inner ring is divided into 2 pieces. These are very speacialized bearings.

The standard cages used are pressed steel cages. Additionally copper alloy machined cages are also available.

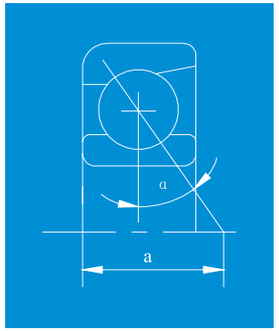
For details on boundary dimensions and specifications please refer to the tables overleaf

Radial Trust Ball bearing

Angular contact ball bearings can hear radial loading and axial load simultaneously, and single row angular contact ball bearings can only bear single direction axial load, therefore, they are often used in pairs, When used in pairs, the paired angular contact ball bearings with preset gap are most convenient. The contact angles between steel balls and the inner race/outer race are 15°, 25° and 40°. The larger its contact angle is the higher axial load it can bear. Smaller contact angle is good for high speed rotation. Generally, high precision and high speed bearings often adopt the contact angle of 15°.

1. Single Row angular contact bearing

The type of bearings has contact angle, so they are suited to bear single direction axial load, or combined load.



Structurally, they generate axial thrust load after bearing radial loading, so two bearings shall be ised in pairs, or more that two back to back duplexes. The rigidity od single row angular contact ball bearings can be improved through pretension. Therefore, they are applied to the principal axes of high rotation precision machine tools. etc.

The contact angles of standard products include 15° (code C). 25° (code AC) and 40° (code AC). The retainers of bearings with 15° and 25 ° contact angles are often made of bakelite. The materials of the retainers of 40° contact angle bearings include copper, nylon, steel sheet etc.

In addition, where the retainer structures of the same bearing specifications are different and the number of ball varies, the load ratings are also different from the values in dimension table.

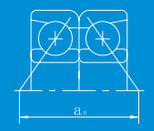
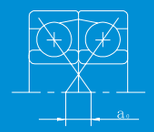
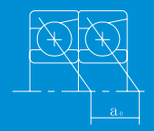
For 15° (code C) and 25° code (AC) angular contact ball bearings, high precision above P4 grade can be achieved.

These products are especially suited for the principal axes of high speed and high machine tools and spinning frames.

2. Paired duplex angular contact ball bearing

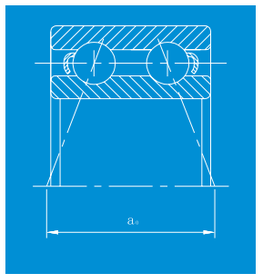
The structures and features of paired duplex angular contact ball bearings are shown in Table 1.

Table 1 the structures and features of paired duplex angular contact ball bearing

Standard	Structures	Features
	Back to back paired duplex E.g: 7209 CDB	Can bear radial loading and axial load from two from directions. The application point distance a0 is large, are applicable where the torque load is large.
	Back to back paired duplex E.g: 7209 BDF	Can bear radial loading and axial load from two from directions. Compared with back to back paired duplex, the application point distance is smaller, so the torque load capacity is no good.
	Parallel paired duplex E.g: 7209 CDT	Can bear radial loading and axial load from one directions. Bearing axial load with two bearings, so used where the single direction load is large.

Note: The dimension table does not provide the value of the application point a0. Please contact technical center of DPI if required.

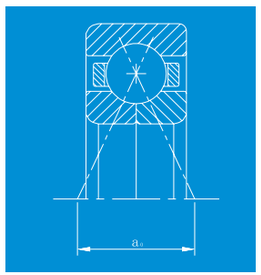
3. Double row angular contact ball bearing



The inner and outer races of the back to back duplex bearings are combined into one structure, which can bear tow directional axial loads, and the torque load capacity is large. They can be used as restrained end bearings.

Pressed retainers or nylon retainers are often used.

4. Four point contact ball bearing



Inner race is divided into two, and one bearing bears axial from two directions.

Contact angle is 35°, axial load capacity is high, suited to bear net axial load, or resultant load whose axial load is high.

Copper alloy lathe retainers are often ised.

Single row angular contact ball bearing

Static equivalent load $P_0 = X_0 F_r + Y_0 F_0$

Nominal contact angle	Single row, series combination		Back combination, face combination	
	X_6	Y_8	X_6	Y_8
15˚	0.5	0.46	1	0.92
25˚	0.5	0.38	1	0.76
40˚	0.5	0.26	1	0.52

Note: When the single row or series combination $P_0 > 0.5Fr + Y_0 Fa$, $P_0 = Fr$

Static equivalent load $P = XF_r + Y F_a$

Nominal contact angle	if$\frac{0Fa^*}{C_{or}}$	e	Single row, series combination				Back combination, face combination			
			$F_a/F_r \leq e$		$F_a/F_r > e$		$F_a/F_r \leq e$		$F_a/F_r > e$	
			X	Y	X	Y	X	Y	X	Y
15˚	0.178	0.38	1	0	0.44	1.47	1	1.65	0.72	2.39
	0.357	0.40	1	0	0.44	1.40	1	1.57	0.72	2.28
	0.714	0.43	1	0	0.44	1.30	1	1.46	0.72	2.11
	1.070	0.46	1	0	0.44	1.23	1	1.38	0.72	2.00
	1.430	0.47	1	0	0.44	1.19	1	1.34	0.72	1.93
	2.140	0.50	1	0	0.44	1.12	1	1.26	0.72	1.82
	3.570	0.55	1	0	0.44	1.02	1	1.14	0.72	1.66
	5.350	0.56	1	0	0.44	1.00	1	1.12	0.72	1.63
25˚	-	0.68	1	0	0.41	0.87	1	0.92	0.67	1.41
45˚	-	1.14	1	0	0.38	0.57	1	0.55	0.57	0.93

Note: * I = 2 in back combination and series combination, i = 1 in series combination.

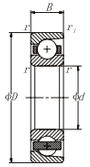
Double row angular contact ball bearing

$P_0 = XF_r + YF_a$

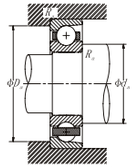
$F_a/F_r \leq e$		$F_a/F_r > e$		e
X	Y	X	Y	
1	0.92	0.67	1.41	0.68

Static equivalent load $P = F_r + 76F_a$
Static equivalent load $P_a = F_a$
Static equivalent load $P_{oa} = F_a$

Angular Contact Ball Bearing



Single Row

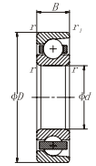


7000 C Type α = 15°
7000 A C Type α = 25°
7000 B Type α = 40°

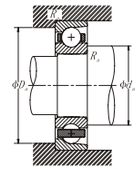
d 10 ~ 20mm

Main Dimension (mm)						Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.	Weight (Single row) (kg)
d	*D*	*B*	*2B*	*r (min)*	*r (max)*	C_r	C_{0r}	*Grease Lubrication*	*Oil Lubrication*		
10	26	8	16	0.30	0.15	5.02	2.31	29000	39000	**7000C**	0.023
	26	8	16	0.30	0.15	4.80	2.17	29000	39000	**7000AC**	0.023
	30	9	18	0.60	0.30	5.88	3.06	28000	37000	**7200C**	0.029
	30	9	18	0.60	0.30	5.63	2.87	28000	37000	**7200AC**	0.029
	30	9	18	0.60	0.30	5.00	2.52	24000	32000	**7200B**	0.029
	35	11	22	0.60	0.30	10.09	4.91	26000	34000	**7300C**	0.039
	35	11	22	0.60	0.30	9.65	4.61	26000	34000	**7300AC**	0.040
	35	11	22	0.60	0.30	8.80	4.10	22000	29000	**7300B**	0.041
12	28	8	16	0.30	0.15	5.45	2.74	26000	35000	**7001C**	0.025
	28	8	16	0.30	0.15	5.21	2.57	26000	35000	**7001AC**	0.025
	32	10	20	0.60	0.30	7.72	4.02	25000	33000	**7201C**	0.034
	32	10	20	0.60	0.30	7.38	3.77	25000	33000	**7201AC**	0.035
	32	10	20	0.60	0.30	6.60	3.35	21000	28000	**7201B**	0.036
	37	12	24	1.00	0.60	12.09	5.86	23000	30000	**7301C**	0.043
	37	12	24	1.00	0.60	11.56	5.49	23000	30000	**7301AC**	0.044
	37	12	24	1.00	0.60	10.50	4.95	19000	26000	**7301B**	0.045
15	32	9	18	0.30	0.15	6.26	3.51	23000	31000	**7002C**	0.035
	32	9	18	0.30	0.15	5.99	3.30	23000	31000	**7002AC**	0.035
	35	11	22	0.60	0.30	9.77	5.24	22000	29000	**7202C**	0.045
	35	11	22	0.60	0.30	9.34	4.92	22000	29000	**7202AC**	0.046
	35	11	22	0.60	0.30	8.35	4.35	18000	25000	**7202B**	0.047
	42	13	26	1.00	0.60	14.57	8.03	19000	26000	**7302C**	0.055
	42	13	26	1.00	0.60	13.94	7.54	19000	26000	**7302AC**	0.056
	42	13	26	1.00	0.60	12.50	6.65	17000	22000	**7302B**	0.057
17	35	10	20	0.30	0.15	7.72	4.29	21000	28000	**7003C**	0.045
	35	10	20	0.30	0.15	7.38	4.03	21000	28000	**7003AC**	0.046
	40	12	24	0.60	0.30	12.95	7.36	19000	26000	**7203C**	0.062
	40	12	24	0.60	0.30	12.39	6.91	19000	26000	**7203AC**	0.064
	40	12	24	0.60	0.30	11.00	6.10	17000	22000	**7203B**	0.066
	47	14	28	1.00	0.6	17.16	9.65	18000	24000	**7303C**	0.105
	47	14	28	1.00	0.60	16.41	9.05	18000	24000	**7303AC**	0.107
	47	14	28	1.00	0.60	14.80	8.00	15000	20000	**7303b**	0.109
20	42	12	24	0.60	0.30	10.47	6.25	19000	25000	**7004C**	0.079
	42	12	24	0.60	0.30	10.01	5.86	19000	25000	**7004AC**	0.080
	47	14	28	1.00	0.60	15.65	9.37	17000	23000	**7204C**	0.098
	47	14	28	1.00	0.60	14.97	8.79	17000	23000	**7204AC**	0.100
	47	14	28	1.00	0.60	13.30	7.70	15000	20000	**7204B**	0.102
	52	15	30	1.10	0.60	20.19	11.60	16000	21000	**7304C**	0.140
	52	15	30	1.10	0.60	19.31	10.88	16000	21000	**7304AC**	0.138
	52	15	30	1.10	0.60	17.30	9.65	13000	18000	**7304B**	0.140

Angular Contact Ball Bearing



Single Row

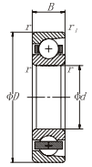


7000 C Type α = 15°
7000 A C Type α = 25°
7000 B Type α = 40°

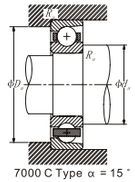
d 25 ~ 45mm

Main Dimension (mm)						Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.	Weight (Single row) (kg)
d	*D*	*B*	*2B*	*r (min)*	*r (max)*	C_r	C_{0r}	*Grease Lubrication*	*Oil Lubrication*		
25	47	12	24	0.60	0.30	11.55	7.64	16000	21000	**7005C**	0.091
	47	12	24	0.60	0.30	11.05	7.17	16000	21000	**7005AC**	0.093
	52	15	30	1.00	0.60	17.49	11.49	14000	19000	**7205C**	0.122
	52	15	30	1.00	0.60	16.72	10.78	14000	19000	**7205AC**	0.125
	52	15	30	1.00	0.60	14.80	9.40	12000	16000	**7205B**	0.129
	62	14	34	1.10	0.60	28.50	17.62	13000	17000	**7305C**	0.227
	62	14	34	1.10	0.60	27.25	16.54	13000	17000	**7305AC**	0.230
	62	14	34	1.10	0.60	24.40	14.60	11000	15000	**7305B**	0.234
30	55	13	26	1.00	0.60	15.00	10.54	13000	18000	**7006C**	0.133
	55	13	26	1.00	0.60	14.35	9.89	13000	18000	**7006AC**	0.135
	62	16	32	1.00	0.60	24.29	16.51	12000	16000	**7206C**	0.190
	62	16	32	1.00	0.60	23.23	15.49	12000	16000	**7206AC**	0.193
	62	16	32	1.00	0.60	20.50	13.50	11000	14000	**7206B**	0.197
	72	19	38	1.10	0.60	36.16	24.87	11000	15000	**7306C**	0.339
	72	19	38	1.10	0.60	34.58	23.34	11000	15000	**7306AC**	0.345
	72	19	38	1.10	0.60	31.00	20.50	9600	13000	**7306B**	0.352
35	62	14	28	1.00	0.60	18.89	14.05	12000	16000	**7007C**	0.160
	62	14	28	1.00	0.60	18.07	13.19	12000	16000	**7007AC**	0.180
	72	17	34	1.10	0.60	32.06	22.42	11000	14000	**7207C**	0.275
	72	17	34	1.10	0.60	30.66	21.04	11000	14000	**7207AC**	0.281
	72	17	34	1.10	0.60	27.10	18.40	9300	12000	**7207B**	0.287
	80	21	42	1.50	1.00	43.18	29.33	9800	13000	**7307C**	0.455
	80	21	42	1.50	1.00	41.29	27.52	9800	13000	**7307AC**	0.462
	80	21	42	1.50	1.00	36.50	24.20	8400	11000	**7307B**	0.469
40	68	15	30	1.00	0.60	20.29	16.28	10000	14000	**7008C**	0.219
	68	15	30	1.00	0.60	19.41	15.28	10000	14000	**7008AC**	0.222
	80	18	36	1.10	0.60	38.32	28.00	9600	13000	**7208C**	0.340
	80	18	36	1.10	0.60	36.65	26.27	9600	13000	**7208AC**	0.355
	80	18	36	1.10	0.60	32.00	23.00	8300	11000	**7208B**	0.375
	90	23	46	1.50	1.00	34.54	25.65	8600	12000	**7308C**	0.610
	90	23	46	1.50	1.00	33.04	24.07	8600	12000	**7308AC**	0.625
	90	23	46	1.50	1.00	45.00	30.50	7400	9900	**7308B**	0.636
45	75	16	32	1.00	0.60	24.07	19.74	9500	13000	**7009C**	0.270
	75	16	38	1.00	0.60	23.02	18.52	9500	13000	**7009AC**	0.282
	85	19	38	1.10	0.60	42.64	32.01	8700	12000	**7209C**	0.395
	85	19	38	1.10	0.60	40.78	30.04	8700	12000	**7209AC**	0.404
	85	19	38	1.10	0.60	36.00	26.20	7400	9900	**7209B**	0.410
	100	25	50	1.50	1.00	68.54	48.52	7800	10000	**7309C**	0.810
	100	25	50	1.50	1.00	65.55	45.52	7800	10000	**7309AC**	0.837
	100	25	50	1.50	1.00	58.50	40.00	6600	8900	**7309B**	0.854

Angular Contact Ball Bearing



Single Row

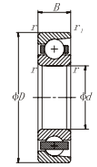


7000 C Type α = 15°
7000 A C Type α = 25°
7000 B Type α = 40°

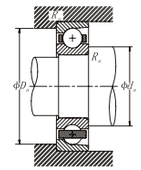
d 50 ~ 70mm

Main Dimension (mm)						Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.	Weight (Single row) (kg)
d	D	B	2B	r (min)	r (max)	C_r	C_{0r}	Grease Lubrication	Oil Lubrication		
50	80	16	32	1.00	0.60	25.58	22.42	8600	11000	**7010C**	0.300
	80	16	32	1.00	0.60	24.47	21.04	8600	11000	**7010AC**	0.306
	90	20	40	1.10	0.60	44.80	35.13	7900	10000	**7210C**	0.448
	90	20	40	1.10	0.60	42.84	32.97	7900	10000	**7210AC**	0.457
	90	20	40	1.10	0.60	37.50	58.60	6700	9000	**7210B**	0.466
	110	27	54	2.00	1.00	79.88	58.00	7100	9400	**7310C**	1.070
	110	27	54	2.00	1.00	76.39	54.42	7100	9400	**7310AC**	1.090
	110	27	54	2.00	1.00	68.00	48.00	6000	8100	**7310B**	1.110
55	90	18	36	1.10	0.60	33.46	29.33	7900	11000	**7011C**	0.210
	90	18	36	1.10	0.60	32.00	27.52	7900	11000	**7011AC**	0.214
	100	21	42	1.50	1.00	55.05	44.06	7100	9500	**7211C**	0.589
	100	21	42	1.50	1.00	52.65	41.34	7100	9500	**7211AC**	0.600
	100	21	42	1.50	1.00	46.50	36.00	6100	8200	**7211B**	0.612
	120	29	58	2.00	1.00	92.83	68.59	6400	8600	**7311C**	1.370
	120	29	58	2.00	1.00	88.78	64.36	6400	8600	**7311AC**	1.390
	120	29	58	2.00	1.00	79.00	56.50	5500	7300	**7311B**	1.420
60	95	18	36	1.10	0.60	34.54	31.34	7200	9600	**7012C**	0.467
	95	18	36	1.10	0.60	33.04	29.41	7200	9600	**7012AC**	0.478
	110	22	44	1.50	1.00	66.38	54.65	6600	8800	**7212C**	0.750
	110	22	44	1.50	1.00	63.49	51.28	6600	8800	**7212AC**	0.765
	110	22	44	1.50	1.00	56.00	44.50	5700	7600	**7212B**	0.780
	130	31	62	2.10	1.10	105.78	79.75	5900	7900	**7312C**	1700
	130	31	62	2.10	1.10	101.17	74.83	5900	7900	**7312AC**	1.740
	130	31	62	2.10	1.10	90.00	66.00	5100	6800	**7312B**	1.770
65	100	18	36	1.10	0.60	36.16	35.13	6700	9000	**7013C**	0.495
	100	18	36	1.10	0.60	34.58	32.97	6700	9000	**7013AC**	0.509
	120	23	46	1.50	1.00	76.10	64.69	6100	8100	**7213B**	0.981
	120	23	46	1.50	1.00	74.65	62.93	6100	8100	**7213AC**	0.962
	120	23	46	1.50	1.00	63.50	52.50	5200	7000	**7213B**	0.981
	140	33	66	2.10	1.10	119.82	91.46	5500	7300	**7313C**	2.090
	140	33	66	2.10	1.10	114.59	85.81	5500	7300	**7313AC**	2.110
	140	33	66	2.10	1.10	102.00	75.50	4700	6300	**7313B**	2.150
70	110	20	40	1.10	0.60	45.88	44.06	6200	8300	**7014C**	0.690
	110	20	40	1.10	0.60	43.87	41.34	6200	8300	**7014AC**	0.705
	125	24	48	1.50	1.00	82.58	70.83	5700	7600	**7214C**	1.070
	125	24	48	1.50	1.00	78.97	66.45	5700	7600	**7214AC**	1.090
	125	24	48	1.50	1.00	69.00	58.00	4900	6500	**7214B**	1.110
	150	35	70	2.10	1.10	134.93	104.29	5100	6800	**7314C**	2.510
	150	35	70	2.10	1.10	129.04	97.85	5100	6800	**7314AC**	2.560
	150	35	70	2.10	1.10	114.00	86.00	4400	5800	**7314B**	2.610

Angular Contact Ball Bearing



Single Row



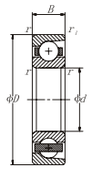
7000 C Type α = 15°
7000 A C Type α = 25°
7000 B Type α = 40°

d 75 ~ 95mm

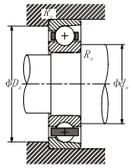
Main Dimension (mm)						Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.	Weight (Single row) (kg)
d	D	B	2B	r (min)	r (max)	C_r	C_{0r}	Grease Lubrication	Oil Lubrication		
75	115	20	40	1.10	0.60	46.96	46.29	5800	7800	**7015C**	0.730
	115	20	40	1.10	0.60	44.91	43.43	5800	7800	**7015AC**	0.745
	130	25	50	1.50	1.00	85.27	76.40	5300	7100	**7215C**	1.150
	130	25	50	1.50	1.00	81.56	71.69	5300	7100	**7215AC**	1.170
	130	25	50	1.50	1.00	71.50	62.00	4500	6000	**7215B**	1.190
	160	37	74	2.10	1.10	146.80	118.23	4800	6300	**731C**	3.020
	160	37	74	2.10	1.10	140.40	110.93	4800	6300	**7315AC**	3.070
	160	37	74	2.10	1.10	125.00	97.50	4100	5400	**7315B**	3.130
80	125	22	44	1.10	0.60	57.75	56.33	5500	7300	**7016C**	0.980
	125	22	44	1.10	0.60	55.23	52.85	5500	7300	**7016AC**	0.994
	140	26	52	2.00	1.00	96.07	84.77	5000	6600	**7216C**	1.360
	140	26	52	2.00	1.00	91.88	79.54	5000	6600	**7216AC**	1.390
	140	26	52	2.00	1.00	91.88	79.54	4300	5700	**7216B**	1.420
	170	39	78	2.10	1.10	158.67	132.73	4500	5900	**7316C**	3.590
	170	39	78	2.10	1.10	151.75	124.54	4500	5900	**7316AC**	3.650
	170	39	78	2.10	1.10	135.00	109.00	3800	5100	**7316B**	3.720
85	130	22	44	1.10	0.60	58.83	59.67	5100	6900	**7017C**	1.020
	130	22	44	1.1	0.60	56.26	55.99	5100	6900	**7017AC**	1.040
	150	28	56	2.00	1.00	107.40	98.71	4700	6200	**7217C**	1.760
	150	28	56	2.00	1.00	102.72	92.62	4700	6200	**7217AC**	1.780
	150	28	56	2.00	1.00	90.00	80.50	4000	5300	**7217B**	1.820
	180	41	82	3.00	1.10	171.63	148.34	4200	5600	**7317C**	4.260
	180	41	82	3.00	1.10	164.14	139.19	4200	5600	**7317AC**	4.340
	180	41	82	3.00	1.10	146.00	122.00	3600	4800	**7317B**	4.430
90	140	24	48	1.50	1.00	70.16	70.83	4900	6500	**7018C**	1.310
	140	24	48	1.50	1.00	67.10	66.45	4900	6500	**7018AC**	1.350
	160	30	60	2.00	1.00	127.37	114.88	4400	5900	**7218C**	2.140
	160	30	60	2.00	1.00	121.82	107.79	4400	5900	**7218AC**	2.180
	160	30	60	2.00	1.00	121.82	107.79	4400	5900	**7218B**	2.220
	190	43	86	3.00	1.10	184.58	163.96	4000	5300	**7318C**	4.970
	190	43	86	3.00	1.10	176.53	153.84	4000	5300	**7138AC**	5.060
	190	43	86	3.00	1.10	156.00	135.00	3400	4500	**7318B**	5.160
95	145	24	48	1.50	1.00	72.32	74.73	4600	6100	**7019C**	1.370
	145	24	48	1.50	1.00	69.17	70.12	4600	6100	**7019AC**	1.410
	170	32	64	2.00	1.10	143.56	131.61	4100	5500	**7219C**	2.620
	170	32	64	2.00	1.10	137.30	123.49	4100	5500	**7219AC**	2.670
	170	32	64	2.00	1.10	121.00	107.00	3500	4700	**7219AC**	2.720
	200	45	90	3.00	1.10	197.53	180.69	3700	5000	**7319C**	5.770
	200	45	90	3.00	1.10	188.92	169.54	3700	5000	**7319AC**	5.890
	200	45	90	3.00	1.10	167.00	149.00	3200	4200	**7319B**	6.000

03 | Angular Contact Ball Bearing

Angular Contact Ball Bearing



Single Row

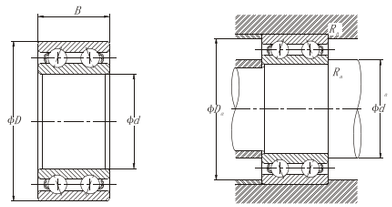


7000 C Type α = 15°
7000 A C Type α = 25°
7000 B Type α = 40°

d100mm

Main Dimension (mm)						Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.	Weight (Single row) (kg)
d	*D*	*B*	*2B*	*r (min)*	*r (max)*	C_r	C_{0r}	*Grease Lubrication*	*Oil Lubrication*		
100	150	24	48	1.50	1.00	73.94	78.63	4400	5800	**7020C**	1.400
	150	24	48	1.50	1.00	70.72	73.78	4400	5800	**7020AC**	1.470
	180	34	68	2.10	1.10	155.44	140.54	3900	5200	**7220C**	3.120
	180	34	68	2.10	1.10	148.66	131.86	3900	5200	**7220AC**	3.260
	180	34	68	2.10	1.10	130.00	114.00	3400	4500	**7220B**	3.400
	215	47	94	3.00	1.10	223.44	215.26	3500	4700	**7320C**	7.050
	215	47	94	3.00	1.10	213.69	201.98	3500	4700	**7320AC**	7.180
	215	47	94	3.00	1.10	190.00	178.00	3000	4000	**7320B**	7.320

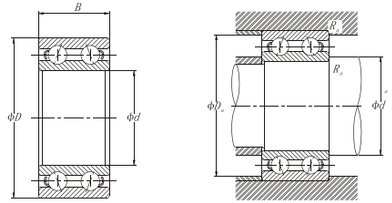
Double Row Angular Contact Ball Bearing



d 25 ~ 100mm

Main Dimension (mm)				Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.	Mounting dimensions (mm)			Weight (kg)
d	D	B	r (min)	C_r	C_{0r}	Grease Lubrication	Oil Lubrication		d_a Min	D_a Max	r_a Max	
25	52 62	20.6 25.4	1.0 1.1	19.30 29.4	18.4 26.8	7300 6700	9800 8900	**3205** **3305**	31.0 32.0	46.0 55.0	1.0 1.0	0.183 0.354
30	62 72	23.8 30.2	1.0 1.1	27.7 39.0	27.4 36.5	6300 5700	8400 7600	**3206** **3306**	36.0 37.0	56.0 65.0	1.0 1.0	0.303 0.558
35	72 80	27 34.9	1.1 1.5	37.5 49.5	38.0 47.5	5500 5000	7400 6600	**3207** **3307**	42.0 43.5	65.0 71.5	1.0 1.5	0.458 0.756
40	80 90	30.2 36.5	1.1 1.5	46.5 54.5	52.0 57.5	4900 4400	6600 5900	**3208** **3308**	47.0 48.5	73.0 81.5	1.0 1.5	0.627 1.030
45	85 100	30.2 39.7	1.1 1.5	40.5 67.5	45.0 72.5	4400 4000	5900 5300	**3209** **3309**	52.0 53.5	78.0 91.5	1.0 1.5	0.678 1.370
50	90 110	30.2 44.4	1.1 2.0	52.5 81.5	60.0 89.5	4000 3600	5300 4800	**3210** **3310**	57.0 60.0	83.0 100.0	1.0 2.0	0.698 1.980
55	100 120	33.3 49.2	1.5 2.0	66.0 96.5	76.5 108.0	3600 3300	4900 4400	**3211** **3311**	63.5 65.0	91.5 110.0	1.5 2.0	1.070 2.420
60	110 130	36.5 54	1.5 2.1	70.5 113.0	88.0 128.0	3400 3000	4500 4000	**3212** **3312**	68.5 72.0	101.5 118.0	1.5 2.0	1.340 3.070
65	120 140	38.1 58.7	1.5 2.1	78.0 131.0	99.0 150.0	3100 2800	4200 3700	**3213** **3313**	73.5 77.0	111.5 128.0	1.5 2.0	1.680 3.900
70	125 150	39.7 63.5	1.5 2.1	86.0 153.0	110.0 168.0	5900 2600	3900 3500	**3214** **3314**	78.5 82.0	116.5 138.0	1.5 2.0	1.840 5.200
75	130 160	41.3 68.3	1.5 2.1	94.0 172.0	122.0 191.0	2700 2400	3600 3200	**3215** **3315**	83.5 87.0	121.5 148.0	1.5 2.0	2.010 6.300
80	140	44.4	2.0	104.0	131.0	2500	3400	**3216**	90.0	130.0	2.0	2.710
85	150	49.2	2.0	121.0	155.0	2400	3200	**3217**	95.0	140.0	2.0	3.480
90	160	52.4	2.0	135.0	170.0	2200	3000	**3218**	100.0	150.0	2.0	4.240
95	170	55.6	2.1	144.0	184.0	2100	2800	**3219**	107.0	158.0	2.0	5.100
100	180	60.3	2.1	189.0	234.0	2000	2700	**3220**	112.0	168.0	2.0	5.880

Double Row Angular Contact Ball Bearing



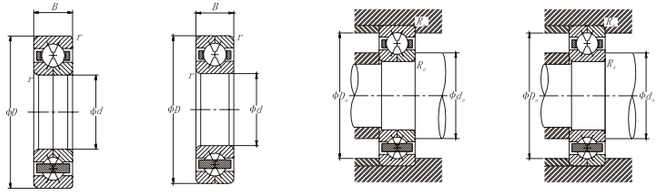
d 10~ 110mm

Boundary dimensions (mm)				Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.	Abutment and filter dimensions (mm)				Weight (kg)
d	D	B	rs min 1	C_r	C_{0r}	Grease Lubrication	Oil Lubrication		Ds min	Ds max	Dh max	R max	
10	30	14.3	0.6	6950	3800	16000	22000	**5200**	15	25	0.6	17.5	0.049
12	32	15.9	0.6	9150	5050	15000	20000	**5201**	17	27	0.6	19	0.057
15	35	15.9	0.6	10000	6050	12000	17000	**5202**	20	30	0.6	21	0.064
17	40	17.5	0.6	12800	7900	10000	15000	**5203**	22	35	0.6	24	0.096
20	47	20.6	1.0	19000	12100	9000	13000	**5204**	26	41	1	28	0.153
25	52	20.6	1.0	20600	14300	8000	11000	**5205**	31	46	1	31.5	0.175
30	62	23.8	1.0	28600	20400	7000	9500	**5206**	36	56	1	36.5	0.286
35	72	27	1.1	38000	27800	6000	8000	**5207**	42	65	1	42.5	0.436
40	80	30.2	1.1	42500	32500	5600	7500	**5208**	47	73	1.0	47.5	0.590
45	85	30.2	1.1	48000	37000	5000	6700	**5209**	52	78	1.0	50.5	0.640
50	90	30.2	1.1	51000	42000	4000	5300	**5210**	57	83	1.0	54.0	0.689
55	100	33.3	1.5	63000	53000	3600	4900	**5211**	63.5	91.5	1.5	60.5	0.986
60	110	36.5	1.5	71500	58500	3400	4500	**5212**	68.5	101.5	1.5	65.5	1.270
65	120	38.1	1.5	83500	72500	3100	4200	**5213**	73.5	111.5	1.5	71.0	1.570
70	125	39.7	1.5	90500	79500	2900	3900	**5214**	78.5	116.5	1.5	74.5	1.800
75	130	41.3	1.5	90000	80500	2700	3600	**5215**	83.5	121.5	1.5	78.0	1.900
80	140	44.4	2	106000	95500	2500	3400	**5216**	90	130	2.0	83.5	2.390
85	150	49.2	2	112000	106000	2400	3200	**5217**	95	140	2.0	91.5	3.060
90	160	52.4	2	140000	129000	2200	3000	**5218**	100	150	2.0	95.5	3.730
95	170	56	2.1	159000	148000	2800	2100	**5219**	107	158	2.0	111.0	4.860
100	180	60	2.1	178000	167000	2700	2000	**5220**	112	168	2.0	118.0	5.940
110	200	70	2.1	212000	212000	2800	2800	**5222**	122	188	2.0	132.0	8.800

03 | Angular Contact Ball Bearing

Four-point Contact Ball Bearing

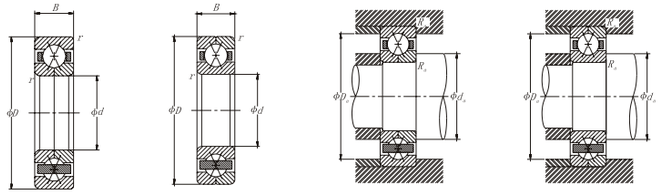
d 30 ~ 90mm



Main Dimension (mm)				Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.	Mounting dimensions (mm)			Weight (kg)
d	D	B	(r)	C_r	C_{0r}	Grease Lubrication	Oil Lubrication		da Min	Da Max	ra Max	
30	62	16	1.0	31.0	45.0	8500	12000	**QJ206**	36.0	56.0	1.0	0.240
	72	19	1.1	39.5	57.5	8000	11000	**QJ306**	37.0	65.0	1.0	0.420
35	72	17	1.1	41.0	61.5	7500	10000	**QJ207**	42.0	65.0	1.0	0.350
	80	21	1.5	49.5	73.0	7000	9300	**QJ307**	43.5	71.5	1.5	0.570
40	80	18	1.1	44.0	70.5	6900	9200	**QJ208**	47.0	73.0	1.0	0.450
	90	23	1.5	60.5	91.5	6200	8200	**QJ308**	48.5	81.5	1.5	0.780
45	85	19	1.0	49.5	81.0	6200	8200	**QJ209**	52.0	78.0	1.0	0.520
	100	25	1.5	79.0	121.0	5500	7400	**QJ309**	53.5	91.5	1.5	1.050
50	90	20	1.1	52.0	89.0	5600	7500	**QJ210**	57.0	83.0	1.0	0.603
	110	27	2.0	92.0	145.0	5000	6700	**QJ310**	60.0	100.0	2.0	1.380
55	100	21	1.5	54.0	112.0	5100	6800	**QJ211**	63.5	91.5	1.5	0.780
	120	29	2.0	106.0	170.0	4600	6100	**QJ311**	65.0	110.0	2.0	1.760
60	110	22	1.5	77.5	138.0	4700	6300	**QJ212**	68.5	101.5	1.5	0.978
	130	31	2.1	122.0	198.0	4200	5700	**QJ312**	72.0	118.0	2.0	2.180
65	120	23	1.5	84.5	153.0	4400	5800	**QJ213**	73.5	111.5	1.5	0.987
	140	33	2.1	138.0	228.0	3900	5200	**QJ313**	77.0	128.0	2.0	3.270
70	125	24	1.5	92.0	168.0	4000	5400	**QJ214**	78.5	116.5	1.5	1.360
	150	35	2.1	155.0	260.0	3600	4800	**QJ314**	82.0	138.0	2.0	3.900
75	130	25	1.5	96.0	183.0	3800	5000	**QJ215**	83.5	121.5	1.5	1.530
	160	37	2.1	169.0	294.0	3400	4500	**QJ315**	87.0	148.0	2.0	3.900
80	140	26	2.0	112.0	217.0	3500	4700	**QJ216**	90.0	130.0	2.0	2.300
	170	39	2.1	183.0	330.0	3200	4200	**QJ316**	92.0	158.0	2.0	4.640
85	150	28	2.0	126.0	252.0	3300	4400	**QJ217**	95.0	140.0	2.0	2300
	180	41	3.0	197.0	370.0	3000	4000	**QJ317**	99.0	166.0	2.5	5430
90	160	30	2.0	148.0	293.0	3100	4200	**QJ218**	100.0	150.0	2.0	2.760
	190	43	3.0	212.0	410.0	2800	3800	**QJ318**	104.0	176.0	2.5	6.310

Four-point Contact Ball Bearing

d 95 ~ 150mm



Main Dimension (mm)				Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.	Mounting dimensions (mm)			Weight (kg)
d	D	B	(r)	C_r	C_{0r}	Grease Lubrication	Oil Lubrication		d_a Min	D_a Max	r_a Max	
95	170	32	2.1	168.0	335.0	3000	3900	**QJ219**	107.0	158.0	2.0	3.350
	200	45	3.0	227.0	450.0	2700	3500	**QJ319**	109.0	186.0	2.5	7.410
100	180	34	2.1	181.0	355.0	2800	3700	**QJ220**	112.0	168.0	2.0	4.020
	215	47	3.0	273.0	585.0	2500	3400	**QJ320**	114.0	201.0	2.5	9.140
105	190	36	2.1	197.0	400.0	2700	3600	**QJ221**	117.0	178.0	2.0	4.750
	225	49	3.0	273.0	585.0	2400	3200	**QJ321**	119.0	211.0	2.05	10.4
110	200	38	2.1	213.0	450.0	2500	3400	**QJ222**	122.0	188.0	2.0	5.620
	240	50	3.0	305.0	680.0	2300	3100	**QJ322**	124.0	226.0	2.5	12.0
120	215	40	2.1	240.0	540.0	2300	3000	**QJ224**	132.0	203.0	2.0	6.750
	260	55	3.0	325.0	765.0	2100	2800	**QJ324**	134.0	246.0	2.5	15.90
130	230	40	3	249.0	585.0	2200	300	**QJ226**	144.0	216.0	2.5	7.700
	280	58	4	364.0	892.0	1900	2600	**QJ326**	148.0	262.0	3.0	19.0
140	250	42	3	287.0	713.0	2000	2800	**QJ228**	154.0	236.0	2.5	9.800
	300	62	4	400.0	1021.0	1700	2400	**QJ328**	158.0	282.0	3.0	24.0
150	270	45	3	328.0	851.0	1800	2600	**QJ230**	164.0	256.0	2.5	12.0
	320	65	4	419.0	1131.0	1600	2200	**QJ330**	168.0	302.0	3.0	29.0

Self Aligning Ball Bearing

Self Aligning ball bearings have spherical outer raceway. The centre of this raceway coincides the centre of the bearing itself. Due to this specific design the rolling elements rotate and align themselves in the event they are misaligned.

These are very useful in applications where there is displacement of the centers around the shaft and housing rotate and deflection are likely to occur.

The standard cage used are staggered type pressed steel cages an snap type pressed steel cages. Additionally Copper alloy machined cages are also available.

For details on boundary dimensions and specifications please refer to the tables overleaf.

Self aligning ball bearing

The outer ring raceway of self aligning roller bearing is a spherical surface, its center of curvature corresponds with the bearing center. Therefore, the inner race, outer race, ball and retainer can inclines at a certain degree, and can be rotate freely around the bearing center. Its automatic self aligning ability can correct the desaxe caused by improper processing and installation automatically. It is applicable where axle and case centering is difficult and axle is easy to be crooked.

Self aligning roller bearings is mostly used to bear radial load. While bearing radial load, it can also bear a small amount of axial load, but not suitable to bear net axial load. Thanks to the self aligning ability of this bearing, it is suited where the speed is low and self aligning is required. Where the loading capacity of the self aligning ball bearing is not enough, the self aligning roller bearing with self aligning ability shall be used.

Application scope of self aligning ball bearing: driving shafts of woodworking machinery and textile machinery.

Self aligning ball bearings bore is column inner bore or taper inner bore. The tapering of taper inner bore is 1:12 (suffix is K). DPI can provide self aligning ball bearings whose bore surfaces have cylindrical inner bores or taper inner bores.

DPI can provide seal self aligning ball bearings with lengthened inner races can facilities the installation and dismounting. Please consult the technical center of DPI if required,

1. Structural form

1. Conventional type (Fig. 1):

Self aligning ball bearing whose internal bore surface is cylindrical:

2. Taper bore type (Fig. 2):

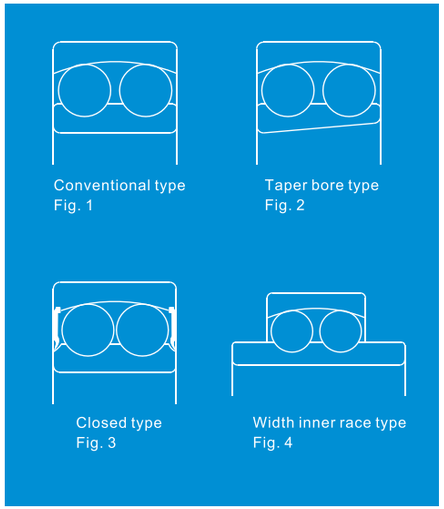
Self aligning ball bearing whose internal bore surface is tapered. The tapering is 1:12:

3. Closed type (Fig. 3)

Self aligning ball bearing with sealing rings on both sides:

4. Wide inner race type (Fig. 4)

Self aligning ball bearing whose inner race is lengthened.



2. Permitted self aligning angle

The internal structure design of self aligning ball bearings enable them the self aligning function, which can make the bearings correct the angle alignment errors between the inner and outer races by themselves. In normal load and working conditions, the misalignment angle values given in Table 1 are permitted when the inner race is running. Whether the given values can be reached completely also depends on the design and sealing types of the reference bearing structures. etc.

Bearing series	Permitted misalignment angle values
1200 series	2.5°
1300 series	3°
2200 series	2.5°
2300 series	3°

3. Retainer

The retainers of self aligning ball bearings often adopt either stamped steel or glass fiber reinforced nylon. If self aligning ball bearings with nylon retainers are required, please consult the technical center of DPI.

4. Radial Clearance

DPI standard type cyiindrical bore self aligning ball bearings adopt conventional set clearance. Taper self aligning ball bearings take C3 set clearance as standard type. Self aligning ball bearings with clearance greater that or less than standarddized set can be provided on request. The clearance of inner race lenghthened self aligning ball bearings is between C2 set and conventional set.

5. Scale accuracy & running load

DPI can also provide various self aligning ball bearings above the ordinary grade of the technical specification for relevant dimensional precision and running accuracy.

6. Dynamic equivalent load

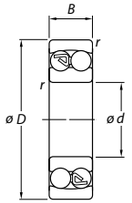
When Fa/Fr > e, P=0.65Fr + Y2Fa
The relevant calculating coefficient e Y1 and Y2 for each bearing can be found in the dimension table.

7. Static equivalent load

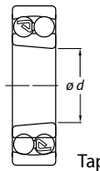
The coefficient value YO for each bearing has been given in the dimension table.

04 | Self Aligning Ball Bearing

Self Aligning Ball Bearing



Cylindrical Bore



Taper 1/12

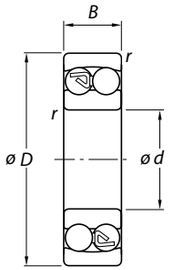
Tapered Bore

d 10 ~ 40mm

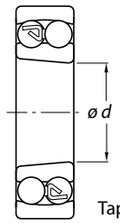
Main Dimension (mm)				Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.			Mounting dimensions (mm)			Weight (kg)	Constant e	Axial Load Factors		
d	D	B	r (min)	C_r	C_{0r}	Grease Lubrication	Oil Lubrication	Cylindrical bore	Taper Bore		d_a Min	D_a Max	r_a Max			Y_1	Y_2	Y_O
10	30	9	0.6	5.53	1.18	24000	30000	**1200**	**1200K**		14.0	26.0	0.6	0.035	0.33	1.9	3	2
	30	14	0.6	8.06	1.73	22000	28000	**2200**	**-**		14.0	26.0	0.6	0.050	0.54	1.15	1.8	1.3
	35	11	0.6	7.35	1.62	20000	24000	**1300**	**1300K**		14.0	31.0	0.6	0.060	0.35	2.8	1.8	1.9
	35	17	0.6	9.20	2.01	18000	22000	**2300**	**-**		14.0	31.0	0.6	0.090	0.71	1.4	0.89	0.93
12	32	10	0.6	6.24	1.43	22000	28000	**1201**	**1201K**		16.0	28.0	0.6	0.042	0.33	1.9	3	2
	32	14	0.6	8.52	1.90	20000	26000	**2201**	**-**		16.0	28.0	0.6	0.060	0.50	1.25	2	1.3
	37	12	1.0	9.36	2.16	18000	22000	**1301**	**1301K**		17.0	32.0	1.0	0.070	0.35	1.8	2.8	1.8
	37	17	1.0	11.70	2.70	17000	20000	**2301**	**-**		17.0	32.0	1.0	0.100	0.60	1.05	1.6	1.1
15	35	11	0.6	7.41	1.76	19000	24000	**1202**	**1202K**		19.0	31.0	0.6	0.051	0.33	1.9	3	2
	35	14	0.6	8.71	2.04	18000	22000	**2202**	**2202K**		19.0	31.0	0.6	0.060	0.43	1.5	2.3	1.6
	42	13	1.0	10.80	2.60	17000	20000	**1302**	**1302K**		20.0	37.0	1.0	0.100	0.31	2	3.1	2.2
	42	17	1.0	11.90	2.90	15000	18000	**2302**	**-**		20.0	37.0	1.0	0.110	0.52	1.2	1.9	1.3
17	40	12	0.6	8.84	2.20	18000	22000	**1203**	**1203K**		21.0	36.0	0.6	0.076	0.31	2	3.1	2.2
	40	16	0.6	10.60	2.55	17000	20000	**2203**	**2203K**		21.0	36.0	0.6	0.090	0.43	1.5	2.3	1.6
	47	14	1.0	12.70	3.40	14000	17000	**1303**	**1303K**		22.0	42.0	1.0	0.140	0.30	2.1	3.3	2.2
	47	19	1.0	14.60	3.55	13000	16000	**2303**	**-**		22.0	42.0	1.0	0.170	0.52	1.2	1.9	1.3
20	47	17	1.0	12.70	3.40	15000	18000	**1204**	**1204K**		25.0	42.0	1.0	0.120	0.30	2.1	3.3	2.2
	47	18	1.0	16.80	4.15	14000	17000	**2204**	**2204K**		25.0	12.0	1.0	0.150	0.40	1.6	2.4	1.6
	52	15	1.1	14.30	4.00	12000	15000	**1304**	**1304K**		26.5	42.0	1.0	0.170	0.28	2.2	3.5	2.5
	52	21	1.1	18.20	4.75	11000	14000	**2304**	**2304K**		26.5	45.5	1.0	0.220	0.52	1.2	1.9	1.3
25	52	15	1.0	14.30	4.00	13000	16000	**1205**	**1205K**		30.0	47.0	1.0	0.140	0.28	2.2	3.5	2.5
	52	18	1.0	16.80	4.40	11000	14000	**2205**	**2205K**		30.0	47.0	1.0	0.190	0.35	1.8	2.8	1.8
	62	17	1.1	19.00	5.40	9500	12000	**1305**	**1305K**		31.5	55.5	1.0	0.260	0.28	2.2	3.5	2.5
	62	24	1.1	24.20	6.55	9500	12000	**2305**	**2305K**		31.5	55.5	1.0	0.350	0.48	1.3	2	1.4
30	62	16	1.0	15.60	4.65	10000	13000	**1206**	**1206K**		35.0	57.0	1.0	0.230	0.25	2.5	3.9	2.5
	62	20	1.0	23.80	6.70	9500	12000	**2206**	**2206K**		35.0	57.0	1.0	0.260	0.33	1.9	3	2
	72	19	1.1	22.50	6.80	9000	11000	**1306**	**1306k**		36.5	65.5	1.0	0.400	0.25	2.5	3.9	2.5
	72	27	1.1	31.2	8.80	8500	10000	**2306**	**2306k**		36.5	65.5	1.0	0.500	0.44	1.4	2.2	1.4
35	72	17	1.1	19.00	6.00	9000	11000	**1207**	**1207k**		41.5	65.5	1.0	0.320	0.23	2.7	4.2	2.8
	72	23	1.1	30.70	8.80	8500	10000	**2207**	**2207k**		41.5	65.5	1.0	0.440	0.31	2	3.1	2.2
	80	21	1.5	26.50	8.50	7500	9000	**1307**	**1308k**		43.0	72.0	1.5	0.540	0.25	2.5	3.9	2.5
	80	31	1.5	39.70	11.20	7000	8500	**2307**	**2307k**		43.0	72.0	1.5	0.680	0.46	1.35	2.1	1.4
40	80	18	1.1	19.90	6.95	8500	10000	**1208**	**1208k**		46.5	73.5	1.0	0.410	0.22	2.9	4.5	2.8
	80	23	1.1	31.90	10.00	7500	9000	**2208**	**2208k**		46.5	73.5	1.0	0.530	0.28	2.2	3.5	2.5
	90	23	1.5	33.80	11.20	6700	8000	**1308**	**1308k**		48.0	82.0	1.5	0.710	0.23	2.7	4.2	2.8
	90	33	1.5	54.00	16.00	6300	7500	**2308**	**2308k**		48.0	82.0	1.5	0.930	0.40	1.6	2.4	1.6

Estd. 1983 DPI BEARINGS

Self Aligning Ball Bearing



Cylindrical Bore



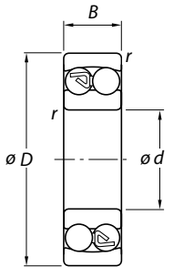
Taper 1/12

Tapered Bore

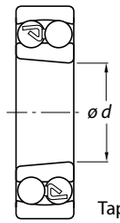
d 45 ~ 80mm

Main Dimension (mm)				Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.			Mounting dimensions (mm)			Weight (kg)	Constant e	Axial Load Factors		
d	D	B	r (min)	C_r	C_{0r}	Grease Lubrication	Oil Lubrication	Cylindrical bore	Taper Bore		d_a Min	D_a Max	r_a Max			Y_1	Y_2	Y_O
45	85	19	1.1	22.90	7.80	7500	9000	**1209**	**1209k**		51.5	78.5	1.0	0.490	0.21	3	4.6	3.2
	85	23	1.1	32.50	10.60	7000	8500	**2209**	**2209k**		51.5	78.5	1.0	0.550	0.26	2.4	3.7	2.5
	100	25	1.5	39.00	13.40	6300	7500	**1309**	**1309k**		53.0	92.0	1.5	0.960	0.23	2.7	4.2	2.8
	100	36	1.5	63.70	19.30	5600	6700	**2309**	**2309k**		53.0	92.0	1.5	1.250	0.33	1.9	3	2
50	90	20	1.1	26.50	9.15	7000	8500	**1210**	**1210k**		56.5	83.5	1.0	0.540	0.21	3	4.6	3.2
	90	23	1.1	33.80	11.20	6300	7500	**2210**	**2210k**		56.5	83.5	1.0	0.680	0.23	2.7	4.2	2.8
	110	27	2.0	43.60	14.00	5600	6700	**1310**	**1310k**		59.0	101.0	2.0	1.210	0.24	2.6	4.1	2.8
	110	40	2.0	63.70	20.00	5300	6300	**2310**	**2310k**		59.0	101.0	2.0	1.640	0.43	1.5	2.3	1.6
55	100	21	1.5	27.60	10.60	6300	7500	**1211**	**1211k**		63.0	92.0	1.5	0.720	0.19	3.3	5.1	3.6
	100	25	1.5	39.00	13.40	6000	7000	**2211**	**2211k**		63.0	92.0	1.5	0.810	0.23	2.7	4.2	2.8
	120	29	2.0	50.70	18.00	5000	6000	**1311**	**1311k**		64.0	111.0	2.0	1.580	0.23	2.7	4.2	2.8
	120	43	2.0	76.10	24.00	4800	5600	**2311**	**2311k**		64.0	111.0	2.0	2.100	0.40	1.6	2.4	1.6
60	110	22	1.5	31.20	12.20	5600	6700	**1212**	**1212k**		68.0	102.0	1.5	0.900	0.19	3.3	5.1	3.6
	110	28	1.5	48.80	17.00	5300	6300	**2212**	**2212k**		68.0	102.0	1.5	1.100	0.24	2.6	4.1	2.8
	130	31	2.1	58.50	22.00	4500	5300	**1312**	**1312k**		71.0	119.0	2.0	1.960	0.23	2.7	4.2	2.8
	130	46	2.1	87.1	28.50	4500	5300	**2312**	**2312k**		71.0	119.0	2.0	2.600	0.33	1.9	3	2
65	120	23	1.5	35.10	14.00	5300	6300	**1213**	**1213K**		73.0	112.0	1.5	0.920	0.18	3.5	5.4	3.6
	120	31	1.5	57.20	20.00	5000	6000	**2213**	**2213K**		73.0	112.0	1.5	1500	0.24	2.6	4.1	2.8
	140	33	2.1	65.00	25.50	4300	5000	**1313**	**1313K**		76.0	129.0	2.0	2.390	0.22	2.9	4.5	2.8
	140	48	2.1	95.60	32.50	4000	4800	**2313**	**2313**		76.0	129.0	2.0	3200	0.37	1.7	2.6	1.8
70	125	24	1.5	34.50	13.70	5000	6000	**1214**	**1214K**		78.0	117.0	1.5	1.290	0.18	3.5	5.4	3.6
	125	31	1.5	44.20	17.00	4800	5600	**2214**	**2214K**		78.0	117.0	1.5	1.620	0.27	2.3	3.6	2.5
	150	35	2.1	74.10	27.50	4000	4800	**1314**	**1314K**		81.0	139.0	2.0	3.000	0.22	2.9	4.5	2.8
	150	51	2.1	111.0	37.50	3800	4500	**2314**	**2314K**		81.0	139.0	2.0	3.900	0.37	1.7	2.6	1.8
75	130	25	1.5	39.00	15.60	4800	5600	**1215**	**1215K**		83.0	122.0	1.5	1.350	0.17	3.7	5.7	4
	130	31	1.5	44.20	18.00	4500	5300	**2215**	**2215K**		83.0	122.0	1.5	1.720	025	2.5	3.9	2.5
	160	37	2.1	79.30	30.00	3800	4500	**1315**	**1315K**		86.0	149.0	2.0	3.600	0.22	2.9	4.5	2.8
	160	55	2.1	124.00	43.00	3400	4000	**2315**	**2315K**		86.0	149.0	2.0	4.700	0.37	1.7	2.6	1.8
80	140	23	1.5	39.70	17.00	4500	5300	**1216**	**1216K**		89.0	131.0	2.0	1.650	0.16	3.9	6.1	4
	140	33	2.0	65.00	25.50	4000	4800	**2216**	**2216K**		89.0	131.0	2.0	2.190	0.22	2.9	4.5	2.8
	170	39	2.1	88.40	33.50	3600	4300	**1316**	**1316K**		91.0	159.0	2.0	4.200	0.22	2.9	4.5	2.8
	170	58	2.1	135.00	49.00	3200	3800	**2316**	**2316K**		91.0	159.0	2.0	5.700	0.37	1.7	2.6	1.8

Self Aligning Ball Bearing



Cylindrical Bore



Taper 1/12

Tapered Bore

d 85 ~ 110mm

Main Dimension (mm)				Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.			Mounting dimensions (mm)			Weight (kg)	Constant e	Axial Load Factors		
d	*D*	*B*	*r (min)*	C_r	C_{0r}	*Grease Lubrication*	*Oil Lubrication*	*Cylindrical bore*	*Taper Bore*		d_a *Min*	D_a *Max*	r_a *Max*			Y_1	Y_2	Y_O
85	150	28	2.0	48.80	20.80	4000	4800	**1217**	**1217K**		94.0	141.0	2.0	2.100	0.17	3.7	5.7	4
	150	36	2.0	58.50	23.60	3800	4500	**2217**	**2217K**		94.0	141.0	2.0	2.530	0.25	2.5	3.9	2.5
	180	41	3.0	97.50	38.00	3400	4000	**1317**	**1317K**		98.0	167.0	2.5	5.000	0.22	2.9	4.5	2.8
	180	60	3.0	140.00	51.00	3000	3600	**2317**	**2317K**		98.0	167.0	2.5	6.700	0.37	1.7	2.6	1.8
90	160	30	2.0	57.20	23.60	3800	4500	**1218**	**1218K**		99.0	151.0	2.0	2.500	0.17	3.7	5.7	4
	160	40	2.0	70.20	28.50	3600	4300	**2218**	**2218K**		99.0	151.0	2.0	3.220	0.27	2.3	3.6	2.5
	190	43	3.0	117.00	44.00	3200	3800	**1318**	**1318K**		103.0	177.0	2.5	6.000	0.22	2.9	4.5	2.8
	190	64	3.0	153.00	57.00	2800	3400	**2318**	**2318K**		103.0	177.0	2.5	7.900	0.37	1.7	2.6	1.8
95	170	32	2.1	63.70	27.00	3600	4300	**1219**	**1219K**		106.0	159.0	2.0	3.000	0.17	3.7	5.7	4
	170	43	2.1	83.20	34.50	3400	4000	**2219**	**2219K**		106.0	159.0	2.0	4.200	0.27	2.3	3.6	2.5
	200	45	3.0	133.00	51.00	3000	3600	**1319**	**1319K**		108.0	187.0	2.5	7.000	0.23	2.7	4.2	2.8
	200	67	3.0	165.00	64.00	2600	3200	**2319**	**2319K**		108.0	187.0	2.5	9.200	0.37	1.7	2.6	1.8
100	180	34	2.1	68.90	30.00	3400	4000	**1220**	**1220K**		111.0	169.0	2.0	3.700	0.17	3.7	5.7	4
	180	46	2.1	97.50	40.50	3200	3800	**2220**	**2220K**		111.0	202.0	2.5	5000	0.27	2.3	3.6	2.5
	215	47	3.0	143.00	57.00	2800	3400	**1320**	**1320K**		113.0	202.0	2.5	8.640	0.23	2.7	4.2	2.8
	215	73	3.0	190.00	80.00	2400	3000	**2320**	**2320K**		113.0	202.0	2.5	12.40	0.37	1.7	2.6	1.8
105	190	36	2.1	74.10	32.50	3200	3800	**1221**	**1221K**		116.0	179.0	2.0	4.520	0.17	3.7	5.7	4
	190	50	2.1	108.00	45.00	3000	3600	**2211**	**2211K**		116.0	179.0	2.0	5.640	0.28	2.2	3.5	2.5
	225	49	3.0	154.00	64.50	2600	3200	**1311**	**1311K**		118.0	212.0	2.5	10.00	0.23	2.7	4.2	2.8
	225	77	3.0	200.00	87.00	2400	3000	**2311**	**2311K**		118.0	212.0	2.5	14.40	0.37	1.7	2.6	1.8
110	200	38	2.1	88.40	39.00	3000	3600	**1222**	**1222K**		121.0	189.0	2.0	5.330	0.17	3.7	5.7	4
	200	53	2.1	124.00	52.00	2800	3400	**2222**	**2222K**		121.0	189.0	2.0	6.640	0.28	2.2	3.5	2.5
	240	50	3.0	163.00	72.00	2400	3000	**1322**	**1322K**		123.0	227.0	2.5	12.00	0.22	2.9	4.5	2.8
	240	80	3.0	216.00	95.00	2200	2800	**2322**	**2322K**		123.0	227.0	2.5	17.40	0.37	1.7	2.6	1.8

Estd. 1983

DPI®

BEARINGS

Cylindrical Roller Bearings

These bearings require feature high radial load as rollers and raceway are in linear contact. These are ideal for applications where there is heavy impact or radial loading. Due their construction they can be very accurately machined and hence are also used in high speed applications. An additional feature of these bearings is that they have a seperable inner and outer ring due to which mounting and dismounting is very easy.

The following types of Cylindrical roller bearings are available:

1. Single Row Cylindrical Roller Bearings:

Within this type they are further subdivided as follows:
a) NU & N Type: These give good performance when they are used as free side bearings as they adjust to the shafts axial movement to a certain extent.
b)NJ & NF Type: These carry axial load in one direction
c) NUP & NH Type: These can carry a certain degree of axial load in both directions.

2. Four point contact ball bearings

These have a contact angle of 35 degrees. The inner ring is divided into 2 pieces. These are very specialized bearings.

The standard cages used are pressed steel cages. Additionally Copper alloy machined cages are also available.

For details on boundary dimensions and specifications please refer to the tables overleaf.

Cylindrical roller bearing

The rollers of cylindrical roller bearings are often guided by two ribs of a certain ring. The retainer, roller and guide ring make up an assembly. It can be seperated from another ring. They are separable bearings. They are easy to mount and dismount. Especially when tight fit is required for the inner/outer race and the axle/ shell, their advantages are more obvious.

This type of bearings is often used to bear radial load. Only single row bearings with ribs on both inner and outer races can bear low constant axial load or high interval axial load.

Compared with deep groove ball bearings of same physical dimensions, this type of bearings radial loading capacity is larger. The requirements for the working accuracy of the axles and shell bores for this type of bearings is higher.

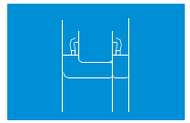
1. Primary structure type

Outer race without rib, inner race with tworibs N type

Outer race without rib, inner race with single rib NU type

Outer race without rib, inner race with two ribs NU type

Outer race with two ribs, inner race with single rib and a plate NUp type



Outer race with single rib, inner race with two ribs NF type

The retainers of bearing of the above structures often include: Pressed structure, nylon fabric, etc. Some models can be full of rollers without retainers.

2. Permitted inclination angle

Generally the axle of the cylindrical roller bearings is not permitted to incline to the outer bore. But, when the load is light, the axial directions of the inner and outer races of the single row cylindrical roller bearings are permitted to incline 2′ mutually. If the load is heavier, the permissible error is also larger, but is not permitted to exceed 4′.

3. Tolerance and clearance

As required, products of different grades of tolerance can be provided. See the above section tolerance for the tolerance values.

4. Axial load capacity

For cylindrical roller bearings with inner and outer races, their axial load is related to radial load the bear and the lubricating methods. Maximum permitted axial load.

$F_{ap} = KC_{0r}\left(\frac{n_g - n}{n_g - 2n}\right)$ Oil Lubrication

$F_{ap} = KC_{0r}\left(\frac{n_g - 2.5n}{n_g - 10n}\right)$ Grease Lubrication

$F_{ap} < 0.4F_r$

In the equations:
Fap: Maximum permitted axial load N
K: Coefficient relating to the bearing dimensions series
For 2,3 series K=0.2
22,33 series k=0.16
COr: Static radial load rating of bearings N
Ng:The limit speed when the bearing bears radial load, when Fr > 0.1Cr, the limit speeds listed in the dimension table shall be multiplied by the decreasing coefficient r/min.
N: Bearing working speed r/min

The axial load determined by the above formula acan make Grade 0 tolerance bearing (except improved and reinforced bearings) work normally in the following conditions.

Bearing temperature rise is 55˚C for oil lubrication and 40˚C for grease lubrication. The bearing maximum temperature is 90˚C (the used lubricating oil viscosity is V50=33mm2/s and the drop point of grease is 170˚C).

For interval axial load, the permitted axial load can be improved 1 time and for transient one, it can be improved 2 times. According to the working conditions, single row cylindrical roller bearings with lareger axial load capacity can be provided.

5. Dynamic equivalent radial load

$P_r = F_r$

For cylindrical roller bearings bearing axial load

2, 3 series		22,23 series	
$P_r = F_r + 0.3F_a$	$(0 \leqslant F_a / F_r \leqslant 0.12)$	$P_r = F_r + 0.2F_a$	$(0 \leqslant F_a / F_r \leqslant 0.18)$
$P_r = 0.94F_r + 0.8F_a$	$(0.12 \leqslant F_a / F_r \leqslant 0.3)$	$P_r = 0.94F_r + 53F_a$	$(0.18 \leqslant F_a / F_r \leqslant 0.3)$

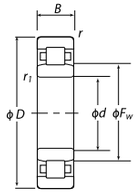
6. Static equivalent radial load

$P_{0r} = F_r$

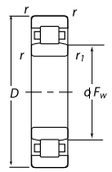
05 | Cylindrical Roller Bearing

Single Row Cylindrical Roller Bearings

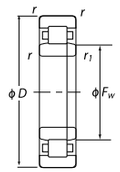
d 15 ~ 30mm



NU



NJ



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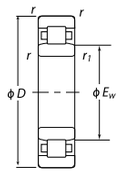
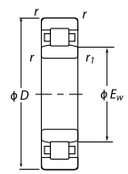


N



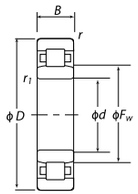
NF

Main Dimension (mm)							Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.			Bearing No.			Mounting dimensions (mm)										Weight (kg)
d	D	B	F_w	E_w	(r)	(r_1)	C_r	C_{0r}	Grease Lubrication	Oil Lubrication	NU Type	NJ Type		NUP Type	N Type	NF Type	D_s Min	D_1 Min	D_2 Max	D_3 Min	D_4 Min	d_h Max	d_1 Max	d_1 Min	R Max	R_1 Max	
15	35	11	19.3	29.3	0.6	0.3	7.5	3.5	17000	20000	**NU202**	**NJ202**		-	N202	NF202	19	20	24	27	21	30	31	30	0.6	0.3	0.005
	35	11	19.3	30.3	0.6	0.3	11.5	9.5	15000	19000	**NU202E**	**NJ202E**		-	N202E	-	19	-	24	27	21	30	-	-	0.6	0.3	0.005
17	40	12	22.9	33.9	0.6	0.3	8.7	4.7	15000	19000	**NU203**	**NJ203**		NU203	N203	NF203	21	20	25	28	24	35	36	35	0.6	0.3	0.009
	40	12	22.1	35.1	0.6	0.3	17.2	14.3	15000	18000	**NU203E**	**NJ203E**		NUP203E	N203E	-	21	-	25	28	24	35	-	-	0.6	0.3	0.009
	40	16	22.1	-	0.6	0.6	19.8	16.3	14000	17000	**NU2203E**	**NJ2203E**		NUP2203E	-	-	21	-	25	28	24	32	-	-	0.6	0.3	0.011
	47	14	24.0	40.2	1.1	0.6	19.2	15.3	14000	17000	**NU303E**	**NJ303E**		NUP303E	-	-	24	-	26	29	32	42	-	-	1	0.6	0.135
20	47	14	27.0	40.0	1.0	0.6	16.6	13.9	17000	20000	**NU204**	**NJ204**		NUP204	N204	NF204	24	25	26	29	32	42	43	42	1	0.6	0.111
	47	14	26.5	-	1.0	0.6	25.7	22.6	15000	18000	**NU204E**	**NJ204E**		NUP204E	-	-	24	-	26	29	32	42	-	-	1	0.6	0.122
	47	18	27.0	40.0	1.0	0.6	22.2	20.3	15000	18000	**NU2204**	**NJ2204**		NUP2204	N2204	-	24	25	26	29	32	42	43	42	1	0.6	0.143
	47	18	26.5	-	1.0	0.6	30.5	28.3	14000	16000	**NU2204E**	**NJ2204E**		NUP2204E	-	-	24	-	26	29	32	42	-	-	1	0.6	0.158
	52	15	28.5	44.5	1.1	0.6	23.1	19.2	14000	17000	**NU304**	**NJ304**		NUP304	N304	NF304	24	26.5	27	30	33	45.5	48	47	1	0.6	0.153
	52	15	27.5	-	1.1	0.6	31.5	26.9	13000	15000	**NU304E**	**NJ304E**		NUP304E	-	-	24	-	27	30	33	45.5	-	-	1	0.6	0.176
	52	21	28.5	44.5	1.1	0.6	33.0	30.0	13000	15000	**NU2304**	**NJ2304**		NUP2304	N2304	-	24	26.5	27	30	33	45.5	48	47	1	0.6	0.250
	52	21	27.5	-	1.1	0.6	42.0	39.0	12000	14000	**NU2304E**	**NJ2304E**		NUP2304E	-	-	24	-	27	30	33	45.5	-	-	1	0.6	0.240
25	47	12	30.5	41.5	0.6	0.3	15.1	14.1	16000	19000	**NU1005**	**NJ1005**		NUP1005	N1005	-	27	29	30	32	33	43	45	42.5	0.6	0.3	0.092
	52	15	32.0	45.0	1.0	0.6	18.8	17.0	14000	16000	**NU205**	**NJ205**		NUP205	N205	NF205	29	30	31	34	37	74	48	47	1	0.6	0.137
	52	15	31.5	-	1.0	0.6	29.3	27.7	13000	15000	**NU205E**	**NJ205E**		NUP205E	-	-	29	-	31	34	37	47	-	-	1	0.6	0.151
	52	18	32.0	45.0	1.0	0.6	25.1	24.7	13000	15000	**NU2205**	**NJ2205**		NUP2205	N2205	-	29	30	31	34	37	47	48	47	1	0.6	0.166
	52	18	31.5	-	1.0	0.6	35.0	34.5	11000	13000	**NU2205E**	**NJ2205E**		NUP2205E	-	-	29	-	31	34	37	47	-	-	1	0.6	0.0186
	62	17	35.0	53.0	1.1	1.1	31.5	27.7	12000	14000	**NU305**	**NJ305**		NUP305	N305	NF305	31.5	31.5	33	37	40	55.5	55.5	55.5	1	1	0.241
	62	17	34.0	-	1.1	1.1	41.5	37.5	11000	13000	**NU2305E**	**NJ2305E**		NUP305E	-	-	31.5	-	33	37	40	55.5	-	-	1	1	0.275
	62	17	35.0	53.0	1.1	1.1	46.0	45.0	11000	12000	**NU2305**	**NJ2305**		NUP2305	N2305	-	31.5	31.5	33	37	40	55.5	55.5	55.5	1	1	0.343
	62	24	34.0	-	1.1	1.1	57.0	56.0	9700	11000	**NU2305E**	**NJ2305E**		NUP2305E	-	-	31.5	-	33	37	40	55.5	-	-	1	1	0.386
	80	21	38.8	62.8	1.5	1.5	46.5	40.0	8500	10000	**NU405**	**NJ405**		NUP405	N405	NF405	33	33	38	41	46	72	72	64	1.5	1.5	0.550
30	55	13	36.5	48.5	1.0	0.6	19.7	19.6	14000	16000	**NU1006**	**NJ1006**		**NUP1006**	**N1006**	**-**	33	35	35	38	39.5	50	52	50	1	0.6	0.130
	62	16	38.5	53.5	1.0	0.6	24.9	23.3	12000	14000	**NU26**	**NJ206**		**NUP206**	**N206**	**NF206**	34	35	37	40	44	57	58	56	1	0.6	0.207
	62	16	37.5	-	1.0	0.6	39.0	37.5	11000	13000	**NU206E**	**NJ206E**		**NUP206E**	**-**	**-**	34	-	37	40	44	57	-	-	1	0.6	0.226
	62	20	38.5	53.5	1.0	0.6	35.0	36.0	11000	13000	**NU2206**	**NJ2206**		**NUP2206**	**N2206**	**-**	34	35	37	40	44	57	58	56	1	0.6	0.261
	62	20	37.5	-	1.0	0.6	49.0	50.0	9700	11000	**NU2206E**	**NJ2206E**		**NUP206E**	**-**	**-**	34	-	37	40	44	57	-	-	1	0.6	0.297
	72	19	42.0	62.0	1.1	1.1	38.5	35.0	10000	12000	**NU306**	**NJ306**		**NUP306**	**N306**	**NF306**	36.5	36.5	40	44	48	65.5	66	64	1	1	0.358
	72	19	40.5	-	1.1	1.1	53.0	50.0	9300	11000	**NU306E**	**NJ306E**		**NUP306E**	**-**	**-**	36.5	-	40	44	48	65.5	-	-	1	1	0.398
	72	27	42.0	62.0	1.1	1.1	51.5	51.0	9000	11000	**NU2306**	**NJ2306**		**NUP2306**	**N2306**	**-**	36.5	36.5	40	44	48	65.5	66	64	1	1	0.513
	72	27	40.5	-	1.1	1.1	74.5	77.5	8300	9700	**NU2306E**	**NJ2306E**		**NUP26306E**	**-**	**-**	36.5	-	40	44	48	65.5	-	-	1	1	0.580
	90	23	45.0	73.0	1.5	1.5	62.5	55.0	7300	8500	**NU406**	**NJ406**		**NUP406**	**N406**	**NF406**	38	38	44	47	52	82	82	74	1.5	1.5	0.751

05 | Cylindrical Roller Bearing

Single Row Cylindrical Roller Bearings

d 35 ~ 50mm



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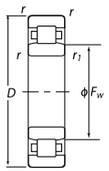

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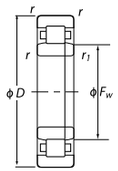

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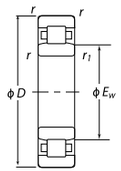

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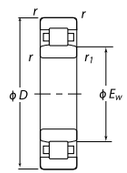
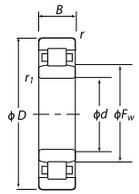


NF

Main Dimension (mm)							Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.			Mounting dimensions (mm)										Weight (kg)
d	D	B	F_w	E_w	(r)	(r_1)	C_r	C_{0r}	Grease Lubrication	Oil Lubrication	NU Type	NJ Type	NUP Type	N Type	NF Type	D_s Min	D_1 Min	D_2 Max	D_3 Min	D_4 Min	d_h Max	d_1 Max	d_1 Min	R Max	R_1 Max	
35	62	14	42.0	55.0	1.0	0.6	22.6	23.02	12000	15000	**NU1007**	**NJ1007**	**NUP1007**	**N1007**	**-**	38	40	41	44	45	57	59	56	1	0.6	0.179
	72	17	43.8	61.8	1.1	0.6	35.5	34.0	11000	12000	**NU207**	**NJ207**	**NUP207**	**N207**	**NF207**	39	41.5	43	46	50	65.5	68	64	1	0.6	0.295
	72	17	44.0	-	1.1	0.6	50.5	50.0	9500	11000	**NU207E**	**NJ207E**	**NUP207E**	**-**	**-**	39	-	43	46	50	65.5	-	-	1	0.6	0.327
	72	23	43.8	61.8	1.1	0.6	52.0	55.5	9500	11000	**NU2207**	**NJ2207**	**NUP2207**	**N2207**	**-**	39	41.5	43	46	50	65.5	68	64	1	0.6	0.404
	72	23	44.0	-	1.1	0.6	61.5	65.5	8500	10000	**NU2207E**	**NJ2207E**	**NUP2207E**	**-**	**-**	39	-	43	46	50	65.5	-	-	1	0.6	0.455
	80	21	46.2	68.2	1.5	1.1	49.5	47.0	9000	11000	**NU307**	**NJ307**	**NUP307**	**N307**	**NF307**	41.5	43	45	48	53	72	74	71	1.5	1	0.461
	80	21	46.2	-	1.5	1.1	71.0	71.0	8100	9600	**NU307E**	**NJ307E**	**NUP307E**	**-**	**-**	41.5	-	45	48	53	72	-	-	1.5	1	0.545
	80	31	46.2	68.2	1.5	1.1	64.5	65.5	7900	8300	**NU2307**	**NJ2307**	**NUP2307**	**N2307**	**-**	41.5	43	45	48	53	72	74	71	1.5	1	0.712
	80	31	46.2	-	1.5	1.1	99.0	19.0	7200	8500	**NU2307E**	**NJ2307E**	**NUP2307E**	**-**	**-**	41.5	-	45	48	53	72	-	-	1.5	1	0.780
	100	25	53.0	83.0	1.5	1.5	75.5	69.0	6400	7500	**NU407**	**NJ407**	**NUP407**	**N407**	**NF407**	43	43	52	55	61	92	92	84	1.5	1.5	0.990
40	68	15	74.0	61.0	1.0	0.6	27.3	29.0	11000	13000	**NU1008**	**NJ1008**	**NUP1008**	**N1008**	**-**	44	45	46	49	50.5	63	64	62	1	0.6	0.221
	80	18	50.0	70.0	1.1	1.1	43.5	42.0	9400	11000	**NU208**	**NJ208**	**NUP208**	**N208**	**NF208**	46.5	46.5	49	52	56	73.5	74	72	1	1	0.378
	80	18	49.5	-	1.1	1.1	55.5	55.5	8500	10000	**NU208E**	**NJ208E**	**NUP208E**	**-**	**-**	46.5	-	49	52	56	73.5	-	-	1	1	0.426
	80	23	50.0	70.0	1.1	1.1	58.0	62.0	8500	10000	**NU2208**	**NJ2208**	**NUP2208**	**N2208**	**-**	46.5	46.5	49	52	56	73.5	74	72	1	1	0.49
	80	23	49.5	-	1.1	1.1	72.5	77.5	7600	8900	**NU2208E**	**NJ2208E**	**NUP2208E**	**-**	**-**	46.5	-	49	52	56	73.5	-	-	1	1	0.552
	90	23	53.5	77.5	1.5	1.5	58.5	57.0	8000	9400	**NU308**	**NJ308**	**NUP308**	**N308**	**NF308**	48	48	51	55	60	82	82	80	1.5	1.5	0.658
	90	23	52.0	-	1.5	1.5	83.0	81.5	7200	8500	**NU308E**	**NJ308E**	**NUP308E**	**-**	**-**	48	-	51	55	60	82	-	-	1.5	1.5	0.754
	90	33	53.5	-	1.5	1.5	82.5	88.0	7000	8200	**NU2308**	**NJ2308**	**NUP2308**	**N2308**	**-**	48	48	51	55	60	82	82	80	1.5	1.5	0.951
	90	33	52.0	-	1.5	1.5	114.0	122.0	6400	7500	**NU2308E**	**NJ2308E**	**NUP2308E**	**-**	**-**	48	-	51	55	60	82	-	-	1.5	1.5	1.06
	110	27	58.0	92.0	2.0	2.0	95.5	89.0	5700	6700	**NU408**	**NJ408**	**NUP408**	**N408**	**NF408**	49	49	57	60	67	101	101	93	2	2	1.29
45	75	16	52.5	67.5	1.0	1.0	31.0	34.0.0	9900	12000	**NU1009**	**NJ1009**	**NUP1009**	**N1009**	**-**	49	50	52	54	56	70	71	69	1	0.6	0.282
	85	19	55.0	75.0	1.1	1.1	46.0	47.0	8400	9900	**NU209**	**NJ209**	**NUP209**	**N209**	**NF209**	51.5	51.5	54	57	61	78.5	79	77	1	1	0.432
	85	19	54.5	-	1.1	1.1	63.0	66.5	7600	9000	**NU209E**	**NJ209E**	**NUP209E**	**-**	**-**	51.5	-	54	57	61	78.5	-	-	1	1	0.496
	85	23	55.0	75.0	1.1	1.1	61.5	68.0	7600	9000	**NU2209**	**NJ2209**	**NUP2209**	**N2209**	**-**	51.5	51.5	54	57	61	78.5	79	77	1	1	0.531
	85	23	54.5	-	1.1	1.1	76.0	84.5	6800	8000	**NU2209E**	**NJ2209E**	**NUP2209E**	**-**	**-**	51.5	-	54	57	61	78.5	-	-	1	1	0.601
	100	25	58.5	86.5	1.5	1.5	6979.0	77.5	7200	8400	**NU309**	**NJ309**	**NUP309**	**N309**	**NF309**	53	53	57	60	66	92	92	89	1.5	1.5	0.877
	100	25	58.5	-	1.5	1.5	97.5	98.5	6500	7600	**NU309E**	**NJ309E**	**NUP309E**	**-**	**-**	53	-	57	60	66	92	-	-	1.5	1.5	0.995
	100	36	58.8	86.5	1.5	1.5	106.0	113.0	6300	7400	**NU2309**	**NJ2309**	**NUP2309**	**N2309**	**-**	53	53	57	60	66	62	62	89	1.5	1.5	1.27
	100	36	58.5	-	1.5	1.5	137.0	153.0	5700	6800	**NU2309E**	**NJ2309E**	**NUP2309E**	**-**	**-**	53	-	57	60	66	92	-	-	1.5	1.5	1.41
	120	29	64.5	100.5	2.0	2.0	115.0	112.0	5100	6000	**NU409**	**NJ409**	**NUP409**	**N409**	**NF409**	54	54	63	66	74	111	111	102	2	2	1.62
50	80	16	57.5	72.5	1.0	1.0	32.0	36.0	8900	11000	**NU1010**	**NJ1010**	**NUP1010**	**N1010**	**-**	54	55	57	59	61	75	76	74	1	0.6	0.295
	90	20	60.34	80.4	1.1	1.1	50.5	54.5	7600	9000	**NU210**	**NJ210**	**NUP210**	**N210**	**NF210**	56.5	56.5	58	62	67	83.5	84	83	1	1	0.47
	90	20	59.5	-	1.1	1.1	66.0	72.0	6900	8100	**NU210E**	**NJ210E**	**NUP210E**	**-**	**-**	56.5	-	58	62	67	83.5	-	-	1	1	0.541
	90	23	60.4	80.4	1.1	1.1	67.5	78.5	6900	8100	**NU2210**	**NJ2210**	**NUP2210**	**N2210**	**-**	56.5	56.5	58	62	67	83.5	84	83	1	1	0.571
	90	23	59.5	-	1.1	1.1	67.5	78.5	6200	7300	**NU2210E**	**NJ2210E**	**NUP2201E**	**-**	**-**	56.5	-	58	62	67	83.5	-	-	1	1	0.652
	110	27	65.0	2.0	2.0	2.0	87.0	86.0	6500	7700	**NU310**	**NJ310**	**NUP310**	**N310**	**NF310**	59	59	63	67	73	101	101	98	2	2	1.14
	110	27	65.0	-	2.0	2.0	110.0	113.0	5900	6900	**NU310E**	**NJ310E**	**NUP 310E**	**-**	**-**	59	-	63	67	73	101	-	-	2	2	1.31
	110	40	65.0	95.0	2.0	2.0	121.0	131.0	5700	6700	**NU2310**	**NJ2310**	**NUP2310**	**N2310**	**-**	59	59	63	67	73	101	101	98	2	2	1.68
	110	40	65.0	-	2.0	2.0	163.0	187.0	5200	6100	**NU2310E**	**NJ2310E**	**NUP2310E**	**-**	**-**	59	-	63	67	73	101	-	-	2	2	1.88
	130	31	70.8	110.8	2.1	2.1	139.0	136.0	4700	5500	**NU410**	**NJ410**	**NUP410**	**N410**	**NF410**	61	61	69	73	81	119	119	112	2	2	2.02

Single Row Cylindrical Roller Bearings

d 55 ~ 70mm



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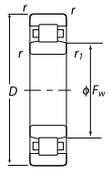

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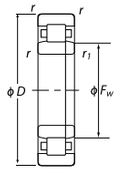

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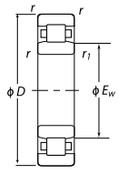

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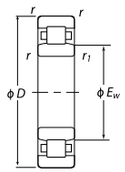


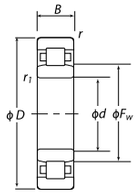
NF

Main Dimension (mm)							Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.			Bearing No.			Mounting dimensions (mm)										Weight (kg)
d	D	B	F_w	E_w	(r)	(r_1)	C_r	C_{0r}	Grease Lubrication	Oil Lubrication	NU Type	NJ Type		NUP Type	N Type	NF Type	D_s Min	D_1 Min	D_2 Max	D_3 Min	D_4 Min	d_h Max	d_1 Max	d_1 Min	R Max	R_1 Max	
55	90	18	64.5	80.5	1.1	1.1	37.5	44.0	8200	9700	**NU1011**	**NJ1011**		**NUP1011**	**N1011**	**-**	60	61.5	63	66	68.5	83.5	85	82	1	1	0.442
	100	21	66.5	88.5	1.5	1.5	61.0	66.5	6900	8200	**NU211**	**NJ211**		**NUP211**	**N211**	**NF211**	61.5	63	65	68	73	92	94	91	1.5	1	0.638
	100	21	66.0	-	1.5	1.5	82.5	93.0	6300	7400	**NU211E**	**NJ211E**		**NUP211E**	**-**	**-**	61.5	-	65	68	73	92	-	-	1.5	1	0.718
	100	25	66.5	88.5	1.5	1.5	79.0	93.0	6300	7400	**NU2211**	**NJ2211**		**NUP2211**	**N2211**	**-**	61.5	63	65	68	73	92	94	91	1.5	1	0.773
	100	25	66.0	-	1.5	1.5	97.0	114.0	5600	6600	**NU2211E**	**NJ2211E**		**NUP2211E**	**-**	**-**	61.5	-	65	68	73	92	-	-	1.5	1	0.968
	120	29	70.5	104.5	2.0	2.0	111.0	111.0	5900	7000	**NU311**	**NJ311**		**NUP311**	**N311**	**NF311**	64	64	69	72	80	111	111	107	2	2	1.45
	120	29	70.5	-	2.0	2.0	137.0	143.0	5300	6300	**NU311E**	**NJ311E**		**NUP311E**	**-**	**-**	64	-	69	72	80	111	-	-	2	2	1.65
	120	43	70..5	104.5	2.0	2.0	148.0	162.0	5200	6100	**NU2311**	**NJ2311**		**NUP2311**	**N2311**	**-**	64	64	69	72	80	111	111	107	2	2	2.17
	120	43	70.5	-	2.0	2.0	201.0	233.0	4700	5600	**NU2311E**	**NJ2311E**		**NUP2311E**	**-**	**-**	64	-	69	72	80	111	-	-	2	2	2.37
	140	33	77.2	117.2	2.1	2.1	139.0	138.0	4300	5000	**NU411**	**NJ411**		**NUP411**	**N411**	**NF411**	66	66	76	79	87	129	129	109	2	2	2.48
60	95	18	69.5	85.5	1.1	1.1	40.0	48.5	7500	8800	**NU1012**	**NJ1012**		**NUP1012**	**N1012**	**-**	65	66.5	68	71	73.5	88.5	90	87	1	1	0.474
	110	22	73.5	97.5	1.5	1.5	72.0	80.0	6400	7600	**NU212**	**NJ212**		**NUP212**	**N212**	**NF212**	68	68	71	75	80	102	102	100	1.5	1.5	0.818
	110	22	72.0	-	1.5	1.5	97.5	107.5	5800	6800	**NU212E**	**NJ212E**		**NUP212E**	**-**	**-**	68	-	71	75	80	102	-	-	1.5	1.5	0.923
	110	28	73.5	97.5	1.5	1.5	101.0	123.0	5800	6800	**NU2212**	**NJ2212**		**NUP2212**	**N2212**	**-**	68	68	71	75	80	102	102	100	1.5	1.5	1.06
	110	28	72.0	-	1.5	1.5	131.0	157.0	5200	6100	**NU2212E**	**NJ2212E**		**NUP2212E**	**-**	**-**	68	-	71	75	80	102	-	-	2	2	1.21
	130	31	77.0	113.0	2.1	2.1	124.0	126.0	5500	6500	**NU312**	**NJ312**		**NUP312**	**N312**	**NF312**	71	71	75	79	86	119	119	116	2	2	1.82
	130	31	77.0	-	2.1	2.1	150.0	157.0	4900	5800	**NU312E**	**NJ312E**		**NUP312E**	**-**	**-**	71	-	75	79	86	119	-	-	2	2	2.05
	130	46	77.0	113.0	2.1	2.1	169.0	188.0	4800	5700	**NU2312**	**NJ2312**		**NUP2312**	**N2312**	**-**	71	71	75	79	86	119	119	116	2	2	2.71
	130	46	77.0	-	2.1	2.1	222.0	262.0	4400	5200	**NU2312E**	**NJ2312E**		**NUP2312E**	**-**	**-**	71	-	75	79	86	119	-	-	2	2	2.96
	150	35	83.0	127.0	2.1	2.1	167.0	168.0	3900	4600	**NU412**	**NJ412**		**NUP412**	**N412**	**NF412**	71	71	82	85	94	139	139	128	2	2	3.02
65	100	18	74.5	90.5	1.1	1.0	41.0	51.0	7000	8200	**NU1013**	**NJ1013**		**NUP1013**	**N1013**	**-**	70	71.5	73	76	78.5	93.5	95	92	1	1	0.485
	120	23	79.6	105.6	1.5	1.5	84.0	94.5	5900	7000	**NU213**	**NJ213**		**NUP213**	**N213**	**NF213**	73	73	77	81	87	112	112	108	1.5	1.5	1.02
	120	23	78.5	-	1.5	1.5	108.0	119.0	5400	6300	**NU213E**	**NJ213E**		**NUP213E**	**-**	**-**	73	-	77	81	87	112	-	-	1.5	1.5	1.21
	120	31	79.6	105.6	1.5	1.5	120.0	149.0	5400	6300	**NU2213**	**NJ2213**		**NUP2213**	**N2213**	**-**	73	73	77	81	87	112	112	108	1.5	1.5	1.41
	120	31	78.5	-	1.5	1.5	149.0	181.0	4800	5600	**NU2213E**	**NJ2213E**		**NUP2213E**	**-**	**-**	73	-	77	81	87	112	-	-	1.5	1.5	1.62
	140	33	82.5	-	2.1	2.1	135.0	13.0	5100	6000	**NU313**	**NJ313**		**NUP313**	**N313**	**NF313**	76	76	81	85	93	129	129	125	2	2	2.23
	140	33	82.5	-	2.1	2.1	181.0	191.0	4600	5400	**NU313E**	**NJ313E**		**NUP313E**	**-**	**-**	76	-	81	85	93	129	-	-	2	2	2.54
	140	48	83.5	121.5	2.1	2.1	188.0	212.0	4400	5200	**NU2313**	**NJ2313**		**NUP2313**	**N2313**	**-**	76	76	81	85	93	129	129	125	2	2	3.27
	140	48	82.5	-	2.1	2.1	248.0	287.0	4100	4800	**NU2313E**	**NJ2313E**		**NUP2313E**	**-**	**-**	76	-	81	85	93	129	-	-	2	2	3.48
	160	37	89.3	135.3	2.1	2.1	195.0	203.0	3600	4300	**NU413**	**NJ413**		**NUP413**	**N413**	**NF413**	76	76	88	91	100	149	149	137	2	2	3.61
70	110	20	80.0	100.0	1.0	1.0	58.5	70.5	6500	7600	**NU1014**	**NJ1014**		**NUP1014**	**N1014**	**-**	75	76.5	78	82	85	103.5	105	101	1	1	0.699
	125	24	84.5	110.5	1.5	1.5	87.5	101.0	5500	6500	**NU214**	**NJ214**		**NUP214**	**N214**	**NF214**	78	78	82	86	92	117	117	114	1.5	1.5	1.12
	125	24	83.5	-	1.5	1.5	119.0	137.0	5000	5900	**NU214E**	**NJ214E**		**NUP214E**	**-**	**-**	78	-	82	86	92	117	-	-	1.5	1.5	1.32
	125	31	84.5	110.5	1.5	1.5	125.0	160.0	5000	5900	**NU2214**	**NJ2214**		**NUP2214**	**N2214**	**-**	78	78	82	86	92	117	117	114	1.5	1.5	1.47
	125	31	83.5	-	1.5	1.5	156.0	194.0	4500	5200	**NU2214E**	**NJ2214E**		**NUP2214E**	**-**	**-**	78	-	82	86	92	117	-	-	1.56	1.56	1.71
	150	35	90.0	130.0	2.1	2.1	158.0	168.0	4700	5500	**NU314**	**NJ314**		**NUP314**	**N314**	**NF314**	81	81	87	92	100	139	139	134	2	2	2.71

Estd. 1983 DPI BEARINGS

Single Row Cylindrical Roller Bearings

d 70 ~ 85mm



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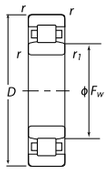

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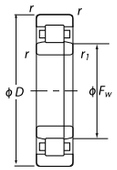

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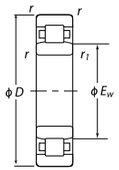

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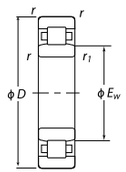


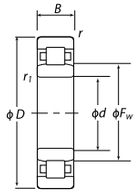
NF

Main Dimension (mm)							Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.			Bearing No.			Mounting dimensions (mm)										Weight (kg)
d	D	B	F_w	E_w	(r)	(r_1)	C_r	C_{0r}	Grease Lubrication	Oil Lubrication	NU Type	NJ Type		NUP Type	N Type	NF Type	D_s Min	D_1 Min	D_2 Max	D_3 Min	D_4 Min	d_h Max	d_1 Max	d_1 Min	R Max	R_1 Max	
70	150	35	89.0	-	2.1	2.1	205.0	222.0	1200	5000	**NU314E**	**NJ314E**		**NUP314E**	**-**	**-**	81	-	87	92	100	139	-	-	2	2	3.11
	150	51	90.0	130.0	2.1	2.1	223.0	262.0	4100	4800	**NU2314**	**NJ2314**		**NUP2314**	**N2314**	**-**	81	81	87	92	100	139	139	134	2	2	3.98
	150	51	89.0	-	2.1	2.1	274.0	325.0	3800	4400	**NU2314E**	**NJ2314E**		**NUP2314E**	**-**	**-**	81	-	87	92	100	139	-	-	2	2	4.25
	180	42	100.0	152.0	3.0	3.0	243.0	257.0	3400	4000	**NU414**	**NJ414**		**NUP414**	**N414**	**NF414**	83	83	99	102	112	167	167	153	2.2	2.2	5.24
75	115	20	85.0	105.0	1.1	1.0	60.0	74.5	6100	7100	**NU1015**	**NJ1015**		**NUP1015**	**N1015**	**-**	80	81.5	83	87	90	108.5	110	106	1	1	0.738
	130	25	88.5	116.5	1.5	1.5	101.0	118.0	5100	6000	**NU215**	**NJ215**		**NUP215**	**N215**	**NF215**	83	83	87	90	96	122	122	120	1.5	1.5	1.23
	130	25	88.5	-	1.5	1.5	130.0	156.0	4700	5500	**NU215E**	**NJ215E**		**NUP215E**	**-**	**-**	83	-	87	90	96	122	-	-	1.5	1.5	1.41
	130	31	88.5	116.5	1.5	1.5	136.0	172.0	4700	5500	**NU2215**	**NJ2215**		**NUP2215**	**N2215**	**-**	83	83	87	90	96	122	122	120	1.5	1.5	1.55
	130	31	88.5	-	1.5	1.5	162.	207.0	4200	4900	**NU2215E**	**NJ2215E**		**NUP2215E**	**-**	**-**	83	-	87	90	96	122	-	-	1.5	1.5	1.79
	160	37	95.5	139.5	2.1	2.1	190.0	205.0	4400	5200	**NU315**	**NJ315**		**NUP315**	**N315**	**NF315**	86	86	93	97	106	149	149	143	2	2	3.28
	160	37	95.0	-	2.1	2.1	240.0	263.	4000	4700	**NU315E**	**NJ315E**		**NUP315E**	**-**	**-**	86	-	93	97	106	149	-	-	2	2	3.74
	160	55	95.5	139.5	2.1	2.1	274.0	325.0	3800	4500	**NU2315**	**NJ2315**		**NUP2315**	**N2315**	**-**	86	86	93	97	106	149	149	143	2	2	4.87
	160	55	95.0	139.5	2.1	2.1	274.0	325.0	3800	4500	**NU2315E**	**NJ2315E**		**NUP2315E**	**-**	**-**	86	-	93	97	106	149	-	-	2	2	5.25
	190	45	104.5	160.5	3.0	3.0	262.0	274.0	3200	3700	**NU415**	**NJ415**		**NUP415**	**N145**	**NF415**	88	88	103	107	118	177	177	162	2.5	2.5	6.22
80	125	22	91.5	113.5	1.1	1.0	72.5	90.5	5700	6700	**NU1016**	**NJ1016**		**NUP1016**	**N1016**	**-**	85	86.5	90	94	97	118.5	120	115	1	1	0.98
	140	26	95.3	125.3	2.0	2.0	111.0	130.0	4800	5700	**NU216**	**NJ216**		**NUP216**	**N216**	**NF216**	89	89	94	97	104	131	131	128	2	2	1.52
	140	26	95.3	-	2.0	2.0	139.0	167.0	4400	5100	**NU216E**	**NJ216E**		**NUP216E**	**-**	**-**	89	-	94	97	104	131	-	-	2	2	1.67
	140	33	95.3	125.3	2.0	2.0	154.0	198.0	4400	5100	**NU2216**	**NJ2216**		**NUP2216**	**N2216**	**-**	89	89	94	97	104	131	131	128	2	2	1.93
	140	33	95.3	-	2.0	2.0	186.0	243.0	3900	4600	**NU2216E**	**NJ2216E**		**NUP2216E**	**-**	**-**	89	-	94	97	104	131	-	-	2	2	2.12
	170	39	103.0	147.0	2.1	2.1	201.0	223.0	4100	4800	**NU316**	**NJ316**		**NUP316**	**N316**	**NF316**	91	91	99	105	114	159	159	151	2	2	3.86
	170	39	101.0	-	2.1	2.1	256.0	282.0	2700	4400	**NU316E**	**NJ316E**		**NUP316E**	**-**	**-**	91	-	99	105	114	159	-	-	2	2	4.22
	170	58	103.0	147.0	2.1	2.1	274.0	330.0	3600	4200	**NU2316**	**NJ2316**		**NUP2316**	**N2316**	**-**	91	91	99	105	114	159	159	151	2	2	5.79
	170	58	101.0	-	2.1	2.1	355.0	430.0	3300	3900	**NU2316E**	**NJ2316E**		**NUP2316E**	**-**	**-**	91	-	99	105	114	159	-	-	2	2	6.25
	200	48	110.0	170.0	3.0	3.0	299.0	315.0	3000	3500	**NU416**	**NJ416**		**NUP416**	**N416**	**NF416**	93	93	109	112	124	187	187	172	2.5	2.5	7.32
85	130	22	96.5	118.5	1.1	1.0	74.5	95.5	5400	6300	**NU1017**	**NJ1017**		**NUP1017**	**N1017**	**-**	90	91.5	95	99	102	123.5	125	120	1	1	1.03
	150	28	101.8	133.8	2.0	2.0	126.0	149.0	4500	5300	**NU217**	**NJ217**		**NUP217**	**N217**	**NF217**	94	94	99	104	110	141	141	137	2	2	1.87
	150	28	100.5	-	2.0	2.0	167.0	199.0	4100	4800	**NU217E**	**NJ217E**		**NUP217E**	**-**	**-**	94	-	99	104	110	141	-	-	2	2	2.11
	150	36	101.8	133.8	2.0	2.0	178.0	232.0	4100	4800	**NU2217**	**NJ2217**		**NUP2217**	**N2217**	**-**	94	94	99	104	110	141	141	137	2	2	2.44
	150	36	100.5	-	2.0	2.0	217.0	279.0	3700	4300	**NU2217E**	**NJ2217E**		**NUP2217E**	**-**	**-**	94	-	99	104	110	141	-	-	2	2	2.67
	180	41	108.0	156.0	3.0	3.0	225.0	247.0	3900	4600	**NU317**	**NJ317**		**NUP317**	**N317**	**NF317**	98	98	106	110	119	167	167	160	2.5	2.5	4.54
	180	41	108.0	-	3.0	3.0	291.0	330.0	3500	4100	**NU317E**	**NJ317E**		**NUP317E**	**-**	**-**	98	-	106	110	119	167	-	-	2.5	2.5	4.81
	180	60	108.0	156.0	3.0	3.0	315.0	380.0	3400	4000	**NU2317**	**NJ2317**		**NUP2317**	**N2317**	**-**	98	98	106	110	119	167	167	160	2.5	2.5	6.7
	180	60	108.0	-	3.0	3.0	395.0	485.0	3100	3700	**NU2317E**	**NJ2317E**		**NUP2317E**	**-**	**-**	98	-	106	110	119	167	-	-	2.5	2.5	7.16
	210	52	113.0	177.0	4.0	4.0	335.0	350.0	2800	330	**NU417**	**NJ417**		**NUP417**	**N417**	**NF417**	101	101	111	115	128	194	194	179	3	3	9.41

Estd. 1983 DPI BEARINGS

Single Row Cylindrical Roller Bearings

d 90~ 105mm



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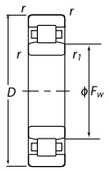

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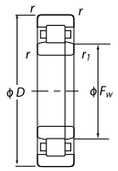

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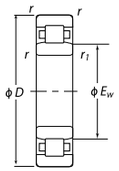

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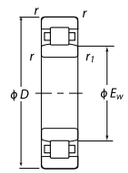
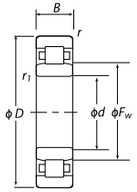


NF

Main Dimension (mm)							Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.			Bearing No.			Mounting dimensions (mm)										Weight (kg)
d	D	B	F_w	E_w	(r)	(r_1)	C_r	C_{0r}	Grease Lubrication	Oil Lubrication	NU Type	NJ Type		NUP Type	N Type	NF Type	D_s Min	D_1 Min	D_2 Max	D_3 Min	D_4 Min	d_h Max	d_1 Max	d_1 Min	R Max	R_1 Max	
90	140	24	103.0	127.0	1.5	1.1	88.0	114.0	5100	5900	**NU1018**	**NJ1018**		**NUP1018**	**N1018**	**-**	96.5	98	101	106	109	132	134	129	1.5	1	1.33
	160	30	107.0	143.0	2.0	2.0	152.0	178.0	4300	500	**NU218**	**NJ218**		**NUP218**	**N218**	**NF218**	99	99	105	109	116	151	151	146	2	2	2.29
	160	30	107.0	-	2.0	2.0	182.0	217.0	3900	4600	**NU218E**	**NJ218E**		**NUP218E**	**-**	**-**	99	-	105	109	116	151	-	-	2	2	2.44
	160	40	107.0	143.0	2.0	2.0	207.0	265.0	3900	4600	**NU2218**	**NJ2218**		**NUP2218**	**N2218**	**-**	99	99	105	109	116	151	151	146	2	2	3.09
	160	40	107.0	-	2.0	2.0	242.0	315.0	3500	4100	**NU2218E**	**NJ2218E**		**NUP2218E**	**-**	**-**	99	-	105	109	116	151	-	-	2	2	3.33
	190	43	115.0	165.0	3.0	3.0	240.0	265.0	3700	4300	**NU318**	**NJ318**		**NUP318**	**N318**	**NF318**	103	103	111	117	127	177	177	169	2.5	2.5	5.31
	190	43	113.5	-	3.0	3.0	315.0	355.0	3300	3900	**NU318E**	**NJ318E**		**NUP318E**	**-**	**-**	103	-	111	117	127	177	-	-	2.5	2.5	5.72
	190	64	115.0	165.0	3.0	3.0	325.0	395.0	3200	3800	**NU2318**	**NJ2318**		**NUP2318**	**N2318**	**-**	103	103	111	117	127	177	177	169	2.5	2.5	7.95
	190	64	113.5	-	3.0	3.0	435.0	535.0	2900	3400	**NU2318E**	**NJ2318E**		**NUP2318E**	**-**	**-**	103	-	111	117	127	177	-	-	2.5	2.5	8.56
	225	54	123.5	191.5	4.0	4.0	375.0	400.0	2600	3100	**NU418**	**NJ418**		**NUP418**	**N418**	**NF418**	106	106	122	125	139	209	209	194	3	3	11.2
95	145	24	108.0	132.0	1.5	1.1	90.5	120.0	4800	5600	**NU1019**	**NJ1019**		**NUP1019**	**N1019**	**-**	101.5	103	106	111	114	137	139	134	1.5	1	1.42
	170	32	113.5	151.5	2.1	2.1	166.0	195.0	4000	4700	**NU219**	**NJ219**		**NUP219**	**N219**	**NF219**	106	106	111	116	123	1559	159	155	2	2	2.78
	170	32	112.5	-	2.1	2.1	220.0	265.0	3600	4300	**NU219E**	**NJ219E**		**NUP219E**	**-**	**-**	106	-	111	116	123	159	-	-	2	2	3.02
	170	43	113.5	151.5	2.1	2.1	230.0	298.0	3600	4300	**NU2219**	**NJ2219**		**NUP2219**	**N2219**	**-**	106	-	111	116	123	159	159	155	2	2	3.79
	170	43	112.5	-	2.1	2.1	286.0	370.0	3300	3800	**NU2219E**	**NJ2219E**		**NUP2219E**	**-**	**-**	106	-	111	116	123	159	-	-	2	2	4.14
	200	45	121.5	173.5	3.0	3.0	274.0	310.0	3400	4000	**NU319**	**NJ319**		**NUP319**	**N319**	**NF319**	108	108	119	124	134	187	187	178	2.5	2.5	6.13
	200	45	121.5	-	3.0	3.0	335.0	385.0	3100	3600	**NU319E**	**NJ319E**		**NUP319E**	**-**	**-**	108	-	119	124	134	187	-	-	2.5	2.5	6.62
	200	67	121.5	173.5	3.0	3.0	395.0	495.0	3000	3500	**NU2319**	**NJ2319**		**NUP2319**	**N2319**	**-**	108	108	119	124	134	187	187	178	2.5	2.5	9.21
	200	67	121.5	-	3.0	3.0	460.0	585.0	2700	3200	**NU2319E**	**NJ2319E**		**NUP2319E**	**-**	**-**	108	-	119	124	134	187	-	-	2.5	2.5	9.81
	240	55	133.5	201.5	4.0	4.0	400.0	445.0	2500	2900	**NU419**	**NJ419**		**NUP419**	**N419**	**NF419**	111	111	132	136	149	224	224	204	3	3	13.2
100	150	24	113.0	137.0	1.5	1.5	93.0	126.	4600	5400	**NU1020**	**NJ1020**		**NUP1020**	**N1020**	**-**	106.5	108	111	116	119	142	144	139	1.5	1	1.45
	180	34	120.0	160.0	2.1	2.1	183.0	217.0	3800	4500	**NU220**	**NJ220**		**NUP220**	**N220**	**NF220**	111	111	117	122	130	169	169	164	2	2	3.33
	180	34	119.0	-	2.1	2.1	249.0	305.0	3500	4100	**NU220E**	**NJ220E**		**NUP220E**	**-**	**-**	111	-	117	122	130	169	-	-	2	2	3.66
	180	46	120.0	160.0	2.1	2.1	258.0	340.0	3500	4100	**NU2220**	**NJ2220**		**NUP2220**	**N2220**	**-**	111	111	117	122	130	169	169	164	2	2	4.57
	180	46	119.0	-	2.1	2.1	335.0	445.0	3100	3600	**NU2220E**	**NJ2220E**		**NUP2220E**	**-**	**-**	111	-	117	122	130	169	-	-	2	2	5.01
	215	47	127.5	185.5	3.0	3.0	315.0	365.0	3300	3800	**NU320**	**NJ320**		**NUP320**	**N320**	**NF320**	113	113	125	132	143	202	202	190	2.5	2.5	7.49
	215	47	127.5	-	3.0	3.0	380.0	425.0	2900	3500	**NU320E**	**NJ320E**		**NUP320E**	**-**	**-**	113	-	125	132	143	202	-	-	2.5	2.5	8.57
	215	73	129.5	185.5	3.0	3.0	460.0	590.0	2900	3400	**NU2320**	**NJ2320**		**NUP2320**	**N2320**	**-**	113	113	125	132	143	202	202	190	2.5	2.5	11.7
	215	73	127.5	-	3.0	3.0	570.0	715.0	2600	3100	**NU2320E**	**NJ2320E**		**NUP2320E**	**-**	**-**	113	-	125	132	143	202	-	-	2.5	2.5	12.8
	250	58	139.0	211.0	4.0	4.0	445.0	495.0	2300	2800	**NU420**	**NJ420**		**NUP420**	**N420**	**NF420**	116	116	137	141	156	234	234	213	3	3	14.9
105	160	26	119.5	145.5	2.0	2.0	105.0	142.0	4300	5100	**NU1021**	**NJ1021**		**NUP1021**	**N1021**	**-**	111.5	114	118	122	126	151	154	148	2	1	1.84
	190	36	126.8	168.8	2.1	2.1	201.0	241.0	3600	4300	**NU221**	**NJ221**		**NUP221**	**N221**	**NF221**	116	116	124	129	137	179	179	173	2	2	3.95
	225	49	135.0	195.0	3.0	3.0	360.0	415.0	3100	3700	**NU321**	**NJ321**		**NUP321**	**N321**	**NF321**	118	118	132	137	149	212	212	199	2.5	2.5	8.53
	260	60	144.5	220.5	4.0	4.0	495.0	555.0	2200	2600	**NU421**	**NJ421**		**NUP421**	**N421**	**NF421**	121	121	143	147	162	244	244	223	3	3	16.6

Estd. 1983 DPI BEARINGS

Single Row Cylindrical Roller Bearings



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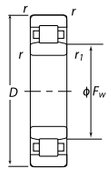

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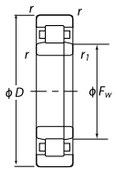

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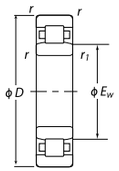

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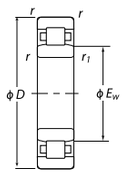


NF

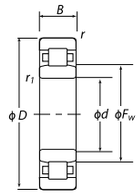
d 110 ~ 140mm

Main Dimension (mm)							Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.			Bearing No.			Mounting dimensions (mm)										Weight (kg)
d	D	B	F_w	E_w	(r)	(r_1)	C_r	C_{0r}	Grease Lubrication	Oil Lubrication	NU Type	NJ Type		NUP Type	N Type	NF Type	D_5 Min	D_1 Min	D_2 Max	D_3 Min	D_4 Min	d_h Max	d_1 Max	d_1 Min	R Max	R_1 Max	
110	170	28	125.0	155.0	2.0	2.0	131.	174.0	4100	4800	**NU1022**	**NJ1022**		**NUP1022**	**N1022**	**-**	116.5	119	124	128	132	161	164	157	2	1	2.33
	200	38	132.5	178.5	2.1	2.1	240.0	290.0	3400	4000	**NU222**	**NJ222**		**NUP222**	**N222**	**NF222**	121	121	130	135	144	189	189	182	2	2	4.63
	200	38	132.5	-	2.1	2.1	293.0	365.0	3100	3700	**NU222E**	**NJ222E**		**NUP222E**	**-**	**-**	121	-	130	135	144	189	-	-	2	2	4.27
	200	53	132.5	178.5	2.1	2.1	335.0	440.0	3100	3700	**NU2222**	**NJ2222**		**NUP2222**	**N2222**	**-**	121	121	130	135	144	185	189	182	2	2	6.56
	200	53	132.5	-	2.1	2.1	385.0	515.0	2800	3300	**NU2222E**	**NJ2222E**		**NUP2222E**	**-**	**-**	121	-	130	135	144	189	-	-	2	2	7.41
	240	50	143.0	207.0	3.0	3.0	400.0	465.0	3000	3500	**NU322**	**NJ322**		**NUP322**	**N322**	**NF322**	123	123	140	145	158	227	227	211	2.5	2.5	10.1
	240	50	143.0	-	3.0	3.0	450.0	525.0	2700	3100	**NU322E**	**NJ322E**		**NUP322E**	**-**	**-**	123	123	140	145	158	227	-	-	2.5	2.5	11.1
	240	80	143.0	207.0	3.0	3.0	605.0	790.0	2600	3100	**NU2322**	**NJ2322**		**NUP2322**	**N2322**	**-**	123	123	140	145	158	227	227	211	2.5	2.5	17.1
	240	80	143.0	-	3.0	3.0	675.0	880.0	2400	2800	**NU2322E**	**NJ2322E**		**NUP2322E**	**-**	**-**	123	-	140	145	158	227	-	-	2.5	2.5	19.4
	280	65	155.0	235.0	4.0	4.0	550.0	620.0	2100	2500	**NU422**	**NJ422**		**NUP422**	**N422**	**NF422**	126	126	153	157	173	264	264	237	3	3	21.1
120	180	28	135.0	165.0	2.0	2.0	139.0	191.0	3800	4400	**NU1024**	**NJ1024**		**NUP1024**	**N1024**	**-**	126.5	129	134	138	142	171	174	167	2	1	2.44
	215	40	143.5	191.5	2.1	2.1	272.0	340.0	3200	3700	**NU224**	**NJ224**		**NUP224**	**N224**	**NF224**	131	131	141	146	156	204	204	196	2	2	5.57
	215	40	143.5	-	2.1	2.1	335.0	420.0	2900	3400	**NU224E**	**NJ224E**		**NUP224E**	**-**	**-**	131	-	141	146	156	204	-	-	2	2	5.97
	215	58	143.5	191.5	2.1	2.1	380.0	525.0	2900	3400	**NU2224**	**NJ2224**		**NUP2224**	**N2224**		131	131	141	146	156	204	204	196	2	2	8.19
	215	58	143.5	-	2.1	2.1	450.0	620.0	2600	3000	**NU2224E**	**NJ2224E**		**NUP2224E**	**-**	**-**	131	-	141	146	156	204	-	-	2	2	9.18
	215	55	154.0	226.0	3.0	3.0	475.0	550.0	2700	3200	**NU324**	**NJ324**		**NUP324**	**N324**	**NF324**	133	133	151	156	171	247	247	230	2.5	2.5	12.8
120	260	55	154.0	-	3.0	3.0	530.0	610.0	2400	2800	**NU324E**	**NJ324E**		**NUP324E**	**-**	**-**	133	-	151	156	171	247	-	-	2.5	2.5	13.9
	260	86	154.0	226.0	3.0	3.0	710.0	920.0	2400	2800	**NU2324**	**NJ2324**		**NUP2324**	**N2324**	**-**	133	133	151	156	171	247	247	230	2.5	2.5	21.5
	260	86	154.0	-	3.0	3.0	795.0	1030.0	2200	2500	**NU2324E**	**NJ2324E**		**NUP2324E**	**-**	**-**	133	-	151	156	171	247	-	-	2.5	2.5	26.1
	310	72	170.0	260.0	5.0	5.0	675.0	770.0	1900	2300	**NU424**	**NJ424**		**NUP424**	**N424**	**NF424**	140	140	168	172	190	290	290	262	4	4	28.9
130	200	32	148.0	182.0	2.0	1.1	172.0	238.0	3400	4000	**NU1026**	**NJ1026**		**NUP1026**	**N1026**	**-**	136.5	139	146	151	156	191	194	194	2	1	3.69
	230	40	156.0	204.0	3.0	3.0	282.0	360.0	2900	3400	**NU226**	**NJ226**		**NUP226**	**N226**	**NF226**	143	143	151	158	168	217	217	208	2.5	2.5	6.32
	230	40	153.5	-	3.0	3.0	365.0	455.0	2600	3100	**NUNU226E**	**NJ226E**		**NUP226E**	**-**	**-**	143	-	151	158	168	217	-	-	2.5	2.5	6.92
	230	64	156.0	204.0	3.0	3.0	395.0	560.0	2600	3400	**NU2226**	**NJ2226**		**NUP2226**	**N2226**	**-**	143	143	151	158	168	217	217	208	2.5	2.5	10.2
	230	64	153.5	-	3.0	3.0	530.0	735.0	2300	2700	**NU2226E**	**NJ2226E**		**NUP2226E**	**-**	**-**	143	-	151	158	168	217	-	-	2.5	2.5	11.8
	280	58	167.0	243.0	4.0	4.0	560.0	665.0	2500	2900	**NU326**	**NJ326**		**NUP326**	**N326**	**NF326**	146	146	164	169	184	264	-	-	3	3	30.9
	280	58	167.0	-	4.0	4.0	615.0	735.0	2200	2600	**NU326E**	**NJ326E**		**NUP326E**	**-**	**-**	146	-	164	169	184	264	-	-	3	3	19.4
	280	93	167.0	243.0	4.0	4.0	840.0	1130.0	2200	2600	**NU2326**	**NJ2326**		**NUP2326**	**N2326**	**-**	146	146	164	169	184	264	264	247	3	3	26.9
	280	93	167.0	-	4.0	4.0	920.0	1230.0	2000	2300	**NU2326E**	**NJ2326E**		**NUP2326E**	**-**	**-**	146	-	164	169	184	264	-	-	3	3	30.9
	340	78	185.0	285.0	5.0	5.0	825.0	955.0	1800	2100	**NU426**	**NJ426**		**NUP426**	**N426**	**NF426**	150	150	183	187	208	320	320	287	4	4	37.7
140	210	33	158.0	192.0	2.0	1.1	176.0	250.0	3200	3800	**NU1028**	**NJ1028**		**NUP1028**	**N1028**	**-**	146.5	149	156	161	166	201	204	194	2	1	4.05
	250	42	169.0	221.0	3.0	3.0	325.0	420.0	2700	3100	**NU228**	**NJ228**		**NUP228**	**N228**	**NF228**	153	153	166	171	182	237	237	225	2.5	2.5	7.88
	250	42	169.0	-	3.0	3.0	395.0	515.0	2400	2800	**NU228E**	**NJ228E**		**NUP228E**	**-**	**-**	153	-	166	171	182	237	-	-	2.5	2.5	8.73
	250	68	169.0	221.0	3.0	3.0	465.0	670.0	2400	2800	**NU2228**	**NJ2228**		**NUP2228**	**N2228**	**-**	153	153	166	171	182	237	237	225	2.5	2.5	12.9
	250	68	169.0	-	3.0	3.0	575.0	835.0	2100	2500	**NU2228E**	**NJ2228E**		**NUP2228E**	**-**	**-**	153	-	166	171	182	237	-	-	2.5	2.5	15.8
	300	62	180.0	260.0	4.0	4.0	615.0	745.0	2300	2700	**NU328**	**NJ328**		**NUP328**	**N328**	**NF328**	156	156	176	182	198	284	284	265	3	3	21.2
	300	62	180.0	-	4.0	4.0	665.0	795.0	2100	2400	**NU328E**	**NJ328E**		**NUP328E**	**-**	**-**	156	-	176	182	198	284	-	-	3	3	23.2
	300	102	180.0	260.0	4.0	4.0	920.0	1250.0	2000	2300	**NU2328**	**NJ2328**		**NUP2328**	**N2328**	**-**	156	156	176	182	198	284	284	265	3	3	33.8
	300	102	180.0	-	4.0	4.0	1020.0	1380.0	1800	2100	**NU2328E**	**NJ2328E**		**NUP2328E**	**-**	**-**	156	-	176	182	198	284	-	-	3	3	38.7
	360	82	198.0	302.0	5.0	5.0	875.0	1020	1600	1900	**NU428**	**NJ428**		**NUP428**	**N428**	**NF428**	160	160	195	200	222	340	340	304	4	4	44.3

Estd. 1983 DPI BEARINGS

Single Row Cylindrical Roller Bearings

d 150 ~ 180mm



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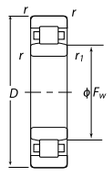

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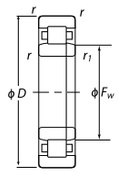

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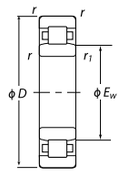

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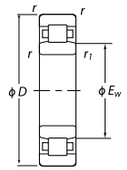


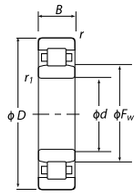
NF

Main Dimension (mm)							Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.			Bearing No.			Mounting dimensions (mm)										Weight (kg)
d	D	B	F_w	E_w	(r)	(r_1)	C_r	C_{0r}	Grease Lubrication	Oil Lubrication	NU Type	NJ Type		NUP Type	N Type	NF Type	D_s Min	D_1 Min	D_2 Max	D_3 Min	D_4 Min	d_h Max	d_1 Max	d_1 Min	R Max	R_1 Max	
150	225	35	169.5	205.5	2.1	1.5	202.0	294.0	3000	3500	**NU1030**	**NJ1030**		**NUP1030**	**N1030**	**-**	158	161	167	173	178	214	217	208	2	1.5	4.77
	270	45	182.0	238.0	3.0	3.0	375.0	490.0	2500	2900	**NU230**	**NJ230**		**NUP230**	**N230**	**NF230**	163	163	179	184	196	257	257	242	2.5	2.5	9.92
	270	45	182.0	-	3.0	3.0	450.0	595.0	2200	2600	**NU230E**	**NJ230E**		**NUP230E**	**-**	**-**	163	-	179	184	196	257	-	-	2.5	2.5	11.1
	270	73	182.0	238.0	3.0	3.0	545.0	800.0	2200	2600	**NU2230**	**NJ2230**		**NUP2230**	**N2230**	**-**	163	163	179	184	196	257	257	242	2.5	2.5	16.3
	270	73	182.0	-	3.0	3.0	660.0	980.0	2000	2400	**NU2230E**	**NJ2230E**		**NUP2230E**	**-**	**-**	163	-	179	184	196	257	-	-	2.5	2.5	19.7
	320	65	193.0	227.0	4.0	4.0	665.0	805.0	2100	2500	**NU330**	**NJ330**		**NUP330**	**N330**	**NF330**	166	166	190	195	213	304	304	282	3	3	25.3
	320	65	193.0	-	4.0	4.0	760.0	920.0	1900	2300	**NU330E**	**NJ330E**		**NUP330E**	**-**	**-**	166	-	190	195	213	304	-	-	3	3	28.4
	320	108	193.0	277.0	4.0	4.0	1020.0	1400.0	1900	2200	**NU2330**	**NJ2330**		**NUP2330**	**N2330**	**-**	166	166	190	195	213	304	304	282	3	3	40.6
	320	108	193.0	-	4.0	4.0	1160.0	1600.0	1700	2000	**NU2330E**	**NJ2330E**		**NUP2330E**	**-**	**-**	166	-	190	195	213	304	-	-	3	3	47.2
	380	85	213.0	317.0	5.0	5.0	930.0	1120.0	1500	1800	**NU430**	**NJ430**		**NUP430**	**N430**	**NF430**	170	170	210	216	237	360	360	319	4	4	50.8
160	240	38	180.0	220.0	2.1	1.5	238.0	340.0	2800	3300	**NU1032**	**NJ1032**		**NUP1032**	**N1032**	**-**	168	171	178	184	189	229	232	222	2	1.5	5.91
	290	48	195.0	255.0	3.0	3.0	430.0	570.0	2300	2700	**NU232**	**NJ232**		**NUP232**	**N232**	**NF232**	173	173	192	197	210	277	277	259	2.5	2.5	13.7
	290	48	195.0	-	3.0	3.0	500.0	665.0	2100	2400	**NU232E**	**NJ232E**		**NUP232E**	**-**	**-**	173	-	192	197	210	277	-	-	2.5	2.5	15.6
	290	80	195.0	255.0	3.0	3.0	630.0	940.0	2100	2400	**NU2232**	**NJ2232**		**NUP2232**	**N2232**	**-**	173	173	192	197	210	277	277	259	2.5	2.5	22.1
	290	80	193.0	-	3.0	3.0	810.0	1190.0	1900	2200	**NU2232E**	**NJ2232E**		**NUP2232E**	**-**	**-**	173	-	192	197	210	277	-	-	2.5	2.5	25.1
	340	68	208.0	292.0	4.0	4.0	700.0	875.0	2000	2300	**NU332**	**NJ332**		**NUP332**	**N332**	**NF332**	176	176	200	211	228	324	324	297	3	3	31.3
	340	68	204.0	-	4.0	4.0	860.0	1050.0	1800	2100	**NU332E**	**NJ332E**		**NUP332E**	**-**	**-**	176	-	200	211	228	324	-	-	3	3	34
	340	114	208.0	292.0	4.0	4.0	1070.0	1520.0	1700	2000	**NU2332**	**NJ2332**		**NUP2332**	**N2332**	**-**	176	176	200	211	228	324	324	297	3	3	50.5
	340	114	204.0	-	4.0	4.0	1310.0	1820.0	1600	1900	**NU2332E**	**NJ2332E**		**NUP2332E**	**-**	**-**	176	-	200	211	228	324	-	-	3	3	56
170	260	42	193.0	237.0	2.1	2.1	278.0	400.0	2600	3000	**NU1034**	**NJ1034**		**NUP1034**	**N1034**	**-**	181	181	190	197	203	249	249	239	2	2	7.88
	310	52	208.0	272.0	4.0	4.0	475.0	635.0	2200	2500	**NU234**	**NJ234**		**NUP234**	**N234**	**NF234**	186	186	204	211	223	294	294	277	3	3	17
	310	52	207.0	-	4.0	4.0	605.0	800.0	2000	2300	**NU234E**	**NJ234E**		**NUP234E**	**-**	**-**	186	-	204	211	223	294	-	-	3	3	19.6
	310	86	208.0	272.0	4.0	4.0	715.0	1080.0	2000	2300	**NU2234**	**NJ2234**		**NUP2234**	**N2234**	**-**	186	186	204	211	223	294	294	277	3	3	27.2
	310	86	205.0	-	4.0	4.0	965.0	1410.0	1800	2100	**NU2234E**	**NJ2234E**		**NUP2234E**	**-**	**-**	186	-	204	211	223	294	-	-	3	3	31
	360	72	220.0	310.0	4.0	4.0	795.0	1010.0	1800	2200	**NU334**	**NJ334**		**NUP334**	**N334**	**NF334**	186	186	216	223	241	344	344	315	3	3	37
	360	120	220.0	310.0	4.0	4.0	1220.0	1750.0	1600	1900	**NU2334**	**NJ2334**		**NUP2334**	**N2334**	**-**	186	186	216	223	241	344	344	315	3	3	59.5
180	280	46	205.0	255.0	2.1	2.1	340.0	485.0	2400	2900	**NU1036**	**NJ1036**		**NUP1036**	**N1036**	**-**	191	191	203	209	216	269	269	257	2	2	10.3
	320	52	218.0	282.0	4.0	4.0	495.0	675.0	2000	2400	**NU236**	**NJ236**		**NUP236**	**N236**	**NF236**	196	196	214	221	233	304	304	287	3	3	17.7
	320	52	217.0	-	4.0	4.0	625.0	850.0	1800	2200	**NU236E**	**NJ236E**		**NUP236E**	**-**	**-**	196	-	214	221	233	304	-	-	3	3	20.4
	320	86	218.0	282.0	4.0	4.0	625.0	850.0	1800	2200	**NU2236**	**NJ2236**		**NUP2236**	**N2236**	**-**	196	196	214	221	233	304	304	287	3	3	28.4
	320	86	215.0	-	4.0	4.0	1010.0	1150.0	1600	1900	**NU2236E**	**NJ2236E**		**NUP2236E**	**-**	**-**	196	-	214	221	233	304	-	-	3	3	31.9
	380	75	232.0	328.0	4.0	4.0	905.0	1150.0	1700	200	**NU336**	**NJ336**		**NUP336**	**N336**	**NF336**	196	196	227	235	255	364	364	333	3	3	44.2
	380	126	232.0	328.0	4.0	4.0	1380.0	1990.0	1500	1800	**NU2336**	**NJ2336**		**NUP2336**	**N2336**	**-**	196	196	227	235	255	364	364	333	3	3	69.5

05 | Cylindrical Roller Bearing

Single Row Cylindrical Roller Bearings

d 190 ~ 200mm



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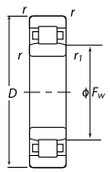

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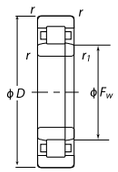

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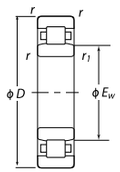
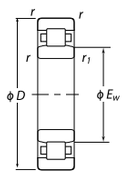


N



NF

Main Dimension (mm)							Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.			Bearing No.			Mounting dimensions (mm)										Weight (kg)
d	D	B	F_w	E_w	(r)	(r_1)	C_r	C_{0r}	Grease Lubrication	Oil Lubrication	NU Type	NJ Type		NUP Type	N Type	NF Type	D_s Min	D_1 Min	D_2 Max	D_3 Min	D_4 Min	d_h Max	d_1 Max	d_1 Min	R Max	R_1 Max	
190	290	46	215.0	265.0	2.1	2.1	350.0	510.0	2300	2700	**NU1038**	**NJ1038**		**NUP1038**	**N1038**	**-**	201	201	213	219	226	279	279	267	2	2	10.7
	340	55	231.0	299.0	4.0	4.0	555.0	770.0	1900	2200	**NU238**	**NJ238**		**NUP238**	**N238**	**NF238**	206	206	227	234	247	324	324	304	3	3	21.3
	340	55	230.0	-	4.0	4.0	695.0	955.0	1700	2000	**NU238E**	**NJ238E**		**NUP238E**	**-**	**-**	206	-	227	234	247	324	-	-	3	3	24.2
	340	92	231.0	299.0	4.0	4.0	830.0	1290.0	1700	2000	**NU2238**	**NJ2238**		**NUP2238**	**N2238**	**-**	206	206	227	234	247	324	324	304	3	3	34.4
	340	92	228.0	-	4.0	4.0	1100.0	1670.0	1500	1800	**NU2238E**	**NJ2238E**		**NUP2238E**	**-**	**-**	206	-	227	234	247	324	-	-	3	3	39.5
	400	78	245.0	345.0	5.0	5.0	975.0	1260.0	1600	1900	**NU338**	**NJ338**		**NUP338**	**N338**	**NF338**	210	210	240	248	268	380	380	351	4	4	80.5
	400	132	245.0	345.0	5.0	5.0	1520.0	2220.0	1400	1700	**NU2338**	**NJ2338**		**NUP2338**	**N2338**	**-**	210	210	240	248	268	380	380	351	4	4	80.5
200	310	51	229.0	281.0	2.1	2.1	390.0	580.0	2200	2600	**NU1040**	**NJ1040**		**NUP1040**	**N1040**	**-**	211	211	226	233	241	299	299	283	2	2	13.9
	360	58	244.0	316.0	4.0	4.0	620.0	865.0	1800	2100	**NU240**	**NJ240**		**NUP240**	**N240**	**NF240**	216	216	240	247	261	344	344	321	3	3	25.3
	360	58	243.0	-	4.0	4.0	765.0	1060.0	1600	1900	**NU240E**	**NJ240E**		**NUP240E**	**-**	**-**	216	-	240	247	261	344	-	-	3	3	28.1
	360	98	244.0	316.0	4.0	4.0	620.0	865.0	1600	1900	**NU2240**	**NJ2240**		**NUP2240**	**N2240**	**-**	216	216	240	247	261	344	344	321	3	3	41.3
	360	98	241.0	-	4.0	4.0	1220.0	1870	1500	1700	**NU2240E**	**NJ2240E**		**NUP2240E**	**-**	**-**	216	-	340	247	261	344	-	-	3	3	47.8
	420	80	260.0	360.0	5.0	5.0	975.0	1270.0	1500	1800	**NU340**	**NJ340**		**NUP340**	**N340**	**NF340**	220	220	254	263	283	400	400	366	4	4	55.8
	420	138	260.0	360.0	5.0	5.0	1510.0	2240.0	1400	1600	**NU2340**	**NJ2340**		**NUP2340**	**N2340**	**-**	220	220	254	263	283	400	400	366	4	4	92.6

Tapered Roller Bearings

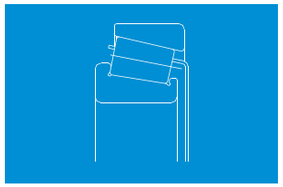
Tapered roller bearings have tapered surfaces whose apexes converge at a common point on the bearing axis. This type of bearing is suitable for applications involving heavy or impact loading.
Single Row Tapered Roller Bearings
Single row tapered roller bearings are able to carry axial and radial load in one direction simultaneously.

Taper Roller Bearing

Taper roller bearings are mainly used to bear radial and axial combined loading (mainly radial), large taper angle taper roller bearing can be used to bear radial and axial combined loading (mainly axial). These bearings are separate type bearings, whose inner race components (including taper roller and retainer) and outer space can be mounted respectively. During mounting and use, the radial clearance and axial clearance of the bearings can be adjusted, and pre-mounting is also possible.

1. Main structure types

1.Single-row taper roller bearing 30000



This type of bearings can limit the axial displacement of shaft and housing in one direction, and bear axial road from one direction. Affected by radial load, they will generated additional axial force, and are generally used in pairs in the two bearers of the shaft. 31300 series taper roller bearings have large contact angles (27-30), and can generate large axial load. The contact angels of the other bearings of other series are between 10-18.

2. Permitted inclination angle

If the contact state of the roller ring is proper, it cannot only prevent the abnormal margin load of contact surface, but can also allow the inner/outer race inclination caused by alignment error, etc. The permitted inclination angles of taper roller bearings are generally 0.0005rad (1.5') for back-to-back combination, and 0.001rad (1.5') for face-to-face combination. Please contact the technical center of DPI if larger inclination angles are required.

3. Tolerance and clearance

Taper roller bearings with different kinds of tolerance grades can be manufactured as required. Customers can adjust the clearances of single row-taper roller bearings at the time of mounting as required. The radial clearance of Double row taper roller bearings can be the antecedent tolerance and clearance section according to customer requirements. Customers can adjust clearance according to related procedures during as required.

4. Dynamic equivalent radial load

Single row taper roller bearing:
Pr = Fr (when Fa/Fr>e)
Pr = 0.4Fr +YFa (when Fa/Fr>e)
Single row taper roller bearings (principal dimensions may be different) are used in pairs, the additional axial force caused by radial load must be taken into account while calculating the dynamic equivalent of the bearing. The axial load magnitude of the bearing is related to its installation configuration mode and the direction of the applied axial load.

The additional axial force of single-row taper roller bearings can be approximately calculated according to the following formula:
S= Fr/2Y
5. Static equivalent radial load
Single row taper roller bearing
P0r=Fr+Y0Fa if P0r<Fr adopt P0r = F
Fr and Fa both refer to the total load applied to single row and double row bearings.
See the bearing dimension table for the calculating coefficients e,Y,Y1,Y2, and Y0.

6. Minimal radial load

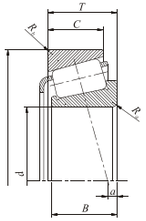
In order to prevent the rolling between roller and raceway caused by inertial force of roller and retainer during the high speed running of the bearing, the bearing must carry certain load, and its minimum value can be estimated according to the following formula:

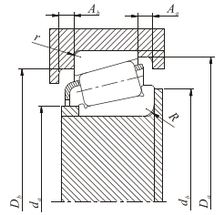
Frmin = Cr
In the equations:
Frmin:
Minimal radial load KN
Cr:
Basic dynamic load rating KN

06 | Tapered Roller Bearing

Single row taper roller bearing

Metric Series





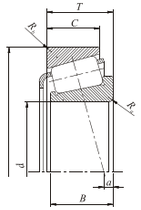
d 15~32mm

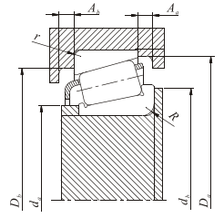
Main Dimension (mm)							Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.		Mounting dimensions (mm)								Load center mm	Constant	Axial load coefficient		Weight
					r (min)														Inner race	Outer Ring					
d	D	T	B	C	Inner race	Outer Ring	C_r	C_{0r}	Grease Lubrication	Oil Lubrication			d_a Min	d_b Max	D_a Max	D_b Min	S_a Min	S_b Min	r_a Max		a	e	Y_1	Y_0	(kg)
15	35	11.75	11	10	0.6	0.6	14.8	13.2	11000	15000	**30202**		23	19	30	33	2	1.5	0.6	0.6	8.2	0.32	1.9	1.0	0.056
	42	14.25	13	11	1	1	23.6	21.1	9500	13000	**30302**		24	22	36	38.5	2	3	1	1	9.5	0.29	2.1	1.2	0.096
17	40	13.25	12	11	1	1	20.1	19.9	9500	13000	**30203**		26	23	34	37.5	2	2	1	1	9.7	0.35	1.7	0.96	0.079
	40	17.25	16	14	1	1	22.7	23.3	9500	13000	**32203**		26	22	34	37.5	2	3	1	1	11.0	0.29	2.1	1.1	0.105
	47	15.25	14	12	1	1	29.2	26.7	8500	12000	**30303**		26	24	41	43	2	3	1	1	10.4	0.29	2.1	1.2	0.133
	47	20.25	19	16	1	1	36.6	35.9	8500	11000	**32303**		23	24	41	43	2	4	1	1	12.2	0.29	2.1	1.1	0.174
20	42	15	15	12	0.6	0.6	24.6	27.4	9000	12000	**32004**		28	24	37	40	3	3	0.6	0.6	10.6	0.37	1.6	0.88	0.102
	47	15.25	14	12	1	1	27.9	28.5	8000	11000	**30204**		29	27	41	44	2	3	1	1	11.0	0.35	1.7	0.96	0.124
	47	19.25	18	15	1	1	31.5	33.5	8000	10000	**32204**		29	26	41	44	2	4	1	1	12.7	0.35	1.7	0.95	0.158
	52	16.25	15	13	1.5	1.5	35	47.5	7500	10000	**30304**		31	27	44	47.5	2	3	2.0	1.5	11.6	0.30	2	1.1	0.171
	52	22.25	21	18	1.5	1.5	45.5	29.4	8000	11000	**32304**		33	26	43	48	3	4	1.5	1.5	13.9	0.30	2	1.1	0.204
22	44	15	15	11.5	0.6	0.6	25.6	30.5	8500	11000	**320/22**		30	27	39	42	3	3.5	0.6	0.6	11.1	0.40	1.5	0.83	0.103
	50	15.25	14	12	1	1	29.2	40.5	7500	10000	**302/22**		31	29	44	47	2	3	1	1	11.6	0.37	1.6	0.9	0.139
	50	19.25	18	15	1	1	36.5	33	7500	11000	**322/22**		31	28	44	47	2	4	1	1	13.0	0.49	1.6	0.89	0.180
25	47	15	15	11.5	0.6	0.6	27.4	38	8300	11000	**32005**		33	30	42	45	3	3.5	0.6	0.6	11.8	0.43	1.4	0.77	0.118
	47	17	17	14	0.6	0.6	31	35	8000	11000	**33005**		33	29	42	44	3	3	0.6	0.6	11.0	0.29	2.1	1.1	0.131
	52	16.25	15	13	1	1	32	43.5	7000	9000	**30205**		34	31	46	48.5	2	3	1	1	12.7	0.38	1.6	0.88	0.159
	52	19.25	18	15	1	1	38.5	56.5	7000	10000	**32205**		34	30	46	49	2	4	1	1	13.7	0.39	1.5	0.85	0.186
	52	22	22	18	1	1	47.5	56.5	7900	10000	**33205**		34	29	46	49.5	4	4	1	1	14.1	0.35	1.7	0.94	0.225
	62	18.25	17	15	1.5	1.5	47.5	46	6300	8500	**30305**		36	34	54	57	2	3	1.5	1.5	13.2	0.30	2	1.1	0.271
	62	18.25	17	13	1.5	1.5	38	40	5700	8000	**31305**		34	32	47	59	3	5	1.5	1.5	19.1	0.81	0.74	0.41	0.260
	62	25.25	24	20	1.5	1.5	62.5	66	6300	8000	**32305**		38	32	53	59	3	5	1.5	1.5	15.6	0.30	2	1.1	0.365
28	52	16	16	12	1	1	32	39	7100	9500	**320/28**		37	33	46	50	3	4	1	1	12.8	0.43	1.4	0.77	0.146
	58	17.25	16	14	1	1	39.5	41.5	6300	9000	**302/28**		37	34	52	55	2	3	1	1	13.2	0.35	1.7	0.93	0.203
	68	19.75	18	15	1.5	1.5	55	55.5	6000	8000	**303/28**		39	37	59	61	2	4.5	1.5	1.5	14.5	0.31	1.9	1.1	0.341
30	55	17	17	13	1	1	36	44.5	6700	9000	**32006**		39	35	49	53	3	4	1	1	13.5	0.43	1.4	0.77	0.170
	62	17.25	16	14	1	1	43	47.5	6000	8000	**30206**		39	37	56	58	2	3	1	1	13.9	0.38	1.6	0.88	0.245
	62	21.5	20	17	1	1	52	60	6000	8500	**32206**		39	36	56	58.5	2	4	1	1	15.4	0.38	1.6	0.88	0.285
	62	25	25	19.5	1	1	66.5	79.5	6000	8000	**33206**		39	35	56	59.5	5	5.5	1	1	16.1	0.34	1.8	0.97	0.355
	72	20.75	19	16	1.5	1.5	59.5	60	5300	7500	**30306**		41	40	63	66	3	4.5	1.5	1.5	15.1	0.32	1.9	1	0.408
	72	20.75	19	14	1.5	1.5	47.3	50	5000	6700	**31306**		40	37	55	68	3	6.5	1.5	1.5	22.3	0.81	0.74	0.41	0.378
	72	28.75	27	23	1.5	1.5	80	88.5	5600	7000	**32306**		43	36	63	68	3	5.5	1.5	1.5	18.0	0.32	1.6	0.88	0.575
32	58	17	17	13	1	1	37.5	47	6000	8500	**320/32**		41	37	52	55	3	4	1	1	14.2	0.45	1.3	0.73	0.191
	65	18.25	17	15	1	1	48.5	54	5600	8000	**302/32**		41	39	59	61	3	3	1	1	14.7	0.37	1.6	0.88	0.275
	65	22.25	21	18	1	1	56	65	6000	8000	**322/32**		41	38	59	61	3	4	1	1	15.9	0.37	1.6	0.88	0.336
	65	26	26	20.5	1	1	70	86.5	5600	8000	**332/32**		41	38	59	62	5	5.5	1	1	17.0	0.35	1.7	0.95	0.400

Estd. 1983 DPI BEARINGS

Single row taper roller bearing

Metric Series





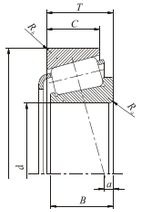
d 35~55mm

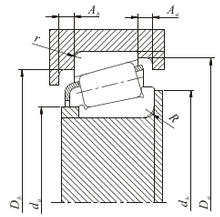
d	Main Dimension (mm) D	T	B	C	r (min) Inner race	r (min) Outer Ring	Basic Load Rating (kN) C_r	C_{0r}	Limit Speed (r/min) Grease Lubrication	Oil Lubrication	Bearing No.		Mounting dimensions (mm) d_a Min	d_b Max	D_a Max	D_b Min	S_a Min	S_b Min	r_a Max Inner race	r_a Max Outer Ring	Load center mm a	Constant e	Axial load coefficient Y_1	Y_0	Weight (kg)
35	62	18	18	14	1	1	43.5	55.5	5600	8000	**32007**		44	40	56	60	4	4	1	1	15.0	0.45	1.3	0.73	0.223
	62	21	21	17	1	1	49	65	5600	8000	**33007**		44	40	56	59	4	4	1	1	14.1	0.31	2	1.1	0.267
	72	18.25	17	15	1.5	1.5	54	59.5	5300	7100	**30207**		46	43	63	67	3	3	1.5	1.5	15.0	0.38	1.6	0.88	0.345
	72	24.25	23	19	1.5	1.5	70.5	83.5	5300	7100	**32207**		46	42	63	67.5	3	5	1.5	1.5	17.9	0.38	1.6	0.88	0.458
	72	28	28	22	1.5	1.5	86.5	108	5300	7100	**33207**		46	41	63	68	5	6	1.5	1.5	18.3	0.35	1.7	0.93	0.540
	80	22.75	21	18	2	1.5	76	79	4800	6700	**30307**		47	45	71	74	3	4.5	2	1.5	16.7	0.32	1.9	1	0.513
	80	22.75	21	15	2	1.5	62	68	4300	6000	**31307**		51	44	71	77	3	7.5	2	1.5	25.2	0.83	0.73	0.4	0.520
	80	32.75	31	25	2	1.5	99	111	5000	6700	**32307**		49	43	71	74	3	7.5	2	1.5	20.7	0.32	1.9	1	0.760
40	62	15	15	12	0.6	0.6	34	47	5600	7500	**32908**		48	44	57	59	3	3	0.6	0.6	11.5	0.29	2.1	1.1	0.163
	68	19	19	14.5	1	1	52.5	71	5300	7100	**32008**		49	45	62	65.5	4	4.5	1	1	15.0	0.38	1.6	0.87	0.280
	80	19.75	18	16	1.5	1.5	63.5	70	4800	6300	**30208**		51	48	71	7	3	3.5	1.5	1.5	16.6	0.38	1.6	0.88	0.438
	80	24.75	23	19	1.5	1.5	74	90.5	4500	6300	**32208**		51	47	71	76	3	5.5	1.5	1.5	18.9	0.38	1.6	0.88	0.559
	90	25.25	23	20	2	1.5	90.5	101	4300	5600	**30308**		52	52	81	82	3	5	2	1.5	19.5	0.35	1.7	0.96	0.761
	90	25.25	23	17	2	1.5	80	89.5	4000	5300	**31308**		56	50	81	87	3	8	2	1.5	20.8	0.36	1.7	0.9	0.726
	90	35.25	33	27	2	1.5	120	145	4500	6000	**32308**		54	50	81	82	3	8	2	1.5	23.4	0.35	1.7	0.96	1.045
45	68	15	15	12	0.6	0.6	34.5	50.5	5000	6700	**32909**		53	50	63	64	3	3	0.6	0.6	12.3	0.32	1.9	7	0.187
	75	20	20	15.5	1	1	60	83	4500	6300	**32009**		54	51	69	72	4	4.5	1	1	16.6	0.39	1.5	0.84	1.354
	85	20.75	19	16	1.5	1.5	68.5	79.5	4300	6000	**30209**		56	53	76	80	3	4.5	1.5	1.5	18.3	0.41	1.5	0.81	0.506
	85	24.75	23	19	1.5	1.5	83	102	4300	6000	**32209**		56	53	76	81	3	5.5	1.5	1.5	20.1	0.41	1.5	0.81	0.602
	100	27.25	25	22	2	1.5	112	127	3800	5300	**30309**		57	58	91	93	3	5	2	1.5	21.1	0.35	1.7	0.96	1.008
	100	27.25	25	18	2	1.5	95.5	109	4000	5000	**31309**		61	57	91	96	3	9	2	1.5	31.5	0.83	0.73	0.40	0.958
	100	38.25	36	30	2	1.5	144	177	3800	5300	**32309**		59	56	91	93	3	8	2	1.5	25.0	0.35	1.7	0.96	1.417
50	72	15	15	12	0.6	0.6	36	54	4500	6300	**32910**		58	54	67	69	3	3	0.6	0.6	13.5	0.34	1.8	0.97	0.192
	80	20	20	15.5	1	1	61	87	4300	6000	**32010**		59	56	74	77	4	4.5	1	1	17.9	0.42	1.4	0.78	0.310
	90	21.75	20	17	1.5	1.5	76	91.5	4000	5300	**30210**		61	58	81	85	3	4.5	1.5	1.5	19.6	0.42	1.4	0.79	0.592
	90	24.75	23	19	1.5	1.5	87.5	109	4000	5300	**32210**		61	57	81	86	3	5.5	1.5	1.5	21.0	0.42	1.4	0.79	0.618
	110	29.25	27	23	2.5	2	130	148	3400	4800	**30310**		65	65	100	102	3	6	2	2	23.1	0.35	1.7	0.96	1.250
	110	29.25	27	19	2.5	2	106	120	3800	4800	**31310**		62	60	100	104	4	10	2	2	34.2	0.83	0.73	0.40	1.254
	110	42.25	40	33	2.5	2	176	220	3600	4800	**32310**		68	62	100	102	3	9	2	2	27.9	0.35	1.7	0.96	1.885
55	90	23	23	17.5	1.5	1.5	81.5	117	3800	5300	**32011**		66	62	81	86	4	5.5	1.5	1.5	19.7	0.41	1.5	0.81	0.530
	100	22.75	21	18	2	1.5	94.5	113	3600	5000	**30211**		67	64	91	94	4	4.5	2	1.5	20.9	0.41	1.5	0.81	0.739
	100	26.75	25	21	2	1.5	110	137	3600	5000	**32211**		67	63	91	95	4	5.5	2	1.5	22.7	0.41	1.5	0.81	0.915
	120	31.5	29	25	2.5	2	150	171	3200	4300	**30311**		70	71	110	111	4	6.5	2	2	34.6	0.35	1.7	0.96	0.628
	120	31.5	29	21	2.5	2	121	137	3400	4300	**31311**		68	65	110	113	4	10.5	2	2	37.0	0.83	0.73	0.40	1.576
	120	45.5	43	35	2.5	2	204	258	3200	4300	**32311**		73	67	110	111	4	10.5	2	2	29.9	0.35	1.7	0.96	2.390

Estd. 1983 DPI BEARINGS

Single row taper roller bearing

Metric Series





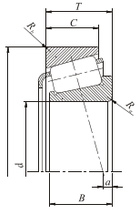
d 60~85mm

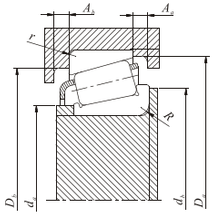
Main Dimension (mm)							Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.		Mounting dimensions (mm)								Load center mm	Constant	Axial load coefficient		Weight
					r (min)														Inner race	Outer Ring					
d	*D*	*T*	*B*	*C*	*Inner race*	*Outer Ring*	C_r	C_{0r}	*Grease Lubrication*	*Oil Lubrication*			d_a *Min*	d_b *Max*	D_a *Max*	D_b *Min*	S_a *Min*	S_b *Min*	r_a *Max*	r_a *Max*	*a*	*e*	Y_1	Y_0	*(kg)*
60	95	23	23	17.5	1.5	1.5	85.5	127	3600	5000	**32012**		71	66	86	91	4	5.5	1.5	1.5	20.9	0.43	1.4	0.77	0.560
	110	23.75	22	19	2	1.5	104	123	3400	4500	**30212**		72	69	101	103	4	4.5	2	1.5	22.0	0.41	1.5	0.81	0.934
	110	29.75	28	24	2	1.5	131	167	3400	4500	**32212**		72	68	101	104	4	5.5	2	1.5	24.1	0.41	1.5	0.81	1.197
	130	33.5	31	26	3	2.5	174	201	300	4000	**30312**		78	77	118	120	4	7.5	2.5	2	26.0	0.35	1.7	0.96	1.940
	130	33.5	31	22	3	2.5	145	166	2600	3600	**31312**		84	74	118	125	4	11.5	2.5	2	40.3	0.83	0.73	0.40	1.896
	130	48.5	46	37	3	2.5	233	295	3000	4000	**32312**		81	74	118	120	4	11.5	2.5	2	31.4	0.35	1.7	0.96	2.880
65	100	23	23	17.5	1.5	1.5	86.5	132	3400	4500	**32013**		76	71	91	97	4	5.5	1.5	1.5	22.4	0.46	1.3	0.72	0.630
	120	24.75	23	20	2	1.5	122	151	3000	4000	**30213**		77	78	111	113	4	4.5	2	1.5	23.8	0.41	1.5	0.81	1.132
	120	32.75	31	27	2	1.5	157	202	3000	4000	**32213**		77	75	111	115	4	5.5	2	1.5	27.1	0.41	1.5	0.81	1.580
	140	36	33	28	3	2.5	200	233	2600	3600	**30313**		83	83	128	130	4	8	2.5	2	27.9	0.35	1.7	0.96	2.629
	140	36	33	23	3	2.5	173	205	2800	3600	**31313**		89	80	128	133	4	13	2.5	2	43.2	0.83	0.73	0.4	2.426
	140	51	48	39	3	2.5	267	340	2800	3800	**32313**		86	80	128	130	4	12	2.5	2	34.0	0.35	1.7	0.96	3.609
70	110	25	25	19	1.5	1.5	104	158	3200	4300	**32014**		81	77	101	105	5	6	1.5	1.5	23.7	0.43	1.4	0.76	0.850
	125	26.25	24	21	2	1.5	132	163	2800	4000	**30214**		82	81	116	118	4	5	2	1.5	25.6	0.42	1.4	0.79	1.296
	125	33.25	31	27	2	1.5	157	205	2800	4000	**32214**		82	80	116	119	4	6	2	1.5	28.6	0.42	1.4	0.79	1.620
	150	38	35	30	3	2.5	227	268	2400	3400	**30314**		88	89	138	140	4	8	2.5	2	28.6	0.35	1.7	0.96	3.170
	150	38	35	25	3	2.5	192	229	2600	3400	**31314**		94	85	138	142	4	13	2.5	2	45.7	0.83	0.73	0.4	2.935
	150	54	51	42	3	2.5	300	390	2600	3400	**32314**		91	86	138	140	4	12	2.5	2	36.0	0.35	1.7	0.96	4.346
75	115	25	25	19	1.5	1.5	109	171	3000	4000	**32015**		86	82	106	110	5	6	1.5	1.5	25.1	0.46	1.3	0.72	0.880
	130	27.25	25	22	2	1.5	143	182	2800	3800	**30215**		87	85	121	124	4	5	2	1.5	27.0	0.44	1.4	0.76	1.384
	130	33.25	31	27	2	1.5	143	182	2800	3800	**32215**		87	84	121	125	4	6	2	1.5	29.8	0.44	1.4	0.76	1.765
	160	40	37	31	3	2.5	253	300	2400	3200	**30315**		93	95	148	149	4	9	2.5	2	31.8	0.35	1.7	0.96	3.542
	160	40	37	26	3	2.5	211	251	2200	3000	**31315**		99	91	148	152	6	14	2.5	2	48.7	0.83	0.73	0.4	3.469
	160	58	55	45	3	2.5	340	445	2400	3200	**32315**		96	91	148	149	4	13	2.5	2	38.9	0.35	1.7	0.96	5.316
80	125	29	29	22	1.5	1.5	140	222	2800	3600	**32016**		91	89	116	120	6	7	1.5	1.5	26.9	0.42	1.4	0.78	1.180
	140	28.25	26	22	2.5	2	157	195	2600	3400	**30216**		95	91	130	132	4	6	2	2	28.1	0.42	1.4	0.79	1.650
	140	35.25	33	28	2.5	2	192	254	2600	3400	**32216**		95	90	130	134	4	7	2	2	30.6	0.42	1.4	0.79	2.162
	170	42.5	39	33	3	2.5	276	330	2200	3000	**30316**		98	102	158	159	4	9.5	2.5	2	34.0	0.35	1.7	0.96	4.486
	170	42.5	39	27	3	2.5	235	285	2000	2800	**31316**		104	97	158	159	6	15.5	2.5	2	51.8	0.83	0.73	0.4	4.065
	170	61.5	58	48	3	2.5	385	505	2200	3000	**32316**		101	98	158	159	4	13.5	2.5	2	41.3	0.35	1.7	0.96	6.390
85	130	29	29	22	1.5	1.5	143	231	2600	3600	**32017**		96	94	121	125	6	7	1.5	1.5	28.2	0.44	1.4	0.75	1.250
	150	30.5	28	24	2.5	2	184	233	2400	3200	**30217**		100	97	140	141	5	6.5	2	2	30.3	0.42	1.4	0.79	2.060
	150	38.5	36	30	2.5	2	210	277	2400	3200	**32217**		100	96	140	142	5	8.5	2	2	33.8	0.42	1.4	0.79	2.670
	180	44.5	41	34	4	3	310	375	2000	2800	**30317**		106	108	166	167	5	10.5	3	2.5	35.7	0.35	1.7	0.96	5.305
	180	44.5	41	28	4	3	261	315	2000	2600	**31317**		113	103	166	169	6	16.5	3	2.5	55.2	0.83	1.74	0.96	4.881
	180	63.5	60	49	4	3	410	535	2000	2800	**32317**		110	104	166	167	5	14.5	3	2.5	43.5	0.35	1.7	0.96	7.302

Estd. 1983 DPI BEARINGS

Single row taper roller bearing

Metric Series





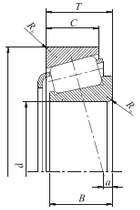
d 90~120mm

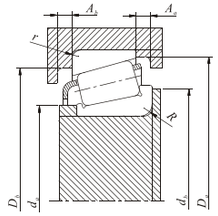
Main Dimension (mm)							Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.		Mounting dimensions (mm)								Load center mm	Constant	Axial load coefficient		Weight
					r (min)														Inner race	Outer Ring					
d	*D*	*T*	*B*	*C*	*Inner race*	*Outer Ring*	C_r	C_{0r}	*Grease Lubrication*	*Oil Lubrication*			d_a Min	d_b Max	D_a Max	D_b Min	S_a Min	S_b Min	r_a Max		*a*	*e*	Y_1	Y_0	*(kg)*
90	140	32	32	24	2	1.5	170	273	2400	3200	**32018**		102	99	131	134	6	8	2	1.5	29.7	0.42	1.4	0.78	1.700
	160	32.5	30	26	2.5	2	201	256	2200	3000	**30218**		105	103	150	150	5	6.5	2	2	31.7	0.42	1.4	0.79	2.558
	160	42.5	40	34	2.5	2	256	350	2200	3000	**32218**		105	102	150	152	5	8.5	2	2	36.1	0.42	1.4	0.79	3.265
	190	46.5	43	36	4	3	305	360	1900	2600	**30318**		111	115	176	177	5	10.5	3	2.5	37.6	0.35	1.7	0.95	6.144
	190	46.5	43	30	4	3	265	315	1800	2400	**31318**		118	110	176	179	6	16.5	3	2.5	58.5	0.83	0.73	0.4	5.511
	190	67.5	64	53	4	3	450	590	2000	2600	**32318**		115	109	176	177	5	14.5	3	2.5	46.5	0.35	1.7	0.96	8.568
95	145	32	32	24	2	1.5	173	283	2400	3200	**32019**		107	104	136	140	6	8	2	1.5	31.2	0.44	1.4	0.75	1.700
	170	34.5	32	27	3	2.5	223	286	2200	2800	**30219**		113	110	158	159	5	7.5	2.5	2	33.7	0.42	1.4	0.79	3.269
	170	45.5	43	37	3	2.5	289	400	2200	2800	**32219**		113	108	158	161	5	8.5	2.5	2	39.3	0.42	1.4	0.79	4.216
	200	49.5	45	38	4	3	335	400	1900	2400	**30319**		116	119	186	184	5	11.5	3	2.5	39.7	0.35	1.7	0.95	6.546
	200	49.5	45	32	4	3	310	375	1800	2400	**31319**		123	115	186	187	6	17.5	3	2.5	61.9	0.83	0.73	0.4	6.635
	200	71.5	67	55	4	3	460	600	1900	2400	**32319**		120	114	186	184	5	16.5	3	2.5	48.5	0.35	1.7	0.95	9.645
100	150	32	32	24	2	1.5	176	294	2200	3000	**32020**		112	109	141	144	6	8	2	1.5	32.5	0.46	1.3	0.72	1.947
	180	37	34	29	3	2.5	255	330	2000	2600	**30220**		118	116	168	168	5	8	2.5	2	36.1	0.42	1.4	0.79	3.976
	180	49	46	39	3	2.5	325	450	2000	2600	**32220**		118	115	168	171	5	10	2.5	2	41.5	0.42	1.4	0.79	5.213
	215	51.5	47	39	4	3	365	435	1700	2400	**30320**		121	128	201	196	5	12.5	3	2.5	41.7	0.35	1.7	0.95	8.690
	215	56.5	51	35	4	3	350	435	1600	2000	**31320**		114	121	201	202	7	21.5	3	2.5	69.0	0.83	0.73	0.4	8.600
	215	77.5	73	60	4	3	565	755	1700	2400	**32320**		125	125	201	200	5	17.5	3	2.5	53.2	0.35	1.7	0.96	12.96
105	160	35	35	26	2.5	2	204	340	2000	2800	**32021**		120	115	150	154	6	9	2	2	34.3	0.44	1.4	0.74	2.500
	190	39	36	30	3	2.5	280	365	1900	2600	**30221**		123	123	178	177	6	9	2.5	2	38.1	0.42	1.4	0.79	4.510
	190	53	50	43	3	2.5	360	510	1900	2600	**32221**		123	120	178	180	5	10	2.5	2	44.8	0.42	1.4	0.79	6.260
	225	53.5	49	41	4	3	395	470	1600	2200	**30321**		126	134	211	206	6	12.5	3	2.5	43.5	0.35	1.7	0.95	9.120
	225	58	53	36	4	3	380	470	1700	2300	**31321**		119	126	211	211	7	22	3	2.5	71.5	0.83	0.73	0.4	9.680
	225	81.5	77	63	4	3	585	780	1700	2200	**32321**		130	129	211	209	6	18.5	3	2.5	55.0	0.35	1.7	0.95	14.21
110	170	38	38	29	2.5	2	236	390	2000	2600	**32022**		125	121	160	163	7	9	2	2	35.9	0.43	1.4	0.77	3.100
	200	41	38	32	3	2.5	315	420	1800	2400	**30222**		128	129	188	187	6	9	2.5	2	40.1	0.42	1.4	0.79	5.270
	200	56	53	46	3	2.5	400	565	1800	2400	**32222**		128	127	188	190	5	10	2.5	2	47.2	0.42	1.4	0.79	7.360
	240	54.5	50	42	4	3	485	595	1500	2000	**30322**		131	143	226	220	6	12.5	3	2.5	45.1	0.35	1.7	0.96	11.45
	240	63	57	38	4	3	430	563	1400	1900	**31322**		124	135	226	224	7	25	3	2.5	76.0	0.83	0.73	0.4	12.20
	240	84.5	80	65	4	3	675	910	1500	2000	**32322**		135	139	226	222	6	19.5	3	2.5	58.5	0.35	1.7	0.96	18.78
120	180	38	38	29	2.5	2	242	405	1800	2400	**32024**		135	131	170	173	7	9	2	2	39.7	0.46	1.3	0.72	3.100
	215	43.5	40	34	3	2.5	335	450	1600	2200	**30224**		138	141	203	201	6	9.5	2.5	2	44.4	0.44	1.4	0.76	6.125
	215	61.5	58	50	3	2.5	440	635	1600	2200	**32224**		138	137	203	204	6	11.5	2.5	2	52.0	0.44	1.4	0.76	9.169
	260	59.5	55	46	4	3	535	655	1400	1900	**30324**		141	154	246	237	6	13.5	3	2.5	50.0	0.35	1.7	0.96	13.7
	260	68	62	42	4	3	526	665	1300	1800	**31324**		134	145	246	244	9	26	3	2.5	82.5	0.83	0.73	0.4	15.4
	260	90.5	86	69	4	3	770	1060	1400	1900	**32324**		145	149	246	239	6	21.5	3	2.5	62.4	0.35	1.7	0.96	21.7

06 | Tapered Roller Bearing

Single row taper roller bearing

Metric Series





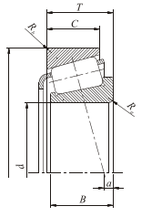
d 130~200mm

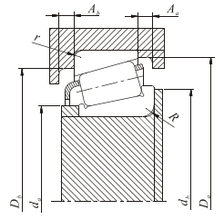
Main Dimension (mm)							Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.		Mounting dimensions (mm)								Load center mm	Constant	Axial load coefficient		Weight
					r (min)														Inner race	Outer Ring					
d	D	T	B	C	Inner race	Outer Ring	C_r	C_{0r}	Grease Lubrication	Oil Lubrication			d_a Min	d_b Max	D_a Max	D_b Min	S_a Min	S_b Min	r_a Max		a	e	Y_1	Y_0	(kg)
130	200	45	45	34	2.5	2	320	535	1600	2200	**32026**		145	144	190	192	8	11	2	2	43.9	0.43	1.4	0.76	5.06
	230	43.75	40	34	4	3	375	505	1500	2000	**30226**		151	151	216	217	7	9.5	3	2.5	45.8	0.44	1.4	0.76	7.24
	230	67.75	64	54	4	3	530	790	1500	2000	**32226**		151	147	216	219	7	13.5	3	2.5	56.9	0.44	1.4	0.76	11.37
	280	63.75	58	49	5	4	545	675	1300	1800	**30326**		157	168	262	255	8	14.5	4	3	53.9	0.36	1.7	0.92	17.1
	280	72	66	44	5	4	589	748	1200	1600	**31326**		148	152	262	261	9	28	4	3	87.5	0.83	0.73	0.4	18.9
	280	98.75	93	78	5	4	830	1150	1300	1800	**32326**		162	165	262	263	8	20.5	4	3	69.2	0.36	1.7	0.92	26.6
140	210	45	45	34	2.5	2	325	555	1600	2200	**32028**		155	152	200	202	8	11	2	2	46.6	0.46	1.3	0.72	5.21
	250	45.75	42	36	4	3	390	515	1400	1900	**30228**		161	164	236	234	7	9.5	3	2.5	48.9	0.44	1.4	0.76	8.892
	250	71.75	68	58	4	3	610	915	1400	1900	**32228**		161	159	236	238	9	13.5	3	2.5	58.9	0.40	1.5	0.82	14.68
	300	67.75	62	53	5	4	600	740	1200	1600	**30328**		167	180	282	272	9	14.5	4	3	57.4	0.36	1.7	0.92	21.7
	300	77	70	47	5	4	674	865	1100	1500	**31328**		158	165	282	280	9	30	4	3	94.0	0.83	0.73	0.4	23.3
	300	107.75	102	85	5	4	985	1440	1200	1600	**32328**		172	177	282	281	9	22.5	4	3	76.4	0.37	1.6	0.88	33.9
150	225	48	48	36	3	2.5	375	650	1400	2000	**32030**		168	164	213	216	8	12	2.5	2	49.8	0.46	1.3	0.72	6.2
	270	49	45	38	4	3	435	570	1300	1700	**30230**		171	176	256	251	7	11	3	2.5	50.2	0.43	1.4	0.77	10.3
	270	77	73	60	4	3	595	900	1300	1700	**32230**		171	177	256	254	8	17	3	2.5	64.0	0.40	1.5	0.82	17.4
	320	72	65	55	5	4	690	860	1100	1500	**30330**		177	193	302	292	8	17	4	3	61.4	0.36	1.7	0.92	24.4
	320	82	75	50	5	4	763	898	980	1400	**31330**		172	179	302	301	9	27	4	3	100.0	0.83	0.73	0.4	28.0
	320	114	108	90	5	4	1120	1700	1100	1500	**32330**		182	191	302	297	8	24	4	3	81.5	0.37	1.6	0.88	41.4
160	240	51	51	38	3	2.5	425	750	1300	1800	**32032**		178	175	228	231	8	13	2.5	2	53.0	0.46	1.3	0.72	8.0
	290	52	48	40	4	3	470	610	1200	1600	**30232**		181	192	276	272	8	12	3	2.5	55.0	0.43	1.4	0.77	12.9
	290	84	80	67	4	3	725	1120	1200	1600	**32232**		181	190	276	275	10	17	3	2.5	70.1	0.40	1.5	0.82	21.1
	340	75	68	58	5	4	765	960	1000	1400	**30332**		187	205	322	311	10	17	4	3	64.6	0.36	1.7	0.92	33.5
	340	121	114	95	5	4	1210	1770	1000	1400	**32332**		192	202	322	319	10	26	4	3	87.1	0.37	1.6	0.88	47.9
170	260	57	57	43	3	2.5	505	890	1200	1700	**32304**		188	187	248	249	10	14	2.5	2	56.6	0.44	1.4	0.74	11.0
	310	57	52	43	5	4	525	690	1100	1500	**30234**		197	203	292	288	8	14	4	3	59.8	0.43	1.4	0.77	16.1
	310	91	86	71	5	4	835	1320	1100	1500	**32234**		197	201	292	293	10	20	4	3	73.9	0.40	1.5	0.82	28.5
	360	80	72	62	5	4	845	1080	950	1300	**30334**		197	221	342	332	10	18	4	3	70.1	0.37	1.6	0.90	33.4
	360	127	120	100	5	4	1370	2050	1000	1300	**32334**		202	213	342	337	10	27	4	3	91.3	0.37	1.6	0.88	56.8
180	280	64	64	48	3	2.5	640	1130	1200	1600	**32036**		198	199	268	267	10	16	2.5	2	60.4	0.42	1.42	0.78	14.1
	320	57	52	43	5	4	520	695	1100	1400	**30236**		207	213	302	297	9	14	4	3	62.1	0.44	1.4	0.74	18.1
	320	91	86	71	5	4	875	1380	1000	1400	**32236**		207	211	302	305	10	20	4	3	75.2	0.40	1.5	0.82	28.2
	380	83	75	64	5	4	935	1230	940	1300	**30336**		207	233	362	345	10	19	4	3	72.4	0.36	1.7	0.92	39.7
	380	134	126	106	5	4	1520	2290	950	1300	**32336**		212	225	362	353	10	28	4	3	96.6	0.37	1.6	0.88	67
190	340	60	55	46	5	4	580	790	1300	1300	**30238**		217	228	322	316	9	14	4	3	62.7	0.40	1.5	0.82	21.7
	340	97	92	75	5	4	980	1550	1000	1300	**32238**		217	223	322	323	11	22	4	3	79.0	0.40	1.5	0.82	35.7
	400	86	78	65	6	5	1010	1340	850	1200	**30338**		223	248	378	366	11	21	5	4	76.1	0.36	1.7	0.92	46.2
	400	140	132	109	6	5	1660	2580	850	1200	**32338**		229	243	378	375	11	31	5	4	102.7	0.73	1.6	0.88	76.6
200	360	64	58	48	5	4	645	890	900	1300	**30240**		227	242	342	334	10	16	4	3	65.5	0.40	1.5	0.82	25.7
	360	104	98	82	5	4	1090	1750	950	1300	**32240**		227	233	342	338	11	22	4	3	85.0	0.40	1.5	0.82	44.7
	420	89	80	67	6	5	1030	1390	850	1200	**30340**		233	253	398	368	11	22	5	4	81.4	0.37	1.6	0.88	53.5
	420	146	138	115	6	5	1820	2870	800	1100	**32340**		239	253	398	392	11	31	5	4	106.7	0.37	1.6	0.88	91

Estd. 1983 DPI BEARINGS

Single row taper roller bearing

Inch Series





***d* 15.875~25.400mm**

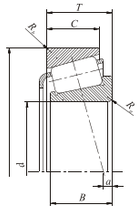
Main Dimension (mm)							Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.			Load center mm	Constant	Axial load coefficient		Mounting dimensions (mm)								Weight (kg)
																		Shaft			Bearing housing			Retainer		
d	D	T	B	C	(R_a) min	(R_b) min	C_1	C_{0r}	Grease Lubrication	Oil Lubrication	Cone	Cup		a 1)	e	Y_1	Y_0	d_a	d_b	RMax	D_a	D_b	rMax	A_a	A_b	
15.875	42.862	14.288	14.288	9.525	1.5	1.5	17.4	17.4	10,000	14,000	**11590**	**11520**		1.3	0.70	0.85	0.47	22.5	24.5	1.5	39.5	34.5	1.5	4.5	2.0	0.10
16.000	47.000	21.000	21.000	16.000	1.0	1.0	37.1	39.3	9,800	13,000	**HM81649**	**HM81610**		6.1	0.55	1.10	0.60	23.0	27.5	1.0	43.0	37.5	1.0	5.0	3.0	0.18
17.462	39.878	13.843	14.605	10.688	1.3	1.3	22.9	23.4	11,000	14,000	**LM11749**	**LM11710**		5.1	0.29	2.00	1.10	21.5	23.0	1.3	37.0	34.0	1.3	4.0	3.0	0.08
19.050	45.237	15.494	16.637	12.065	1.3	1.3	30.6	32.0	9,400	13,000	**LM11949**	**LM11910**		5.6	0.30	2.00	1.10	23.5	25.0	1.3	41.5	39.5	1.3	4.5	3.5	0.12
	49.225	19.845	21.539	14.288	1.3	1.3	39.7	40.5	8,900	12,000	**09078**	**09195**		9.1	0.27	2.26	1.24	24.0	25.5	1.3	44.5	42.0	1.3	4.5	4.0	0.18
	49.225	21.209	19.050	17.462	1.3	1.5	39.7	40.5	8,900	12,000	**09067**	**09196**		7.4	0.27	2.26	1.24	24.0	25.5	1.3	44.5	41.5	1.5	4.5	1.0	0.19
	53.975	22.225	21.839	15.875	1.5	2.3	43.0	42.5	8,400	11,000	**21075**	**21212**		5.8	0.59	1.02	0.56	26.0	31.5	1.5	50.0	43.0	2.3	4.5	4.0	0.24
20.000	50.005	13.495	14.260	9.525	1.5	1.0	27.0	29.6	7,900	11,000	**07079**	**07196**		2.8	0.40	1.49	0.82	26.0	27.5	1.5	47.0	44.5	5.0	4.0	1.5	0.14
20.625	49.225	19.845	21.539	14.288	1.5	1.3	39.7	40.5	8,000	11,000	**09081**	**09195**		9.1	0.27	2.26	1.24	25.5	27.5	1.5	44.5	42.0	1.3	4.5	4.0	0.17
21.986	45.237	17.526	18.288	13.970	1.3	1.3	40.8	43.5	8,600	12,000	**M12649**	**M12160**		6.4	0.28	2.16	1.18	25.5	29.0	1.3	46.0	44.0	1.3	4.5	3.5	0.16
	45.974	15.494	16.637	12.065	1.3	1.3	30.2	35.3	8,900	12,000	**LM12749**	**LM12710**		5.3	0.31	1.96	1.08	26.0	27.5	1.3	42.0	39.5	1.3	4.0	3.0	0.12
22.225	50.005	15.494	16.637	12.065	1.3	1.3	30.2	35.3	8,900	12,000	**LM12749**	**LM12711**		5.3	0.31	1.96	1.08	26.0	27.5	1.3	42.5	40.0	1.3	4.0	3.0	0.12
21.225	50.005	17.526	18.288	13.970	1.3	1.3	40.8	43.5	8,500	11,000	**M12648**	**M12610**		6.4	0.28	2.16	1.19	26.5	28.5	1.3	46.0	44.0	1.3	4.5	3.5	0.17
	52.388	19.638	20.168	14.288	1.5	1.5	44.3	48.3	8,000	11,000	**1380**	**1328**		7.6	0.29	2.05	1.13	27.0	29.5	1.5	48.5	45.0	1.5	5.0	3.5	0.20
	53.975	19.368	20.168	14.288	1.5	1.5	44.3	48.3	8,000	11,000	**1380**	**1329**		7.6	0.29	2.05	1.13	27.0	29.5	1.5	49.0	46.0	1.5	5.0	3.5	0.22
	56.896	19.368	19.837	15.875	1.3	1.3	42.0	45.3	7,600	10,000	**1755**	**1729**		6.9	0.31	1.95	1.07	27.5	29.0	1.3	51.0	49.0	1.3	4.0	3.5	0.24
	57.150	22.225	22.225	17.462	0.8	1.5	51.2	55.1	7,600	10,000	**1280**	**1220**		6.9	0.35	1.73	0.95	29.0	29.5	0.8	52.0	49.0	1.5	5.5	2.5	0.28
	66.421	23.812	25.433	19.050	1.5	1.3	71.0	81.7	6,500	8,700	**2684**	**2631**		9.4	0.25	2.36	1.30	29.0	31.5	1.5	60.0	58.0	1.3	6.0	4.5	0.46
22.606	47.000	15.500	15.500	12.000	1.5	1.0	27.5	33.0	8,700	12,000	**LM72489**	**LM72810**		3.0	0.47	1.27	0.70	28.0	30.0	1.5	44.0	40.5	1.0	4.0	2.0	0.12
23.812	50.292	14.224	14.732	10.688	1.5	1.3	27.8	32.9	7,800	10,000	**L44640**	**L44610**		3.3	0.37	1.60	0.88	28.5	30.5	1.5	47.0	44.5	1.3	4.0	2.5	0.12
	56.896	19.367	19.837	15.875	0.8	1.3	42.0	45.3	7,600	10,000	**1779**	**1729**		6.9	0.31	1.95	1.07	28.5	29.5	0.8	51.0	49.0	1.3	4.0	3.5	0.24
	65.088	22.225	21.463	15.875	1.5	1.5	50.6	55.8	5,600	7,900	**23092**	**23256**		2.3	0.73	0.82	0.45	34.5	38.5	1.5	63.0	53.0	1.5	4.0	3.5	0.37
24.981	50.005	13.495	14.260	9.525	1.5	1.0	27.0	29.6	7,900	11,000	**07098**	**07196**		2.8	0.40	1.49	0.82	29.0	31.0	1.5	47.0	44.5	1.0	5.0	4.0	0.11
	62.000	16.002	16.566	14.288	1.5	1.5	40.0	44.1	6,700	8,900	**17098**	**17244**		3.6	0.38	1.57	0.86	30.5	33.0	1.5	57.0	54.0	1.5	3.5	4.5	0.25
25.000	50.005	13.495	14.260	9.525	1.5	1.0	27.0	29.6	7,900	11,000	**07097**	**07196**		2.8	0.40	1.49	0.82	29.0	31.0	1.5	47.0	44.5	1.0	5.0	4.0	0.11
25.400	50.005	13.495	14.260	9.525	1.0	1.0	27.0	29.6	7,900	11,000	**07100**	**07196**		2.8	0.40	1.49	0.82	29.5	30.5	1.0	47.0	44.5	1.0	5.0	4.0	0.11
	50.005	13.495	14.260	9.525	1.5	1.0	27.0	29.6	7900	11000	**07100S**	**07196**		2.8	0.40	1.49	0.82	29.5	31.5	1.5	47.0	44.5	1.0	5.0	4.0	0.11
	50.292	14.224	14.732	10.668	1.3	1.3	27.8	32.9	7800	10000	**L44643**	**L44610**		3.3	0.37	1.60	0.88	30.0	32.0	1.3	47.0	44.5	1.3	4.0	2.5	0.12
	51.994	15.011	14.260	12.700	1.0	1.3	27.0	29.6	7900	11000	**07100**	**07204**		2.8	0.40	1.49	0.82	29.5	30.5	1.0	48.0	45.0	1.3	3.0	2.5	0.14
	58.738	19.050	19.355	15.080	1.2	1.2	44.8	50.2	7000	9300	**1986R**	**1932**		5.8	0.33	1.82	1.00	30.5	32.5	1.2	54.0	52.0	1.2	5.0	3.5	0.24
	59.530	23.368	23.114	18.288	0.8	1.5	53.8	63.3	7200	9600	**M84249**	**M84210**		5.1	0.55	1.10	0.60	32.5	36.0	0.8	56.0	49.5	1.5	5.5	3.0	0.32
	61.912	19.050	20.638	14.288	0.8	2.0	46.8	53.9	6400	8600	**15101**	**15243**		5.8	0.35	1.71	0.94	31.5	32.5	0.8	58.0	54.0	2.0	5.0	5.0	0.29
	62.000	19.050	20.638	14.288	3.5	1.3	46.8	53.9	6400	8600	**15100**	**15245**		5.8	0.35	1.71	0.94	31.5	38.0	3.5	58.0	55.0	1.3	5.0	5.0	0.29
	63.500	19.050	20.638	14.288	0.8	1.5	46.8	53.9	6400	8600	**15101**	**15250X**		5.8	0.35	1.71	0.94	31.5	32.5	0.8	58.0	54.0	1.5	5.0	5.0	0.29

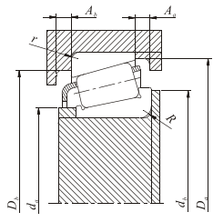
Remarks: 1.) When a is negative, it represents that the useful load center on the outer side of the bearing
2.)** represents that the inner race adopts compound fillet.

Estd. 1983 DPI BEARINGS

Single row taper roller bearing

Inch Series





d 25.400~30.162mm

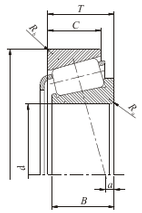
Main Dimension (mm)							Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.			Load center mm	Constant	Axial load coefficient		Mounting dimensions (mm)								Weight (kg)
																		Shaft			Bearing housing			Retainer		
d	D	T	B	C	(R_a) min	(R_b) min	C_1	C_{0r}	Grease Lubrication	Oil Lubrication	Cone	Cup		a [1]	e	Y_1	Y_0	d_a	d_b	RMax	D_a	D_b	rMax	A_a	A_b	
25.400	64.292	21.433	21.433	16.670	1.5	1.5	55.7	71.7	6400	8500	**M86643**	**M86610**		3.3	0.55	1.10	0.60	36.5	38.0	1.5	61.0	54.0	1.5	5.0	3.0	0.36
	65.088	22.225	21.463	15.875	1.5	1.5	50.6	55.8	5600	7900	**23100**	**23256**		2.3	0.73	0.82	0.45	34.5	39.0	1.5	63.0	53.0	1.5	4.0	3.5	0.36
	66.421	23.812	25.433	19.050	1.3	1.3	71.0	81.7	6500	8700	**2687**	**2631**		9.4	0.25	2.36	1.30	31.5	33.5	1.3	60.0	58.0	1.3	6.0	4.5	0.44
	68.262	22.225	22.225	17.462	0.8	1.5	59.1	70.2	6000	8000	**02473**	**02420**		5.1	0.42	1.44	0.79	33.5	34.5	0.8	63.0	59.0	1.5	5.5	3.0	0.43
	72.233	25.400	25.400	19.842	0.8	2.3	71.1	94.2	5700	7600	**HM88630**	**HM88610**		4.6	0.55	1.10	0.60	39.5	39.5	0.8	69.0	60.0	2.3	5.5	4.0	0.59
26.157	61.913	19.050	20.638	14.288	0.8	2.0	46.8	53.9	6400	8600	**15103**	**15249**		5.8	0.35	1.71	0.94	32.5	33.0	0.8	58.0	55.0	2.0	5.0	5.0	0.29
	61.999	19.050	20.638	14.288	0.8	1.3	46.8	53.9	6400	8600	**15103**	**15245**		5.8	0.35	1.71	0.94	32.5	33.0	0.8	58.0	55.0	1.3	5.0	5.0	0.29
26.162	66.421	23.812	25.433	19.050	1.5	1.3	71.0	81.7	6500	8700	**2682**	**2631**		9.4	0.25	2.36	1.30	32.0	34.5	1.5	60.0	58.0	1.3	6.0	4.5	0.43
26.988	50.292	14.244	14.732	10.688	3.5	1.3	27.8	32.9	7800	10000	**L44649**	**L44610**		3.3	0.37	1.60	0.88	31.0	37.5	3.5	47.0	44.5	1.3	4.0	2.5	0.11
	60.325	19.842	17.462	15.875	3.5	1.5	42.6	50.1	7000	9400	**15580**	**15523**		5.1	0.35	1.73	0.95	32.0	38.5	3.5	54.0	51.0	1.5	5.0	1.5	0.25
	62.000	19.050	20.638	14.288	0.8	1.3	46.8	53.9	6400	8600	**15106**	**15245**		5.8	0.35	1.71	0.94	33.0	33.5	0.8	58.0	55.0	1.3	5.0	5.0	0.28
	66.421	23.812	25.433	19.050	1.5	1.3	71.0	81.7	6500	8700	**2688**	**2631**		9.4	0.25	2.36	1.30	33.0	35.0	1.5	60.0	58.0	1.3	6.0	4.5	0.42
28.575	57.150	17.462	17.462	13.495	3.5	1.5	42.6	50.1	7000	9400	**15590**	**15520**		5.1	0.35	1.73	0.95	33.5	39.5	3.5	53.0	51.0	1.5	5.0	3.5	0.19
	57.150	19.845	19.355	15.875	3.5	1.5	44.8	50.2	7000	9300	**1988**	**1922**		5.8	0.33	1.82	1.00	33.5	39.5	3.5	53.5	51.0	1.5	5.0	2.5	0.17
	62.000	19.050	20.638	14.288	3.5	1.3	46.8	53.9	6400	8600	**15112**	**15245**		5.8	0.35	1.71	0.94	34.0	40.0	3.5	58.0	55.0	1.3	5.0	5.0	0.27
	62.000	19.050	20.638	14.288	0.8	1.3	46.8	53.9	6400	8600	**15113**	**15245**		5.8	0.35	1.71	0.94	34.0	34.5	0.8	58.0	55.0	1.3	5.0	5.0	0.27
	64.292	21.433	21.433	16.670	1.5	1.5	55.7	71.7	6400	8500	**M86647**	**M86610**		3.3	0.55	1.10	0.60	38.0	40.0	1.5	61.0	54.0	1.5	5.0	3.0	0.34
	66.421	23.812	25.433	19.050	1.3	1.3	71.0	81.7	6500	8700	**2689**	**2631**		9.4	0.25	2.36	1.30	34.0	36.0	1.3	60.0	58.0	1.3	6.0	4.5	0.41
	68.262	22.225	22.225	17.462	0.8	1.5	59.1	70.2	6000	8000	**02474**	**02420**		5.1	0.42	1.77	0.81	36.0	36.5	0.8	63.0	59.0	1.5	5.5	3.0	0.41
	72.000	19.000	18.923	15.875	1.5	1.5	54.4	60.1	5900	7800	**26112**	**26283**		4.1	0.36	1.67	0.92	35.0	37.0	1.5	65.0	62.0	1.5	4.5	3.0	0.38
	72.626	24.608	24.257	17.462	4.8	1.5	64.6	64.1	6100	8600	**41125**	**41286**		4.1	0.60	1.00	0.55	36.5	48.0	4.8	68.0	61.0	1.5	6.5	4.0	0.46
	72.626	24.608	24.608	17.462	1.5	1.5	64.6	64.1	6100	8600	**41126**	**41286**		4.1	0.60	1.00	0.55	36.5	41.5	1.5	68.0	61.0	1.5	6.5	4.0	0.46
	72.626	30.162	30.162	23.812	3.5	3.3	87.7	102.0	5800	7700	**3192**	**3120**		10.2	0.33	1.80	0.99	37.0	43.5	3.5	67.0	61.0	3.3	6.5	3.0	0.61
	72.626	30.162	30.162	23.812	1.3	3.3	87.7	102.0	5800	7400	**3198**	**3120**		10.2	0.33	1.80	0.99	37.0	39.0	1.3	67.0	61.0	3.3	6.5	3.0	0.61
	73.025	22.225	22.225	17.462	0.8	3.3	60.8	74.9	5500	7400	**02872**	**02820**		3.8	0.45	1.32	0.73	37.0	37.5	0.8	68.0	62.0	3.3	5.0	3.0	1.04
	79.375	25.400	25.400	17.462	0.8	1.5	71.9	76.2	5500	7300	**43112**	**43312**		2	0.67	0.90	0.49	41.5	42.5	0.8	74.0	67.0	1.5	7.0	3.5	0.60
29.000	50.292	14.224	14.224	10.668	3.5	1.3	27.7	36.2	7600	10000	**L45449**	**L45410**		3.3	0.37	1.62	0.89	33.0	39.5	3.5	48.0	44.5	1.3	4.0	3.5	0.11
29.367	66.421	23.812	23.812	19.050	3.5	1.3	71.0	81.7	6500	8700	**2690**	**2631**		9.4	0.25	2.36	1.30	35.0	41.0	3.5	60.0	58.0	1.3	6.0	4.5	0.40
29.987	62.000	16.002	16.002	14.288	1.5	1.5	40.0	44.1	6700	8900	**17118**	**17244**		3.6	0.38	1.57	0.86	34.5	37.0	1.5	57.0	54.0	1.5	3.5	4.5	0.22
	62.000	19.050	19.050	14.288	1.3	1.3	46.8	53.9	6400	8600	**15117**	**15245**		5.8	0.35	1.71	0.94	35.0	36.5	1.3	58.0	55.0	1.3	5.0	5.0	0.26
30.000	69.3012	19.845	19.845	15.875	3.5	1.3	50.6	61.7	5900	7800	**14117A**	**14276**		4.3	0.38	1.57	0.86	40.0	43.0	3.5	63.0	60.0	1.3	4.5	3.0	0.36
30.112	62.000	19.050	19.050	14.288	0.8	1.3	46.8	53.9	6400	8600	**15116**	**15245**		5.8	0.35	1.71	0.94	35.5	36.0	0.8	58.0	55.0	1.3	5.0	5.0	0.26
30.162	62.000	19.845	16.002	14.288	1.5	1.5	40.0	44.1	6700	8900	**17119**	**17244**		3.6	0.38	1.57	0.86	34.5	37.0	1.5	57.0	54.	1.5	3.5	4.5	0.23
	64.292	19.050	21.433	16.670	1.5	1.5	55.7	71.7	6400	8500	**M86649**	**M86610**		3.3	0.55	1.10	0.60	38.2	41.0	1.5	61.0	54.0	1.5	5.0	3.0	0.33
	68.262	16.002	22.225	17.462	2.3	1.5	59.6	77.4	6000	7900	**M88043**	**M88010**		2.8	0.55	1.10	0.60	39.5	43.5	2.3	65.0	58.0	1.5	4.0	3.0	0.41

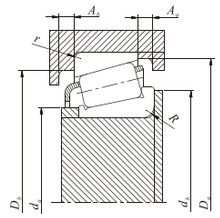
Remarks: 1.) When a is negative, it represents that the useful load center on the outer side of the bearing
2.)** represents that the inner race adopts compound fillet.

Estd. 1983 DPI BEARINGS

Single row taper roller bearing

Inch Series





d30.213~34.980mm

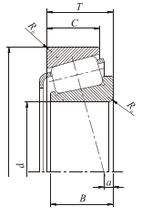
Main Dimension (mm)							Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.			Load center mm	Constant	Axial load coefficient		Mounting dimensions (mm)								Weight (kg)
																		Shaft			Bearing housing			Retainer		
d	D	T	B	C	(R_a) min	(R_b) min	C_1	C_{0r}	Grease Lubrication	Oil Lubrication	Cone	Cup		a [1]	e	Y_1	Y_0	d_a	d_b	RMax	D_a	D_b	rMax	A_a	A_b	
30.213	62.000	21.433	19.050	14.288	3.5	1.3	46.8	53.9	6400	8600	**15518**	**15245**		5.8	0.35	1.71	0.94	35.5	41.5	3.5	58.0	55.0	1.3	5.0	5.0	0.26
	62.000	22.225	19.050	14.288	1.5	1.3	46.8	53.9	6400	8600	**15119**	**15245**		5.8	0.35	1.71	0.94	35.5	37.5	1.5	58.0	55.0	1.3	5.0	5.0	0.26
	62.000	19.050	19.050	14.288	0.8	1.3	46.8	53.9	6400	8600	**15120**	**15245**		5.8	0.35	1.71	0.94	35.5	36.0	0.8	58.0	55.0	1.3	5.0	5.0	0.26
30.226	69.012	19.845	19.845	15.875	0.8	3.3	50.6	61.7	5900	7800	**14116**	**14274**		4.3	0.38	1.57	0.86	36.5	38.0	0.8	63.0	59.0	3.3	4.5	3.0	0.35
31.750	58.738	14.684	14.684	10.716	1.0	1.0	29.3	35.0	6600	8900	**08125**	**08231**		1.3	0.47	1.27	0.69	36.0	37.5	1.0	55.0	52.0	1.0	4.5	3.0	0.16
	59.131	15.875	15.875	11.811	** [2]	1.3	36.5	44.6	6600	8800	**LM67048**	**LM67010**		3.0	0.41	1.46	0.80	36.0	42.5	**[2]	56.0	52.0	1.3	4.5	3.5	0.17
	62.000	18.161	18.161	14.288	**	1.3	46.8	53.9	6400	8600	**15123**	**15245**		4.8	0.35	1.71	0.94	36.5	42.5	**	58.0	55.0	1.3	5.0	5.0	0.23
	62.000	19.050	19.050	14.288	3.5	1.3	46.8	53.9	6400	8600	**15125**	**15245**		5.8	0.35	1.71	0.94	36.5	42.5	3.5	58.0	55.0	1.3	5.0	5.0	0.24
	62.000	19.050	19.050	14.288	0.8	1.3	46.8	53.9	6400	8600	**15126**	**15245**		5.8	0.35	1.71	0.94	36.5	37.0	0.8	58.0	55.0	1.3	5.0	5.0	0.25
	66.421	25.400	25.400	20.638	0.8	3.3	77.5	94.4	6000	8000	**2580**	**2520**		8.6	0.27	2.19	1.21	37.5	38.5	0.8	62.0	56.9	3.3	5.5	3.0	0.39
	68.262	22.225	22.225	17.462	1.5	1.5	59.6	77.4	6000	7900	**M88046**	**M88010**		2.8	0.55	1.10	0.60	40.5	43.0	1.5	58.0	58.0	1.5	4.0	3.0	0.40
	68.262	22.225	22.225	17.462	3.5	1.5	59.1	70.2	6000	8000	**02475**	**02420**		5.1	0.42	1.44	0.79	38.5	44.5	3.5	63.0	59.0	1.5	5.5	3.0	0.37
	68.262	22.225	22.225	17.462	0.8	1.5	59.1	70.2	6000	8000	**02476**	**02420**		5.1	0.42	1.44	0.79	38.5	44.5	0.8	63.0	59.0	1.5	5.5	3.0	0.38
	73.025	22.225	22.225	17.462	3.5	3.3	60.8	74.9	5600	7400	**02875**	**02820**		3.8	0.45	1.32	0.73	39.5	45.5	3.5	68.0	62.0	3.3	5.0	3.0	0.44
	73.025	22.225	22.225	17.462	0.8	3.3	60.8	74.9	5600	7400	**02876**	**02820**		3.8	0.45	1.32	0.73	39.5	40.0	0.8	68.0	62.0	3.3	5.0	3.0	0.45
	73.025	29.37	27.783	23.02	1.3	3.3	80.6	111	5600	7500	**HM88542**	**HM88510**		5.6	0.55	1.10	0.60	42.5	45.5	1.3	70.0	59.0	3.3	6.5	2.0	0.61
	73.812	29.37	27.783	23.02	1.3	0.8	80.6	111	5600	7500	**HM88542**	**HM88511**		5.6	0.55	1.10	0.60	42.5	45.5	1.3	70.0	62.0	0.8	6.5	2.0	0.62
	79.375	25.4	24.074	17.462	1.5	1.5	71.9	76.2	5500	7300	**43125**	**43312**		2.0	0.67	0.90	0.49	41.5	44.0	1.5	74.0	67.0	1.5	7.0	3.5	0.57
33.338	68.262	22.225	22.225	17.462	0.8	1.5	59.6	77.4	6020	7900	**M88048**	**M88010**		2.8	0.55	1.10	0.60	41.0	42.5	0.8	65.0	58.0	1.5	4.0	3.0	0.37
	72	19	18.923	15.875	3.5	1.5	54.4	60.1	5900	7800	**26131**	**26283**		4.2	0.36	1.67	0.92	38.5	44.5	3.5	65.0	62.0	1.5	4.5	3.0	0.34
	73.025	29.37	27.783	23.02	0.8	3.3	80.6	111	5600	7500	**HM89443**	**HM88510**		5.6	0.55	1.10	0.60	42.6	45.5	0.8	70.0	59.0	3.3	6.5	2.0	0.59
	76.2	29.37	28.575	23.02	0.8	3.3	86.2	119	5400	7200	**HM89443**	**HM89410**		5.6	0.55	1.10	0.60	44.5	46.5	0.8	73.0	62.0	3.3	5.5	3.0	0.66
	79.375	25.4	24.074	17.462	3.5	1.5	71.9	76.2	5500	7300	**43131**	**43312**		2.0	0.67	0.90	0.49	42.0	51.0	3.5	74.0	67.0	1.5	7.0	3.5	0.55
	79.375	25.4	24.074	17.462	2	1.5	71.9	76.2	5500	7300	**43132**	**43312**		2.0	0.67	0.90	0.49	42.0	48.0	2.0	74.0	67.0	1.5	7.0	3.5	0.56
	88.501	25.4	23.698	17.462	2	1.5	77.9	88.6	3900	5500	**43131**	**43318**		2.3	0.78	0.77	0.42	48.0	51.0	2.0	84.0	75.0	1.5	5.5	4.0	0.76
34.925	65.088	18.034	18.288	13.97	**[2]	1.3	50.5	63.1	6000	8000	**LM48548**	**LM48510**		3.6	0.38	1.59	0.88	40.0	46.0	**[2]	61.0	58.0	1.3	4.5	3.0	0.26
	69.012	19.845	19.583	15.875	1.5	1.3	50.6	61.7	5900	7800	**14137A**	**14276**		4.3	0.38	1.57	0.86	40.0	42.0	1.5	63.0	60.0	1.3	4.5	3.0	0.32
	72.233	25.4	25.4	19.842	2.3		71.1	94.2	5700	7600	**HM88649**	**HM88610**		4.6	0.55	1.10	0.6	42.5	48.5	2.3	69.0	60.0	2.3	5.5	4.0	0.50
	72.238	20.638	20.638	15.875	3.5	1.3	52.4	65.8	5600	7400	**16137**	**16284**		4.1	0.40	1.49	0.82	40.5	47.0	3.5	67.0	63.0	1.3	5.5	3.0	0.38
	73.025	22.225	22.225	17.462	3.5	3.3	60.8	74.9	5500	7400	**02877**	**02820**		3.8	0.45	1.32	0.73	42.0	48.5	3.5	68.0	62.0	3.3	5.0	3.0	0.41
	73.025	22.225	22.225	17.462	0.8	3.3	60.8	74.9	5500	7400	**02878**	**02820**		3.8	0.45	1.32	0.73	42.0	42.5	0.8	68.0	62.0	3.3	5.0	3.0	0.42
	73.025	23.812	24.608	19.05	1.5	0.8	78.8	97.4	5600	7400	**25877**	**25821**		8.1	0.29	2.07	1.14	40.5	43.0	1.5	68.0	65.0	0.8	5.5	4.5	0.46
	76.2	23.812	25.654	19.5	5	3.3	80.4	102	5300	7000	**2786**	**2720**		8.1	0.30	1.98	0.82	41.0	51.0	5.0	70.0	66.0	3.3	5.0	5.0	0.52
	76.2	29.37	28.575	23.812	3.5	3.3	87.7	107	5400	7200	**31594**	**31520**		7.6	0.40	1.49	1.09	43.5	46.0	1.5	72.0	64.0	3.3	6.0	2.5	0.61
	79.375	29.37	29.711	23.812	3.5	3.3	96.9	119	5400	7200	**3478**	**3420**		8.6	0.37	1.64	0.82	43.5	50.0	3.5	74.0	67.0	3.3	6.0	3.5	0.70
	80.035	21.433	20.94	15.875	1.5	1.5	58.8	68.9	5200	6900	**28137**	**28317**		4.8	0.40	1.49	0.90	41.0	43.5	1.5	73.0	69.0	1.5	4.5	3.0	0.50
	95.25	27.782	29.9	22.225	0.8	2.3	118	144	4500	5900	**449**	**432**		9.1	0.28	2.11	1.16	43.5	44.0	0.8	87.0	83.0	2.3	6.0	5.0	1.07
34.980	59.131	15.875	16.764	11.938	**[2]	1.3	35.5	49.3	6400	8500	**L68149**	**L68110**		2.5	0.42	1.44	0.79	39.0	45.5	**[2]	56.0	53.0	1.3	4.0	3.0	0.18
	59.975	15.875	16.764	11.938	**	1.3	35.5	49.3	6400	8500	**L68149**	**L68111**		2.5	0.42	1.44	0.79	39.0	45.5	**	56.0	53.0	1.3	4.0	3.0	0.18

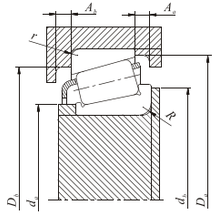
Remarks: 1.) When a is negative, it represents that the useful load center on the outer side of the bearing
2.)** represents that the inner race adopts compound fillet.

06 | Tapered Roller Bearing

Single row taper roller bearing

Inch Series





***d* 35.000~39.688mm**

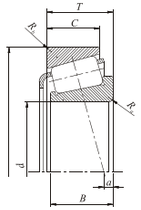
Main Dimension (mm)							Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.			Load center mm	Constant	Axial load coefficient		Mounting dimensions (mm)								Weight (kg)
																		Shaft			Bearing housing			Retainer		
d	*D*	*T*	*B*	*C*	(R_a) min	(R_b) min	C_r	C_{0r}	*Grease Lubrication*	*Oil Lubrication*	*Cone*	*Cup*		*a* [1]	*e*	Y_1	Y_0	d_a	d_b	*RMax*	D_a	D_b	*rMax*	A_a	A_b	
35.000	79.375	23.812	25.400	19.050	0.8	0.8	84.3	110	5000	6700	**26883**	**26822**		7.4	0.32	1.88	1.04	42.0	42.5	0.8	74.0	71.0	0.8	5.0	4.5	0.60
	80.000	21.000	22.403	17.826	0.8	1.3	73.6	83.4	4900	6000	**339**	**332**		6.2	0.27	2.20	1.21	41.5	42.5	0.8	75.0	73.0	1.3	5.0	4.5	0.53
35.717	72.233	25.400	25.400	19.842	3.5	2.3	71.1	94.2	5700	7600	**HM88648**	**HM88610**		4.6	0.55	1.10	0.60	43.0	52.0	3.5	69.0	60.0	2.3	5.5	4.0	0.48
36.487	73.025	23.812	24.608	19.050	1.5	0.8	78.8	97.4	5600	7400	**25880**	**25821**		8.1	0.29	2.07	1.14	42.0	44.0	1.5	68.0	65.0	0.8	5.5	4.5	0.45
	76.200	23.812	25.654	19.050	1.5	3.3	80.4	102	5400	7200	**2780**	**2720**		8.1	0.3	1.98	1.09	42.5	44.5	1.5	70.0	66.0	3.3	5.0	5.0	0.52
36.512	79.200	29.370	28.575	23.020	3.5	0.8	86.2	119	5400	7200	**HM89449**	**HM89441**		5.6	0.55	1.10	0.60	44.5	54.0	3.5	73.0	65.0	0.8	5.5	3.0	0.62
	79.375	23.812	25.400	19.050	0.8	0.8	84.3	110	5000	6700	**26877**	**26822**		7.4	0.32	1.88	1.04	43.0	44.0	0.8	74.0	71.0	0.8	5.0	4.5	0.59
	79.375	29.370	29.771	23.812	0.8	3.3	96.9	119	5200	6900	**3479**	**3420**		8.6	0.37	1.64	0.90	44.5	45.5	0.8	74.0	67.0	3.3	6.0	3.5	0.68
	85.725	30.162	30.162	23.812	0.8	3.3	115	148	4800	6400	**3878**	**3820**		8.1	0.40	1.49	0.82	47.0	48.0	0.8	81.0	73.0	3.3	7.0	4.5	0.89
	88.500	25.400	23.698	17.462	2.3	1.5	77.9	88.6	3900	5500	**44143**	**44348**		-2.3	0.78	0.77	0.42	50.0	54.0	2.3	84.0	75.0	1.5	5.5	4.0	0.72
38.000	63.000	17.000	17.000	13.500	** [2]	1.3	39.8	55.0	6000	8000	**JL69349**	**JL69310**		2.3	0.42	1.44	0.79	42.5	49.0	**[2]	60.0	56.0	1.3	4.0	3.0	0.19
38.100	63,500	12,700	11.908	9.525	1.5	0.8	25.1	33.0	5800	7700	**13889**	**13830**		0.8	0.35	1.73	0.95	42.5	45.0	1.5	60.0	59.0	0.8	4.0	2.0	0.14
	65.088	12,700	11.908	9.525	1.5	0.8	25.1	33.0	5800	7700	**13889**	**13836**		0.8	0.35	1.73	0.95	42.5	45.0	1.5	61.0	59.0	0.8	4.0	2.0	0.15
	65.088	18.034	18.288	13.970	**	1.3	45.0	60.3	5800	7800	**LM29748**	**LM29710**		4.1	0.33	1.80	0.99	42.5	49.0	**	62.0	59.0	1.3	4.5	3.0	0.22
	65.088	19.812	18.288	15.748	2.3	1.3	45.0	60.3	5800	7800	**LM29749**	**LM29711**		4.1	0.33	1.80	0.99	42.5	46.0	2.3	62.0	58.0	1.3	4.5	1.5	0.24
	69.012	19.050	19.050	15.083	2.0	2.3	52.5	67.9	5600	7500	**13687**	**13621**		3.0	0.40	1.49	0.82	43.0	46.5	2.0	65.0	61.0	2.3	4.0	2.5	0.29
	71.438	15.875	16.520	11.908	1.5	1.0	46.9	57.8	5700	7600	**19150**	**19281**		1.5	0.44	1.35	0.74	43.0	45.0	1.5	66.0	63.0	1.0	4.0	4.0	0.27
	76.200	23.812	25.654	19.050	3.5	3.3	80.4	102	5400	7200	**2788**	**2720**		8.1	0.30	1.98	1.09	43.5	50.0	3.5	77.0	66.0	3.3	5.0	5.0	0.49
	79.375	29.370	29.771	23.812	3.5	3.3	96.9	119	5200	6900	**3490**	**3420**		8.6	0.37	1.64	0.90	45.5	52.0	3.5	74.0	67.0	3.3	6.0	3.5	0.65
	80.035	21.006	20.940	15.875	1.5	1.5	58.8	68.9	5300	7000	**28150**	**28315**		4.8	0.40	1.49	0.82	43.5	45.5	1.5	73.0	69.0	1.5	4.5	3.5	0.46
	80.035	24.608	23.698	18.512	0.8	1.5	72.2	91.1	5200	6900	**27880**	**27820**		2.5	0.56	1.07	0.59	47.0	48.0	0.8	75.0	68.0	1.5	4.5	2.5	0.56
	80.035	24.608	23.698	18.512	3.5	1.5	72.2	91.1	5200	6900	**27881**	**27820**		2.5	0.56	1.07	0.59	47.0	48.0	3.5	75.0	68.0	1.5	4.5	2.5	0.55
	82.550	29.370	28.575	23.020	0.8	3.3	95.1	130	4900	6600	**HM801346**	**HM801310**		4.8	0.55	1.10	0.60	49.1	51.0	0.8	78.0	68.0	3.3	6.0	3.0	0.76
	82.550	29.370	28.575	23.020	2.3	3.3	95.1	130	4900	6600	**HM801346X**	**HM801310**		4.8	0.55	1.10	0.60	49.1	54.0	2.3	78.0	68.0	3.3	6.0	3.0	0.53
	82.931	23.812	25.400	19.050	0.8	0.8	83.8	111	4800	6300	**25572**	**25520**		6.4	0.33	1.79	0.99	46.0	46.0	0.8	77.0	74.0	0.8	5.5	4.5	0.64
	88.500	25.400	23.698	17.462	2.3	1.5	77.9	88.6	3900	5500	**44150**	**44348**		-2.3	0.78	0.77	0.42	51.0	55.0	2.3	84.0	75.0	1.5	5.5	4.0	0.71
	88.500	26.988	29.083	22.225	3.5	1.5	107	124	4900	6500	**418**	**414**		9.7	0.26	2.28	1.25	44.5	51.0	3.5	80.0	77.0	1.5	6.0	5.0	0.82
	90.488	39.688	40.386	38.338	1.5	3.3	155	204	4500	6000	**4375**	**4335**		15	0.28	2.11	1.16	48.5	51.0	1.5	85.0	77.0	3.3	6.5	3.5	1.30
	95.250	30.958	28.300	20.638	1.5	0.8	92.8	104	3700	5200	**53150**	**53375**		0.3	0.74	0.81	0.45	53.0	55.0	1.5	89.0	81.0	0.8	7.0	2.0	1.04
	101.60	34.925	36.068	26.988	3.5	3.3	152	192	4000	5300	**525**	**522**		12.7	0.29	2.15	1.16	48.0	54.0	3.5	95.0	89.0	3.3	8.0	5.5	1.47
39.688	73.025	16.667	17.462	12.700	0.8	1.5	47.0	58.1	5200	6900	**18587**	**18250**		2.8	0.35	1.71	0.94	45.0	45.5	0.8	69.0	66.0	1.5	5.5	4.0	0.29
	76.200	23.812	25.654	19.050	3.5	3.3	80.4	102	5400	7200	**2789**	**2720**		8.1	0.30	1.98	1.09	45.0	52.0	3.5	70.0	66.0	3.3	5.0	5.0	0.47
	80.167	29.370	30.391	23.812	0.8	3.3	106	129	5000	6700	**3886**	**3320**		10.9	0.27	2.20	1.21	45.5	46.5	0.8	75.0	70.0	3.3	6.0	4.5	0.65
	84.138	29.370	30.391	23.812	0.8	3.3	106	129	5000	6700	**3382**	**3328**		10.9	0.27	2.20	1.21	45.0	52.0	0.8	76.0	72.0	3.3	6.0	4.5	0.75
	88.500	25.400	23.698	17.462	3.5	1.5	77.9	88.6	3900	5500	**44158**	**44348**		-2.3	0.78	0.77	0.42	51.0	58.0	3.5	84.0	75.0	1.5	5.5	4.0	0.68

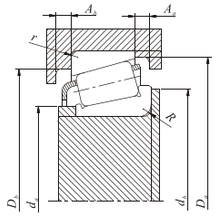
Remarks: 1.) When a is negative, it represents that the useful load center on the outer side of the bearing
2.)** represents that the inner race adopts compound fillet.

Estd. 1983 DPI BEARINGS

Single row taper roller bearing

Inch Series





d 40.000~42.875mm

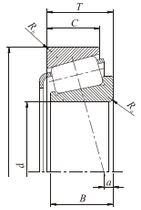
Main Dimension (mm)							Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.			Load center mm	Constant	Axial load coefficient		Mounting dimensions (mm)								Weight (kg)
																		Shaft			Bearing housing			Retainer		
d	D	T	B	C	(R_a) min	(R_b) min	C_r	C_{0r}	Grease Lubrication	Oil Lubrication	Cone	Cup		a 1)	e	Y_1	Y_0	d_a	d_b	RMax	D_a	D_b	rMax	A_a	A_b	
40.000	76.200	20.638	20.940	15.507	1.5	1.3	58.8	68.9	5300	7000	**28158**	**28300**		4.8	0.40	1.49	0.82	45.0	47.5	1.5	71.0	68.0	1.3	4.5	4.0	0.38
	80.000	21.000	22.403	17.826	3.5	1.3	73.6	83.4	4900	6600	**344**	**332**		6.4	0.27	2.20	1.21	45.5	52.0	3.5	75.0	73.0	1.3	5.0	4.5	0.47
	80,000	21.000	22.403	17.826	0.8	1.3	73.6	83.4	4900	6600	**344A**	**332**		6.2	0.27	2.20	1.21	45.5	46.0	0.8	75.0	73.0	1.3	5.0	4.5	0.47
	85.000	20.638	21.692	17.462	0.8	1.3	75.8	89.2	4600	6200	**350A**	**354A**		4.8	0.31	1.96	1.08	46.5	47.5	0.8	80.0	77.0	1.3	5.0	5.0	0.55
	88.500	26.988	29.083	22.225	3.5	1.5	108	124	4900	6500	**420**	**414**		9.7	0.26	2.28	1.25	46.0	52.0	3.5	80.0	77.0	1.5	6.0	5.0	0.79
	107.95	36.512	36.957	28.575	3.3	3.3	159	206	3800	5100	**543**	**532A**		12.2	0.30	2.02	1.11	50.0	57.0	3.5	100	94.0	3.3	8.0	4.0	1.74
40.483	82.550	29.370	28.575	23.020	3.5	3.3	95.1	130	4900	6600	**HM801349**	**HM801310**		4.8	0.55	1.10	0.6	49.0	58.0	3.5	78.0	68.0	3.3	6.0	3.0	0.73
41.275	73.025	16.667	17.460	12.700	3.5	105	47.0	58.1	5200	6900	**18590**	**18520**		2.8	0.35	1.71	0.94	46.0	53.0	3.5	69.0	66.0	1.5	5.5	4.0	0.27
	73.431	19.558	19.812	14.732	3.5	0.8	58.4	74.2	5200	7000	**LM501349**	**LM501310**		3.3	0.40	1.50	0.83	46.5	53.0	3.5	70.0	67.0	0.8	5.5	3.5	0.32
	73.431	21.430	19.812	16.604	3.5	0.8	58.4	74.2	5200	7000	**LM501349**	**LM501314**		3.3	0.40	1.50	0.83	46.5	53.0	3.5	70.0	66.0	0.8	5.5	1.5	0.34
	76.200	18.009	17.384	14.288	1.5	1.5	44.5	55.1	5200	6900	**11162**	**11300**		0.8	0.49	1.23	0.68	46.5	49.0	1.5	71.0	67.0	1.5	3.5	3.0	0.33
	76.200	22.225	23.020	17.462	3.5	0.8	69.9	89.2	5200	6900	**24780**	**24720**		4.8	0.39	1.53	0.84	47.0	54.0	3.5	72.0	68.0	0.8	5.5	3.5	0.41
	80.000	21.000	22.403	17.826	0.8	1.3	73.6	83.4	4900	6600	**336**	**332**		6.2	0.27	2.20	1.21	46.0	47.0	0.8	75.0	73.0	1.3	5.0	4.5	0.46
	80.000	21.000	22.403	17.826	3.5	1.3	73.6	83.4	4900	6600	**342**	**332**		6.2	0.27	2.20	1.21	46.0	53.0	3.5	75.0	73.0	1.3	5.0	4.5	0.45
	82.550	26.543	25.654	20.193	3.5	3.3	84.9	112	4900	6500	**M802048**	**M802011**		3.0	0.55	1.10	0.60	51.0	57.0	3.5	79.0	70.0	3.3	5.5	3.0	0.62
	82.725	30.162	30.162	23.812	3.5	1.3	115	148	4800	6400	**3877**	**3821**		8.1	0.40	1.49	0.82	50.0	57.0	3.5	81.0	75.0	1.3	7.0	4.5	0.83
	87.312	30.162	30.886	23.812	0.8	3.3	105	134	4800	6400	**3576**	**3525**		10.2	0.31	1.96	1.08	48.0	49.0	0.8	81.0	75.0	3.3	6.5	3.5	0.82
	88.501	26.988	29.083	22.225	3.5	1.5	107	124	4600	6200	**419**	**414**		9.7	0.26	2.28	1.25	47.0	54.0	3.5	80.0	77.0	1.5	6.0	5.0	0.77
	88.900	20.638	22.225	16.513	3.5	1.3	79.5	95.8	4900	6500	**365A**	**362A**		4.3	0.32	1.88	1.03	48.5	55.0	3.5	84.0	81.0	1.3	5.5	5.0	0.62
	88.900	30.162	29.370	23.020	3.5	3.3	105	144	4400	5800	**HM803146**	**HM803110**		4.3	0.55	1.10	0.60	53.0	60.0	3.5	85.0	74.0	3.3	7.5	4.0	0.89
	88.900	30.162	29.370	23.020	3.5	0.8	105	144	4600	6100	**HM803146**	**HM803111**		4.3	0.55	1.10	0.60	53.0	60.0	3.5	85.0	76.0	0.8	7.5	4.0	0.90
	90.488	39.688	40.386	33.338	3.5	3.3	155	204	4500	6000	**4388**	**4335**		15.0	0.28	2.11	1.16	51.0	57.0	3.5	85.0	77.0	3.3	6.5	3.5	1.23
	93.662	31.750	31.750	26.195	0.8	3.3	120	158	4400	5800	**46162**	**46368**		7.9	0.40	1.49	0.82	51.0	52.0	0.8	87.0	79.0	3.3	5.5	3.5	1.07
	95.250	30.162	29.370	23.020	3.5	3.3	115	157	3300	4400	**HM804840**	**HM804810**		3.8	0.55	1.10	0.60	54.0	61.0	3.5	91.0	81.0	3.3	7.0	4.5	1.06
	104.775	36.513	36.512	28.575	1.5	3.3	159	223	3800	5100	**HM807035**	**HM807010**		7.4	0.49	1.23	0.68	57.0	60.0	1.5	100	89.0	3.3	7.0	4.0	1.69
42.070	90.488	39.688	40.386	33.338	3.5	3.3	155	204	4500	6000	**4395**	**4335**		15.0	0.28	2.11	1.16	51.0	58.0	3.5	85.0	77.0	3.3	6.5	3.5	1.21
42.862	76.992	17.462	17.145	11.908	1.5	1.5	45.9	58.1	5000	6600	**12168**	**12303**		0	0.51	1.19	0.65	48.5	51.0	1.5	73.0	68.0	1.5	6.0	3.5	0.31
42.875	79.375	23.812	25.400	19.050	3.5	0.8	84.3	110	5000	67000	**26884**	**26822**		7.4	0.32	1.88	1.04	48.5	55.0	3.5	74.0	71.0	0.8	5.0	4.5	0.50
	82.931	23.812	25.400	19.050	3.5	0.8	83.8	111	4800	6300	**25577**	**25520**		6.4	0.33	1.79	0.99	49.0	55.0	3.5	77.0	74.0	0.8	5.5	4.5	0.58

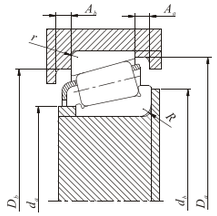
Remarks: 1.) When a is negative, it represents that the useful load center on the outer side of the bearing
2.)** represents that the inner race adopts compound fillet.

Estd. 1983 DPI BEARINGS

Single row taper roller bearing

Inch Series





d 44.450~46.038mm

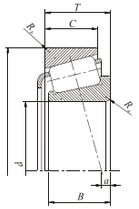
Main Dimension (mm)							Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.			Load center mm	Constant	Axial load coefficient		Mounting dimensions (mm)								Weight (kg)
																		Shaft			Bearing housing			Retainer		
d	D	T	B	C	(R_a) min	(R_b) min	C_r	C_{0r}	Grease Lubrication	Oil Lubrication	Cone	Cup		a [1]	e	Y_1	Y_0	d_a	d_b	RMax	D_a	D_b	rMax	A_a	A_b	
44.450	73.025	18.258	18.258	15.083	1.5	1.5	52.8	73.8	5100	6800	**L102849**	**L102810**		3.8	0.32	1.88	1.04	49.0	51.0	1.5	69.0	66.0	1.5	4.5	3.0	0.30
	79.992	17.462	17.145	11.908	1.5	1.5	45.9	58.1	5000	6600	**12175**	**12303**		0	0.51	1.19	0.65	49.5	52.0	1.5	73.0	68.0	1.5	6.0	3.5	0.30
	79.375	17.462	17.462	13.495	2.8	1.5	48.2	61.3	4800	6400	**18685**	**18620**		2	0.37	1.60	0.88	49.5	54.0	2.8	74.0	71.0	1.5	5.0	3.5	0.34
	82.931	23.812	25.400	19.050	5.0	0.8	83.8	111	4800	6300	**25582**	**25520**		6.4	0.33	1.79	0.99	50.0	60.0	5.0	77.0	74.0	0.8	5.5	4.5	0.55
	84.138	30.162	30.886	23.812	3.5	3.3	105	134	4600	6200	**3578**	**3520**		10.2	0.31	1.96	1.08	51.0	57.0	3.5	80.0	74.0	3.3	6.5	3.5	0.68
	85.000	20.638	21.692	17.462	2.3	1.3	75.8	89.2	4600	6200	**355**	**354A**		4.8	0.31	1.96	1.08	50.0	54.0	2.3	80.0	77.0	1.3	5.0	5.0	0.50
	85.000	20.638	21.692	17.462	0.8	1.3	75.8	89.2	4600	6200	**355A**	**355A**		4.8	0.31	1.96	1.08	50.0	51.0	0.8	80.0	77.0	1.3	5.0	5.0	0.50
	88.900	30.162	29.370	23.020	3.5	3.3	105	144	4600	6100	**HM803149**	**HM803110**		4.3	0.55	1.10	0.60	53.4	62.0	3.5	85.0	74.0	3.3	7.5	4.0	0.84
	93.662	31.750	31.750	26.195	0.8	3.3	120	158	4400	5900	**46175**	**46368**		7.8	0.40	1.49	0.92	54.0	55.0	0.8	87.0	79.0	3.3	5.5	3.5	1.01
	93.662	31.750	31.750	25.400	3.5	3.3	126	156	4400	5800	**49175**	**49368**		9.1	0.36	1.67	0.82	53.0	59.0	3.5	87.0	82.0	3.3	5.5	3.0	1.00
	93.662	31.750	31.750	26.195	3.5	3.3	120	158	4400	5800	**46176**	**46368**		7.8	0.40	1.49	0.82	54.0	60.0	3.5	87.0	79.0	3.3	5.5	3.5	1.01
	95.250	27.783	28.575	22.225	0.8	2.3	120	161	4100	5400	**33885**	**33821**		7.6	0.33	1.82	1.00	53.0	53.0	0.8	90.0	85.0	2.3	6.5	5.5	0.96
	95.250	27.783	29.000	22.225	3.5	0.8	118	144	4500	5900	**438**	**432A**		9.1	0.28	2.11	1.16	51.0	57.0	3.5	87.0	84.0	0.8	6.0	5.0	0.93
	95.250	30.162	29.370	23.020	0.8	3.3	115	157	3300	4400	**HM804842**	**HM804810**		3.8	0.55	1.10	0.6	57.0	57.0	0.8	91.0	81.0	3.3	7.0	4.5	1.02
	95.250	30.162	29.370	23.020	3.5	3.3	115	157	3700	5200	**HM804843**	**HM804810**		3.8	0.55	1.10	0.6	57.0	63.0	3.5	91.0	81.0	3.3	7.0	4.5	1.01
	95.250	30.958	28.300	20.638	3.5	0.8	92.8	104	3700	5200	**53177**	**53375**		0.3	0.74	0.81	0.45	53.0	63.0	3.5	89.0	81.0	0.8	7.0	2.0	0.94
	95.250	30.958	28.300	20.638	2.0	0.8	92.8	104	3700	5200	**53178**	**53375**		0.3	0.74	0.81	0.45	53.0	60.0	2.0	89.0	81.0	0.8	7.0	2.0	0.94
	95.250	30.958	28.575	22.225	3.5	0.8	107	132	3700	5100	**HM903249**	**HM903210**		-0.5	0.74	0.81	0.45	54.0	65.0	3.5	91.0	81.0	0.8	7.0	2.0	1.00
	98.425	31.750	31.750	25.400	0.8	3.3	123	155	3900	5200	**49576**	**49520**		7.1	0.40	1.50	0.82	54.0	55.0	0.8	96.0	88.0	3.3	6.5	4.0	1.23
	98.425	30.958	28.300	20.638	1.3	0.8	92.8	104	3700	5200	**53176**	**53387**		0.3	0.74	0.81	0.45	53.0	59.0	1.3	91.0	82.0	0.8	7.0	2.0	1.03
	101.6	34.926	30.068	26.988	3.5	3.3	152	192	4000	5300	**527**	**522**		12.7	0.29	2.10	1.16	53.0	59.0	3.5	95.0	89.0	3.3	8.0	5.5	1.35
	104.775	36.512	36.512	28.575	3.5	3.3	159	223	3800	5100	**HM807040**	**HM807010**		7.4	0.49	1.23	0.68	59.0	66.0	3.5	100	89.0	3.3	7.0	4.0	1.62
	111.125	30.162	26.909	20.638	3.5	3.3	118	161	3100	4300	**55175C**	**55437**		-7.6	0.88	0.68	0.37	64.0	70.0	3.5	105	92.0	3.3	6.0	3.5	1.44
	111.125	30.162	26.909	20.638	0.8	3.3	118	161	3100	4300	**55176C**	**55437**		-7.6	0.88	0.68	0.37	64.0	65.0	0.8	105	92.0	3.3	6.0	3.5	1.44
	111.125	38.100	36.957	30.162	3.5	3.3	159	206	3800	5100	**535**	**532A**		12.2	0.3	2.02	1.11	54.0	60.0	3.5	100	95.0	3.3	8.0	2.5	1.84
44.983	93.264	30.162	30.302	23.812	3.5	3.3	113	153	4200	5500	**3776**	**3720**		8.1	0.34	1.77	0.97	53.0	59.0	3.5	88.0	82.0	3.3	7.0	3.5	0.94
44.988	95.250	30.958	28.575	22.225	3.5	0.8	107	132	3700	5100	**HM903248**	**HM903210**		-0.5	0.74	0.81	0.45	54.0	66.0	3.5	91.0	81.0	0.8	7.0	2.0	0.99
45.000	85.000	20.638	21.692	17.462	1.5	1.3	75.8	89.2	4600	6200	**358**	**354A**		4.8	0.31	1.96	1.08	50.0	53.0	1.5	80.0	77.0	1.3	5.0	5.0	0.50
45.242	73.431	19.558	19.812	15.748	3.5	0.8	56.9	81.8	5100	6700	**LM102949**	**LM102910**		4.6	0.31	1.97	1.08	50.0	56.0	3.5	70.0	68.0	0.8	4.5	3.0	0.31
	77.788	19.842	19.842	15.080	3.5	0.8	59.6	77.9	4900	6500	**LM102949**	**LM103011**		2.3	0.43	1.41	0.77	50.0	57.0	3.5	74.0	71.0	0.8	5.0	3.5	0.36
	77.788	21.430	19.842	16.667	3.5	0.8	59.6	77.9	4900	6500	**LM102949**	**LM103012**		2.3	0.43	1.41	1.08	50.0	57.0	3.5	74.0	70.0	0.8	5.0	2.0	0.37
	80.000	19.842	19.842	15.080	3.5	0.8	59.6	77.9	4900	6500	**LM102949**	**LM103014**		2.3	0.43	1.41	0.77	51.0	58.0	3.5	75.0	71.0	0.8	5.0	3.5	0.39
45.518	85.000	23.812	25.400	19.050	3.5	2.3	83.8	111	4800	6300	**25590**	**25526**		6.4	0.33	1.79	0.99	51.0	58.0	3.5	78.0	74.0	2.3	5.5	4.5	0.57
45.987	74.976	18.000	18.000	14.000	2.3	1.5	52.6	75.4	5000	6600	**LM503349**	**LM503310**		2.0	0.40	1.49	0.82	51.0	55.0	2.3	71.0	67.0	1.5	5.0	3.5	0.30
46.038	79.375	17.462	17.462	13.495	2.8	1.5	48.2	61.3	4800	6400	**18690**	**18620**		2.0	0.37	1.60	0.88	51.0	56.0	2.8	74.0	71.0	1.5	5.0	3.5	0.33
	85.000	20.638	21.692	17.462	3.5	1.3	75.8	89.2	4800	6200	**359A**	**354A**		4.8	0.31	1.96	1.08	51.0	57.0	3.5	80.0	77.0	1.3	5.0	5.0	0.48
	85.000	20.638	21.692	17.462	2.3	1.3	75.8	89.2	4800	6200	**359S**	**354A**		4.8	0.31	1.96	1.08	51.0	55.0	2.3	80.0	77.0	1.3	5.0	5.0	0.48
	85.000	25.400	25.608	20.638	3.5	1.3	86.4	117	4800	6100	**2984**	**2924**		6.4	0.35	1.73	0.95	52.0	58.0	3.5	80.0	76.0	1.3	5.0	5.0	0.60

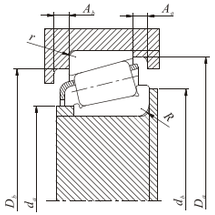
Remarks: 1.) When a is negative, it represents that the useful load center on the outer side of the bearing
2.)** represents that the inner race adopts compound fillet.

Estd. 1983 DPI BEARINGS

Single row taper roller bearing

Inch Series





d 47.625~50.800mm

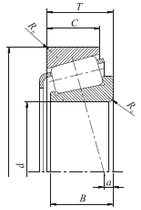
Main Dimension (mm)							Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.			Load center mm	Constant e	Axial load coefficient		Mounting dimensions (mm)								Weight (kg)
					(R_a) min	(R_b) min												Shaft			Bearing housing			Retainer		
d	D	T	B	C			C_r	C_{0r}	Grease Lubrication	Oil Lubrication	Cone	Cup		a [1]		Y_1	Y_0	d_a	d_b	RMax	D_a	D_b	rMax	A_a	A_b	
47.625	88.900	20.638	22.225	16.513	3.5	1.3	79.5	95.8	4400	5800	**369A**	**362A**		4.3	0.32	1.88	1.03	53.0	60.0	3.5	84.0	81.0	1.3	5.0	5.0	0.54
	88.900	25.400	25.400	19.050	3.5	3.3	91.3	116	4400	5900	**M804049**	**M804010**		1.8	0.55	1.10	0.6	56.0	63.0	3.5	85.0	77.0	3.3	6.5	4.5	0.65
	95.250	30.162	29.370	23.020	3.5	3.3	115	157	3300	4400	**HM804046**	**HM804810**		3.8	0.55	1.10	0.6	57.0	66.0	3.5	91.0	81.0	3.3	7.0	4.5	0.96
	96.838	21.000	21.946	15.875	0.8	0.8	84.2	108	3900	5200	**386A**	**382A**		3.0	0.35	1.69	0.93	55.0	56.0	0.8	92.0	89.0	0.8	6.0	5.5	0.72
	101.600	34.925	36.068	26.988	3.5	3.3	152	192	4000	5300	**528**	**522**		12.7	0.29	2.10	1.16	55.0	62.0	3.5	95.0	89.0	3.3	8.0	5.5	1.29
	104.775	30.162	29.317	24.605	4.8	3.3	126	166	3700	4900	**463**	**453X**		7.1	0.34	1.79	0.98	56.0	65.0	4.8	98.0	92.0	3.3	5.5	3.0	1.21
	104.775	30.162	29.317	24.605	0.8	3.3	126	166	3700	4900	**467**	**453X**		7.1	0.34	1.79	0.98	56.0	57.0	0.8	98.0	92.0	3.3	5.5	3.0	1.22
	104.775	30.162	30.958	23.812	3.5	3.3	142	189	3700	4900	**45282**	**45220**		8.1	0.33	1.8	0.99	57.0	63.0	3.5	99.0	93.0	3.3	6.5	5.0	1.26
	111.125	30.162	26.909	20.638	3.5	3.3	118	161	3200	4400	**55187C**	**55437**		-7.6	0.88	0.68	0.37	62.0	69.0	3.5	105.0	92.0	3.3	6.0	3.5	1.39
	112.712	30.162	26.909	20.638	3.5	3.3	118	161	3100	4300	**55187C**	**55443**		-7.6	0.88	0.68	0.37	62.0	69.0	3.5	106.0	92.0	3.3	6.0	3.5	1.47
48.412	95.250	30.162	29.370	23.020	2.3	3.3	115	157	3300	4400	**HM804848**	**HM804810**		3.8	0.55	1.10	0.6	57.0	63.0	2.3	91.0	81.0	3.3	7.0	4.5	0.95
	95.250	30.162	29.370	23.020	3.5	3.3	115	157	3300	4400	**HM804849**	**HM804810**		3.8	0.55	1.10	0.6	57.0	63.0	3.5	91.0	83.0	3.3	7.0	4.5	0.95
49.212	88.900	20.638	22.225	16.513	0.8	1.3	79.5	95.8	4400	5800	**365S**	**362A**		4.3	0.32	1.88	1.03	54.0	55.0	0.8	84.0	81.0	1.3	5.5	5.0	0.53
	104.775	36.512	36.512	28.575	3.5	3.3	159	223	3800	5100	**HM807044**	**HM807010**		7.4	0.49	1.23	0.68	63.0	69.0	3.5	100.00	89.0	3.3	7.0	4.0	1.52
	114.3	44.500	44.500	34.925	3.5	3.3	207	256	3800	5000	**65390**	**65320**		12.4	0.43	1.39	0.77	60.0	70.0	3.5	107.0	97.0	3.3	9.0	4.0	2.18
	114.3	44.500	44.500	36.068	3.5	3.3	228	290	3700	5000	**HH506348**	**HH506310**		13.5	0.40	1.49	0.82	61.0	71.0	3.5	107.0	97.0	3.3	9.5	6.0	2.34
49.987	92.075	24.608	25.400	19.845	2.3	0.8	91.6	130	4200	5600	**28579**	**28521**		4.8	0.38	1.59	0.87	56.0	60.0	2.3	87.0	83.0	0.8	5.0	3.5	0.71
50.000	82.000	21.500	21.500	17.000	3.0	0.5	75.2	104	4500	6000	**JLM104948**	**JLM104910**		5.3	0.31	1.97	1.08	55.0	60.0	3.0	78.0	76.0	0.5	5.5	4.0	0.41
	88.900	20.638	22.225	16.513	2.0	1.3	79.5	95.8	4400	5800	**365**	**362**		4.3	0.32	1.88	1.03	55.0	58.0	2.0	84.0	81.0	1.3	5.5	5.0	0.51
	88.900	20.638	22.225	16.513	2.3	1.3	79.5	95.8	4400	5800	**366**	**362A**		4.3	0.32	1.88	1.03	55.0	59.0	2.3	84.0	81.0	1.3	5.5	5.0	0.51
	90.000	28.000	28.000	23.000	3.0	2.5	115	154	4300	5800	**JM205149**	**JM205110**		7.6	0.33	1.82	1.00	57.0	62.0	3.0	85.0	80.0	2.5	6.5	4.5	0.74
	105.000	37.000	36.000	29.000	3.0	2.5	159	223	3800	5100	**JHM807045**	**JHM807012**		7.4	0.49	1.23	0.68	63.0	69.0	3.0	100.0	90.0	2.5	6.5	4.0	1.52
	110.000	22.000	21.996	18.824	0.8	1.3	91.6	126	3400	4500	**396**	**394A**		0.8	0.40	1.49	0.82	60.0	61.0	0.8	104.0	101.0	1.3	4.0	4.5	1.04
50.800	80.962	18.258	18.258	14.288	1.5	1.5	56.3	88.8	4600	6100	**L305649**	**L305610**		2.5	0.36	1.69	0.93	56.0	58.0	1.5	77.0	73.0	1.5	5.0	3.5	0.34
	82.55	21.590	22.225	16.510	3.5	1.3	75.2	104	4500	6000	**LM104949**	**LM104911**		5.8	0.31	1.97	1.08	55.0	62.0	3.5	78.0	75.0	1.3	5.5	4.5	0.42
	85.725	19.050	18.263	12.700	1.5	1.5	47.8	63.9	4400	5900	**18200**	**18337**		-1.9	0.57	1.06	0.58	56.0	59.0	1.5	81.0	76.0	1.5	5.0	3.0	0.39
	88.900	17.462	17.462	13.495	3.5	1.3	50.6	67.5	4400	5900	**18790**	**18724**		0.8	0.41	1.48	0.81	56.0	62.0	3.5	82.0	78.0	1.3	5.0	3.5	0.42
	88.900	20.638	22.225	16.153	1.5	1.3	79.5	95.8	4400	5900	**368**	**362A**		4.3	0.32	1.88	1.03	56.0	58.0	1.5	84.0	81.0	1.3	5.5	5.0	0.50
	88.900	20.638	22.225	16.153	3.5	1.3	79.5	95.8	4400	5800	**368A**	**362A**		4.3	0.32	1.88	1.03	56.0	62.0	1.5	84.0	81.0	1.3	5.5	5.0	0.50
	88.900	20.638	22.225	16.513	5.0	1.3	79.5	95.8	4400	5800	**370A**	**362A**		4.3	0.32	1.88	1.03	56.0	65.0	5.0	84.0	81.0	1.3	5.5	5.0	0.49
	92.075	24.608	25.400	19.845	3.5	0.8	91.6	130	4200	5600	**28580**	**28521**		4.8	0.38	1.59	0.87	57.0	63.0	3.5	87.0	83.0	0.8	5.0	3.5	0.69
	93.264	20.638	22.225	15.083	2.3	1.3	81.4	101	4200	5600	**375**	**374**		3.8	0.34	1.77	0.97	57.0	60.0	2.3	88.0	85.0	1.3	7.0	5.5	0.59
	93.264	30.162	30.302	23.812	3.5	3.3	113	153	4200	5500	**3780**	**3720**		8.1	0.34	1.77	0.97	58.0	64.0	3.5	88.0	82.0	3.3	7.0	3.5	0.84
	93.264	30.162	30.302	23.812	3.5	0.8	113	153	4200	5500	**3780**	**3730**		8.1	0.34	1.77	0.97	58.0	64.0	3.5	88.0	84.1	0.8	7.0	3.5	0.85
	95.250	27.783	28.575	22.225	3.5	2.3	120	161	4100	5400	**33889**	**33822**		7.6	0.33	1.82	1.00	58.0	64.0	3.5	90.0	85.0	2.3	6.5	5.5	0.85
	96.838	21.000	21.946	15.875	2.3	0.8	84.2	108	3900	5200	**385**	**382A**		3.0	0.35	1.69	0.93	60.0	61.0	2.3	92.0	89.0	0.8	6.0	5.5	0.67
	97.630	24.608	24.608	19.446	3.5	0.8	96.3	142	3900	5200	**28678**	**28622**		3.3	0.40	1.49	0.82	58.0	65.0	3.5	92.0	88.0	0.8	5.0	4.0	0.83
	98.425	30.162	30.302	23.812	3.5	3.3	113	153	4200	5500	**3870**	**3732**		8.1	0.34	1.77	0.97	58.0	64.0	3.5	90.0	84.0	3.3	7.0	3.5	0.98

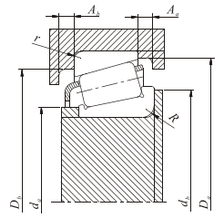
Remarks: 1.) When a is negative, it represents that the useful load center on the outer side of the bearing
2.)** represents that the inner race adopts compound fillet.

Estd. 1983 DPI BEARINGS

Single row taper roller bearing

Inch Series





d 50.800~55.575mm

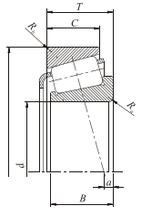
Main Dimension (mm)							Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.			Load center mm	Constant e	Axial load coefficient		Mounting dimensions (mm)								Weight (kg)
																		Shaft			Bearing housing			Retainer		
d	D	T	B	C	(R_a) min	(R_b) min	C_r	C_{0r}	Grease Lubrication	Oil Lubrication	Cone	Cup		a 1)		Y_1	Y_0	d_a	d_b	RMax	D_a	D_b	rMax	A_a	A_b	
50.800	101.600	31.750	31.750	25.400	3.5	3.3	123	155	3900	5200	**49585**	**49520**		7.1	0.40	1.50	0.82	59.0	66.0	3.5	96.0	88.0	3.3	6.5	4.0	1.11
	101.600	34.925	36.068	26.998	0.8	3.3	152	192	4000	5300	**529**	**522**		12.7	0.29	2.10	1.16	58.0	59.0	0.8	95.0	89.0	3.3	8.0	5.5	1.23
	101.600	34.925	36.068	26.998	3.5	3.3	152	192	4000	5300	**529X**	**522**		12.7	0.29	2.10	1.16	58.0	65.0	3.5	95.0	89.0	3.3	8.0	5.5	1.22
	104.775	30.162	30.958	23.812	6.4	3.3	142	189	3700	4900	**45284**	**25220**		8.1	0.33	1.80	0.99	59.0	71.0	6.4	99.0	93.0	3.3	6.5	5.0	1.19
	104.775	36.512	36.512	28.575	3.5	3.3	159	223	3900	5100	**HM807046**	**HM807010**		7.4	0.49	1.23	0.68	63.0	70.0	3.5	100.0	89.0	3.3	7.0	4.0	1.49
	104.775	36.512	36.512	28.575	3.5	3.3	158	202	3800	5100	**59200**	**59412**		9.7	0.40	1.49	0.82	61.0	68.0	3.5	99.0	92.0	3.3	7.0	4.0	1.39
	104.775	39.688	40.157	33.338	3.5	3.3	167	237	3800	5100	**4580**	**4535**		12.4	0.34	1.79	0.98	61.0	67.0	3.5	99.0	90.0	3.3	7.5	4.5	1.61
51.592	88.900	20.638	22.225	16.513	2.0	1.3	79.5	95.8	4400	5800	**368S**	**362A**		4.3	0.32	1.88	1.03	56.0	59.0	2.0	84.0	81.0	1.3	5.5	5.0	0.49
	92.075	24.608	25.400	19.845	3.5	0.8	91.6	130	4200	5600	**28584**	**28521**		4.8	0.38	1.59	0.87	58.0	65.0	3.5	87.0	83.0	0.8	5.0	3.5	0.66
	104.775	30.162	29.317	24.605	1.5	3.3	126	166	3700	4900	**468**	**453X**		7.1	0.34	1.79	0.98	60.0	62.0	1.5	98.0	92.0	3.3	5.5	3.0	1.12
53.975	88.900	19.050	19.050	13.492	2.3	2.0	60.6	81.8	4200	5600	**LM806649**	**LM806610**		-2.3	0.55	1.10	0.68	60.0	63.0	2.3	85.0	80.0	2.0	5.5	4.0	0.42
	95.250	27.783	28.575	22.225	1.5	0.8	120	161	4100	5400	**33895**	**33822**		7.6	0.33	1.82	1.00	60.0	63.0	1.5	90.0	86.0	0.8	6.5	5.5	0.79
	104.775	30.162	29.317	24.605	3.5	3.3	126	166	3700	4900	**456**	**453X**		7.1	0.34	1.79	0.98	61.0	68.0	3.5	98.0	92.0	3.3	5.5	3.0	1.1
	104.775	36.512	36.512	28.575	3.5	3.3	159	223	3800	5100	**HM807049**	**HM807010**		7.4	0.49	1.23	0.68	63.0	73.0	3.5	100.0	89.0	3.3	7.0	4.0	1.41
	104.775	39.688	40.157	33.338	3.5	3.3	167	237	3800	5100	**4595**	**4535**		12.3	0.34	1.79	0.98	63.0	70.0	3.5	99.0	90.0	3.3	7.5	4.5	1.54
	107.950	36.512	36.957	28.575	3.5	3.3	159	206	3800	5100	**539**	**532X**		12.2	0.30	2.02	1.11	61.0	68.0	3.5	100.0	94.0	3.3	8.0	4.0	1.44
	107.950	36.512	36.957	28.575	5.5	3.3	159	161	3800	5100	**539A**	**539A**		12.2	0.30	2.02	1.11	61.0	72.0	5.5	100.0	94.0	3.3	8.0	4.0	1.43
	117.475	33.338	31.750	23.812	3.5	3.3	138	166	3500	4600	**66212**	**66462**		0.3	0.63	0.96	0.53	67.0	73.0	3.5	110.0	100.0	3.3	7.0	3.0	1.58
	120.650	41.275	41.275	31.750	3.5	3.3	192	244	3500	4600	**621**	**612**		14.0	0.31	1.91	1.05	63.0	70.0	3.5	110.0	105.0	3.3	8.5	5.0	2.18
	122.238	33.338	31.750	23.812	3.5	3.3	143	178	3300	4300	**66584**	**66520**		-2.0	0.67	0.90	0.5	68.0	75.0	3.5	116.0	105.0	3.3	7.0	3.0	1.78
	122.238	43.658	43.764	36.512	3.5	3.3	219	327	3200	4300	**5578**	**5535**		12.2	0.36	1.67	0.92	67.0	73.0	3.5	116.0	106.0	3.3	7.5	4.0	2.59
	123.825	36.512	32.791	25.400	3.5	3.3	167	208	2900	4000	**72212C**	**72487**		-2.0	0.74	0.81	0.45	67.0	79.0	3.5	116.0	102.0	3.3	8.0	3.5	2.12
	123.825	38.100	36.678	30.162	3.5	3.3	177	248	3200	4200	**557S**	**552A**		9.4	0.35	1.73	0.95	65.0	71.0	3.5	116.0	109.0	3.3	7.5	2.5	2.22
	127.000	44.450	44.450	34.925	3.5	3.3	225	297	3300	4400	**65212**	**65500**		9.4	0.49	1.23	0.68	71.0	77.0	3.5	119.0	107.0	3.3	8.5	4.0	2.86
	130.175	36.512	33.338	23.812	3.5	3.3	154	183	2600	3700	**HM911242**	**HM911212**		-5.3	0.82	0.73	0.40	74.0	79.0	3.5	123.6	109.0	3.3	8.5	4.0	2.22
54.988	104.775	30.162	29.317	24.605	2.3	3.3	126	166	3700	4900	**466**	**453X**		7.1	0.34	1.79	0.98	62.0	66.0	2.3	98.0	92.0	3.3	5.5	3.0	1.08
54.991	135.755	53.975	56.007	44.450	3.5	3.3	298	404	3000	4000	**6381**	**6320**		19.3	0.32	1.85	1.02	70.0	76.0	3.5	126.0	117.0	3.3	9.0	6.0	4.08
55.000	90.000	23.000	23.000	18.500	1.5	0.5	85.0	123	4200	5500	**JLM506849**	**JLM506810**		2.8	0.40	1.49	0.82	61.0	63.0	1.5	86.0	82.0	0.5	5.0	3.5	0.55
	95.000	29.000	29.000	23.500	1.5	2.5	121	168	4000	5300	**JM207049**	**JM207010**		7.6	0.33	1.79	0.98	62.0	64.0	1.5	91.0	85.0	2.5	6.5	4.5	0.84
	96.838	21.000	21.946	15.875	2.3	0.8	84.2	108	3900	5200	**385**	**382A**		3.0	0.35	1.69	0.93	61.0	65.0	2.3	92.0	89.0	0.8	6.0	5.5	0.61
	96.838	21.000	21.946	15.875	3.5	0.8	84.2	108	3900	5200	**385X**	**382A**		3.0	0.35	1.69	0.93	61.0	67.0	3.5	92.0	89.0	0.8	6.0	5.5	0.61
	110.000	39.000	39.000	32.000	3.0	2.5	194	251	3600	4900	**JH307749**	**JH307710**		11.7	0.35	1.73	0.95	64.0	71.0	3.0	104.0	97.0	2.5	9.0	6.0	1.69
55.562	97.630	24.608	24.608	19.446	3.5	0.8	96.3	142	3900	5200	**28680**	**28622**		3.4	0.40	1.49	0.82	62.0	68.0	3.5	92.0	88.0	0.8	5.0	4.0	0.75
	127.000	36.512	36.512	26.988	3.5	3.3	179	256	3000	4000	**HM813840**	**HM813810**		3.8	0.50	1.20	0.68	70.0	76.0	3.5	121.0	111.0	3.3	8.0	4.0	2.73
55.575	96.838	21.000	21.946	15.875	2.3	0.8	84.2	108	3900	5200	**389**	**382A**		3.0	0.35	1.69	0.93	61.0	65.0	2.3	92.0	89.0	0.8	6.0	5.5	0.60

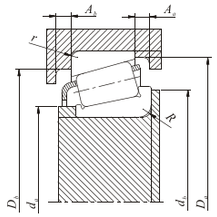
Remarks: 1.) When a is negative, it represents that the useful load center on the outer side of the bearing
2.)** represents that the inner race adopts compound fillet.

Estd. 1983 DPI BEARINGS

Single row taper roller bearing

Inch Series





***d* 57.150~61.912mm**

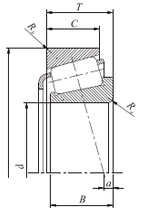
Main Dimension (mm)							Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.			Load center mm	Constant	Axial load coefficient		Mounting dimensions (mm)								Weight (kg)
																		Shaft			Bearing housing			Retainer		
d	*D*	*T*	*B*	*C*	(R_a) min	(R_b) min	C_r	C_{0r}	*Grease Lubrication*	*Oil Lubrication*	*Cone*	*Cup*		*a* [1]	*e*	Y_1	Y_0	d_a	d_b	*RMax*	D_a	D_b	*rMax*	A_a	A_b	
57.150	96.838	21.000	21.946	15.875	2.3	0.8	84.2	108	3900	5200	**387**	**382A**		3.0	0.35	1.69	0.93	62.0	66.0	2.3	92.0	89.0	0.8	6.0	5.5	0.58
	96.838	21.000	21.946	15.875	3.5	0.8	84.2	108	3900	5200	**387A**	**382A**		3.0	0.35	1.69	0.93	62.0	69.0	3.5	92.0	89.0	0.8	6.0	5.5	0.57
	96.838	21.000	21.946	15.875	5.0	0.8	84.2	108	3900	5200	**387AS**	**382A**		3.0	0.35	1.69	0.93	62.0	72.0	5.0	92.0	89.0	0.8	6.0	5.5	0.56
	96.838	21.000	21.946	15.875	0.8	0.8	84.2	108	3900	5200	**387S**	**382A**		3.0	0.35	1.69	0.93	62.0	63.0	0.8	92.0	89.0	0.8	6.0	5.5	0.58
	98.425	21.000	21.946	17.826	3.5	0.8	84.2	108	3900	5200	**387A**	**382**		3.0	0.35	1.69	0.93	62.0	69.0	3.5	92.0	90.0	0.8	4.0	4.5	0.62
	104.775	30.162	29.317	24.605	2.3	3.3	126	166	3700	4900	**462**	**453X**		7.1	0.34	1.79	0.98	63.0	67.0	2.3	98.0	92.0	3.3	5.5	3.0	1.04
	104.775	30.162	29.317	24.605	3.5	3.3	126	166	3700	4900	**469**	**453X**		7.1	0.34	1.79	0.98	63.0	70.0	3.5	98.0	92.0	3.3	5.5	3.0	1.03
	104.775	30.162	30.958	23.812	6.4	0.8	142	189	3700	4900	**45291**	**45221**		8.1	0.33	1.80	0.99	65.0	76.0	6.4	99.0	95.0	0.8	6.5	5.0	1.06
	112.712	30.162	30.048	23.812	3.5	3.3	129	191	3400	4500	**3979**	**3920**		4.6	0.40	1.49	0.82	66.0	72.0	3.5	106.0	99.0	3.3	6.5	3.5	1.36
	112.712	30.162	30.162	23.812	3.5	3.3	155	224	3300	4500	**39580**	**39520**		6.6	0.34	1.77	0.97	66.0	72.0	3.5	107.0	101.0	3.3	7.0	5.0	1.37
	112.712	30.162	30.162	23.812	8.0	3.3	155	224	3300	4500	**39581**	**39520**		6.6	0.34	1.77	0.97	66.0	81.0	8.0	107.0	101.0	3.3	7.0	5.0	1.33
	117.475	30.162	30.162	23.812	3.5	3.3	128	197	3200	4200	**33225**	**33462**		2.8	0.44	1.38	0.76	68.0	74.0	3.5	112.0	104.0	3.3	6.5	3.5	1.53
	120.650	41.275	41.275	31.750	3.5	3.3	192	244	3500	4600	**623**	**612**		14.0	0.31	1.91	1.05	66.0	72.0	3.5	110.0	105.0	3.3	8.5	5.0	2.09
	123.825	36.512	32.791	25.400	3.5	3.3	167	208	2900	4000	**72225C**	**72487**		-2.0	0.74	0.81	0.45	67.0	81.0	3.5	116.0	102.0	3.3	8.0	3.5	2.05
	127.000	44.450	44.450	34.925	3.5	3.3	225	297	3300	4400	**65225**	**65500**		9.4	0.49	1.23	0.68	71.0	80.0	3.5	119.0	107.0	3.3	8.5	4.0	2.68
	140.030	36.512	33.236	23.520	3.5	2.3	158	193	2500	3500	**78225**	**78551**		-7.9	0.87	0.69	0.38	77.0	83.0	3.5	132.0	117.0	2.3	9.0	4.0	2.56
57.531	96.838	21.000	21.946	15.875	3.5	0.8	84.2	108	3900	5200	**388A**	**382A**		3.0	0.35	1.69	0.93	63.0	69.0	3.5	92.0	89.0	0.8	6.0	5.5	0.57
59.972	122.238	33.338	31.750	23.812	0.8	3.3	143	178	3300	4300	**66589**	**66520**		-2.0	0.67	0.90	0.50	73.0	74.0	0.8	116.0	105.0	3.3	7.0	3.0	1.65
60.000	95.000	24.000	24.000	19.000	5.0	2.5	90.4	135	3900	5200	**JLM508748**	**JLM508710**		2.8	0.40	1.49	0.82	66.0	75.0	5.0	91.0	85.0	2.5	5.5	3.5	0.63
	107.950	25.400	25.400	19.050	3.5	3.3	102	158	3300	4400	**29580**	**29520**		0.8	0.46	1.31	0.72	68.0	75.0	3.5	103.0	96.0	3.3	6.0	3.0	0.84
	110.000	22.000	21.996	18.824	0.8	1.3	91.6	126	2500	3500	**397**	**394A**		0.8	0.4	1.49	0.82	68.0	69.0	0.8	104.0	101.0	1.3	4.0	4.5	0.89
60.325	100.000	25.400	25.400	19.845	3.5	3.3	98.2	149	3700	4900	**28985**	**28921**		2.5	0.43	1.41	0.78	67.0	73.0	3.5	96.00	89.00	3.3	5.5	3.0	0.75
	101.600	25.400	25.400	19.845	3.5	3.3	98.2	149	3700	4900	**28985**	**28920**		2.5	0.43	1.41	0.78	67.0	73.0	3.5	97.00	90.00	3.3	5.5	3.0	0.79
	122.238	43.658	43.764	36.512	3.5	3.3	219	327	3200	4300	**5583**	**5535**		12.2	0.36	1.67	0.92	72.0	78.0	3.5	116.0	106.0	3.3	7.5	4.0	2.40
	127.000	36.512	36.512	26.988	3.5	3.3	179	256	3000	4000	**HM813841**	**HM813810**		3.8	0.50	1.20	0.66	73.0	80.0	3.5	121.0	111.0	3.3	8.0	4.0	2.61
	127.000	36.512	36.512	26.988	1.5	3.3	179	256	3000	4000	**HM813841A**	**HM813810**		3.8	0.50	1.20	0.66	73.0	76.0	1.5	121.0	111.0	3.3	8.0	4.0	2.61
	127.000	44.450	44.450	34.925	3.5	3.3	225	297	3300	4400	**65237**	**65500**		9.4	0.49	1.23	0.68	71.0	82.0	3.5	119.0	107.0	3.3	8.5	4.0	2.66
	127.000	44.450	44.450	34.925	1.5	3.3	225	297	3300	4400	**65237A**	**65500**		9.4	0.49	1.23	0.68	71.0	78.0	1.5	119.0	107.0	3.3	8.5	4.0	2.59
	130.175	36.512	33.338	23.812	5.0	3.3	154	183	2600	3700	**HM911245**	**HM911210**		-5.3	0.82	0.73	0.40	74.0	87.0	5.0	124.0	109.0	3.3	8.5	4.0	2.06
	136.525	46.038	46.038	36.512	3.5	3.3	249	405	2800	3700	**H715332**	**H715311**		8.6	0.47	1.27	0.70	78.0	84.0	3.5	132.0	118.0	3.3	8.0	4.5	3.55
61.912	110.000	22.000	21.996	18.824	0.8	1.3	91.6	126	3400	4500	**392**	**394A**		0.8	0.40	1.49	0.82	69.0	70.0	0.8	104.5	101.0	1.3	4.0	4.5	0.86
	130.175	36.512	33.338	23.812	3.5	3.3	154	183	2600	3700	**HM911249**	**HM911210**		-5.3	0.82	0.73	0.40	74.0	85.0	3.5	123.6	109.0	3.3	8.5	4.0	2.03
	146.050	41.275	39.688	25.400	3.5	3.3	213	256	2300	3300	**H913842**	**H913810**		-4.3	0.78	0.77	0.42	82.0	90.0	3.5	138.0	124.0	3.3	11.0	5.5	3.11

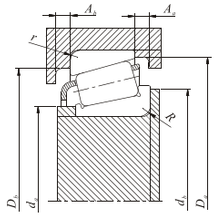
Remarks: 1.) When a is negative, it represents that the useful load center on the outer side of the bearing
2.)** represents that the inner race adopts compound fillet.

Estd. 1983 DPI BEARINGS

Single row taper roller bearing

Inch Series





***d* 63.500~66.675mm**

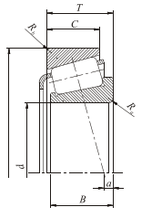
Main Dimension (mm)							Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.			Load center mm	Constant e	Axial load coefficient		Mounting dimensions (mm)								Weight (kg)
																		Shaft			Bearing housing			Retainer		
d	*D*	*T*	*B*	*C*	(R_a) min	(R_b) min	C_r	C_{0r}	*Grease Lubrication*	*Oil Lubrication*	*Cone*	*Cup*		*a* [1]		Y_1	Y_0	d_a	d_b	*RMax*	D_a	D_b	*rMax*	A_a	A_b	
63.500	107.950	25.400	25.400	19.050	1.5	3.3	102	158	3400	4500	**29586**	**29520**		0.8	0.46	1.31	0.72	71.0	73.0	1.5	103.0	96.0	3.3	6.0	3.0	0.92
	110.000	22.000	21.996	18.824	1.5	1.3	91.6	126	3400	4500	**390A**	**394A**		0.8	0.40	1.49	0.82	70.0	73.0	1.5	104.0	101.0	1.3	4.0	4.5	0.83
	110.000	22.000	21.996	18.824	3.5	1.3	91.6	126	3400	4500	**395**	**394A**		0.8	0.40	1.49	0.82	70.0	77.0	3.5	104.0	101.0	1.3	4.0	4.5	0.82
	110.000	25.400	25.400	19.050	3.5	1.3	102	158	3400	4500	**29585**	**29521**		0.8	0.46	1.31	0.72	71.0	77.0	3.5	104.0	99.0	1.3	6.0	3.0	0.98
	112.712	30.162	30.162	23.812	3.5	3.3	155	224	3300	4500	**39585**	**39520**		0.8	0.46	1.31	0.97	71.0	77.0	3.5	107.0	101.0	3.3	7.0	5.0	1.22
	120.000	29.794	29.007	24.237	0.8	2.0	133	186	3200	4200	**477**	**472**		4.1	0.38	1.56	0.86	72.0	73.0	0.8	114.0	107.0	2.0	6.5	4.0	1.46
	122.238	38.100	38.354	29.718	3.5	3.3	209	279	3200	4300	**HM212046**	**HM212011**		10.9	0.34	1.78	0.98	73.0	80.0	3.5	116.0	108.0	3.3	9.0	6.5	1.94
	122.238	43.658	43.764	36.512	3.5	3.3	219	327	3200	4300	**5584**	**5535**		12.2	0.36	1.67	0.92	75.0	81.0	3.5	116.0	106.0	3.3	7.5	4.0	2.29
	127.000	36.512	36.170	28.575	3.5	3.3	182	263	3000	4000	**565**	**563**		8.1	0.36	1.65	0.91	73.0	80.0	3.5	120.0	112.0	3.3	7.5	4.0	2.08
	135.775	53.975	56.007	44.450	4.3	3.3	298	404	3000	4000	**6382**	**6320**		19.3	0.32	1.85	1.02	77.0	84.0	4.3	126.0	117.0	3.3	9.0	6.0	3.68
	136.525	36.512	33.236	23.520	2.3	3.3	158	193	2500	3500	**78250**	**78537**		-7.9	0.87	0.69	0.38	79.0	85.0	2.3	130.0	115.0	3.3	9.0	4.0	2.26
	136.525	41.275	41.275	31.750	3.5	3.3	252	335	2900	3800	**H414235**	**H414210**		10.9	0.36	1.67	0.92	78.0	82.0	3.5	129.0	121.0	3.3	9.0	6.0	2.91
64.986	112.712	30.162	30.924	23.812	2.3	3.3	155	224	3300	4500	**39586**	**39520**		6.6	0.34	1.77	0.97	72.0	76.0	2.3	107.0	101.0	3.3	7.0	5.0	1.20
65.000	105.000	24.000	23.000	18.500	3.0	1.0	100	139	3500	4700	**JLM710949**	**JLM710910**		0.3	0.45	1.32	0.73	71.0	77.0	3.0	101.0	96.0	1.0	6.5	4.0	0.72
	110.000	28.000	28.000	22.500	3.0	2.5	131	195	3400	4600	**JM511946**	**JM511910**		3.3	0.40	1.49	0.82	72.0	78.0	3.0	105.0	99.0	2.5	6.5	4.5	1.05
	120.000	39.000	38.500	32.000	3.0	2.5	207	283	3200	4300	**JH211749**	**JH211710**		10.7	0.34	1.78	0.98	74.0	80.0	3.0	114.0	107.0	2.5	9.0	6.0	1.86
	120.000	39.000	38.500	32.000	7.0	2.5	207	283	3200	4300	**JH211749A**	**JH211710**		10.7	0.34	1.78	0.98	74.0	88.0	7.0	114.0	107.0	2.5	9.0	6.0	1.83
65.088	135.755	53.975	56.007	44.450	3.5	3.3	298	404	3000	4000	**6379**	**6320**		19.3	0.32	1.85	1.02	77.0	84.0	3.5	126.0	117.0	3.3	9.0	6.0	3.61
	136.525	46.038	46.038	36.512	3.5	3.3	249	405	2800	3700	**H715340**	**H7154311**		8.6	0.47	1.27	0.70	82.0	88.0	3.5	132.0	118.0	3.3	8.0	4.5	3.38
65.883	122.238	43.658	43.764	36.512	3.5	3.3	219	327	3200	4300	**5595**	**5535**		12.2	0.36	1.67	0.92	77.0	83.0	3.5	116.0	106.0	3.3	7.5	4.0	2.21
66.675	110.000	22.000	21.996	18.824	0.8	1.3	91.6	126	3400	4500	**395A**	**394A**		0.8	0.40	1.49	0.82	73.0	73.0	0.8	104.0	101.0	1.3	4.0	4.5	1.06
	110.000	22.000	21.996	18.824	3.5	1.3	91.6	126	3400	4500	**395S**	**394A**		0.8	0.40	1.49	0.82	73.0	79.0	3.5	104.0	101.0	1.3	4.0	4.5	0.78
	112.712	30.162	30.048	23.812	3.5	0.8	129	191	3400	4500	**3984**	**3925**		4.6	0.40	1.49	0.82	74.0	80.0	3.5	106.0	101.0	0.8	6.5	3.5	1.14
	112.712	30.162	30.162	23.812	3.5	3.3	155	224	3300	4500	**39590**	**39520**		6.6	0.34	1.77	0.97	74.0	80.0	3.5	107.0	101.0	3.3	7.0	5.0	1.13
	112.712	30.162	30.162	23.812	3.5	0.8	155	224	3300	4500	**39590**	**39521**		6.6	0.34	1.77	0.97	74.0	80.0	3.5	107.0	103.0	0.8	7.0	5.0	1.15
	122.238	38.100	38.354	29.718	3.5	1.5	209	279	3200	4300	**HM212049**	**HM212010**		10.9	0.34	1.78	0.98	75.0	82.0	3.5	116.0	110.0	1.5	9.0	6.5	1.85
	127.000	36.512	36.512	26.988	3.5	1.5	179	256	3000	4000	**HM813844**	**HM813811**		3.8	0.50	1.20	0.66	78.0	85.0	3.5	121.0	113.0	1.5	8.0	4.0	1.99
	130.175	41.275	41.275	31.750	3.5	3.3	216	298	3000	3900	**641**	**633**		11.2	0.36	1.66	0.91	77.0	83.0	3.5	124.0	116.0	3.3	8.5	5.0	2.38
	135.755	53.975	56.007	44.450	4.3	3.3	298	404	3000	4000	**6386**	**6320**		19.3	0.32	1.85	1.02	77.0	87.0	4.3	126.0	117.0	3.3	9.0	6.0	3.54
	135.755	53.975	56.007	44.450	6.4	3.3	298	404	3000	4000	**6389**	**6320**		19.3	0.32	1.85	1.02	77.0	91.0	6.4	126.0	117.0	3.3	9.0	6.0	3.52
	136.525	41.275	41.275	31.750	3.5	3.3	252	335	2900	3800	**H414242**	**H414210**		10.9	0.36	1.67	0.92	81.0	85.0	3.5	129.0	121.0	3.3	9.0	6.0	2.81
	136.525	46.038	46.038	36.512	3.5	3.3	252	335	2800	3700	**H715341**	**H715311**		8.6	0.47	1.27	0.70	84.0	90.0	3.5	132.0	118.0	3.3	8.0	4.5	3.26
	177.800	57.150	53.975	37.308	3.5	3.3	352	413	2100	2900	**HH914449**	**HH914442**		0.3	0.80	0.75	0.41	85.0	106.0	3.5	165.0	146.0	3.3	14.0	6.0	6.73

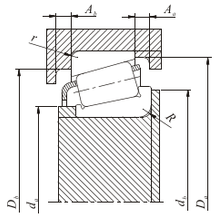
Remarks: 1.) When a is negative, it represents that the useful load center on the outer side of the bearing
2.)** represents that the inner race adopts compound fillet.

Estd. 1983 DPI BEARINGS

Single row taper roller bearing

Inch Series





d 68.262~70.000mm

Main Dimension (mm)							Basic Load Rating (kN)		Limit Speed (r/min)		Bearing No.			Load center mm	Constant	Axial load coefficient		Mounting dimensions (mm)								Weight (kg)
																		Shaft			Bearing housing			Retainer		
d	*D*	*T*	*B*	*C*	(R_a) min	(R_b) min	C_r	C_{0r}	*Grease Lubrication*	*Oil Lubrication*	*Cone*	*Cone*	*Cup*	a [1]	*e*	Y_1	Y_0	d_a	d_b	*RMax*	D_a	D_b	*rMax*	A_a	A_b	
68.262	110.000	22.000	21.996	18.824	2.3	1.3	91.6	126	3400	4500	**399A**	**394A**		0.8	0.40	1.49	0.82	74.0	78.0	2.3	104.0	101.0	1.3	4.0	4.5	0.74
	110.000	22.000	21.996	18.824	5.0	1.3	91.6	126	3400	4500	**399AS**	**94A**		0.8	0.40	1.49	0.82	74.0	83.0	5.0	104.0	101.0	1.3	4.0	4.5	0.72
	117.745	30.162	30.162	23.812	3.5	3.3	128	197	3200	4200	**33269**	**33462**		2.8	0.44	1.38	0.76	76.0	82.0	3.5	112.0	104.0	3.3	6.5	3.5	1.29
	127.000	36.512	36.170	28.575	3.5	3.3	182	263	3000	4000	**570**	**563**		8.1	0.36	1.65	0.91	77.0	83.0	3.5	120.0	112.0	3.3	7.5	4.0	1.94
	136.525	41.275	41.275	31.750	3.5	3.3	252	335	2900	3800	**H414245**	**H414210**		10.9	0.36	1.67	0.92	82.0	86.0	3.5	129.0	121.0	3.3	9.0	6.0	2.75
	136.525	46.038	46.038	36.512	3.5	3.3	249	405	2800	3700	**H715343**	**H715311**		8.6	0.47	1.27	0.70	84.0	90.0	3.5	132.0	118.0	3.3	8.0	4.5	3.26
	152.400	47.625	46.038	31.750	3.5	3.3	264	306	2700	3600	**9185**	**9121**		3.8	0.66	0.91	0.50	81.0	94.0	3.5	145.0	130.0	3.3	11.5	6.5	3.83
	161.925	49.212	46.038	31.750	3.5	3.3	275	330	2100	2900	**9278**	**9220**		0.0	0.71	0.85	0.47	90.4	97.0	3.5	153.0	138.0	3.3	12.0	4.5	4.64
69.850	99.271	17.000	16.000	13.000	1.5	1.5	45.2	75.0	3500	4700	**LL713149**	**LL713110**		-4.6	0.46	1.29	0.75	75.0	77.0	1.5	95.0	91.0	1.5	5.0	1.0	0.38
	112.712	22.225	21.996	15.875	1.5	0.8	93.4	131	3300	4400	**LM613449**	**LM613410**		0.0	0.42	1.44	0.79	76.0	78.0	1.5	107.0	104.0	0.8	7.0	4.5	0.77
	112.712	25.400	25.400	19.050	1.5	3.3	102	166	3200	4300	**29675**	**29620**		-1.0	0.49	1.23	0.68	77.0	80.0	1.5	109.0	101.0	3.3	6.0	3.5	0.95
	117.745	30.162	30.162	23.812	3.5	3.3	128	197	3200	4200	**33275**	**33462**		2.8	0.44	1.38	0.76	77.0	84.0	3.5	112.0	104.0	3.3	6.5	3.5	1.25
	120.000	29.002	29.007	23.444	3.5	3.3	133	186	3200	4200	**482**	**472A**		4.1	0.38	1.56	0.86	77.0	83.0	3.5	114.0	106.0	3.3	6.5	5.0	1.27
	120.000	29.794	29.007	24.237	3.5	2.0	133	186	3200	4200	**482**	**472**		4.1	0.38	1.56	0.86	77.0	83.0	3.5	114.0	107.0	2.0	6.5	4.0	1.30
	120.000	32.545	32.545	26.195	3.5	3.3	166	249	3100	4200	**47487**	**47420**		6.4	0.36	1.67	0.92	78.0	84.0	3.5	114.0	107.0	3.3	6.5	4.0	1.46
	120.650	32.545	32.545	26.195	3.5	0.5	166	249	3100	4200	**47487**	**47420A**		6.4	0.36	1.67	0.92	78.0	84.0	3.5	114.0	109.0	0.5	6.5	4.0	1.47
	127.000	36.512	36.170	28.575	3.5	3.3	182	263	3000	4000	**566**	**563**		8.1	0.36	1.65	0.91	78.0	85.0	3.5	120.0	112.0	3.3	7.5	4.0	1.89
	146.050	41.275	39.688	25.400	3.5	3.3	213	256	2300	3300	**H913849**	**H913810**		-4.3	0.78	0.77	0.42	82.0	95.0	3.5	138.0	124.0	3.3	11.0	5.5	2.85
	146.050	41.275	41.275	31.750	3.5	3.3	229	335	2600	3400	**655**	**653**		7.9	0.41	1.47	0.81	82.0	88.0	3.5	139.0	131.0	3.3	8.0	5.0	3.24
	150.089	44.450	46.672	36.512	3.5	3.3	294	417	2500	3400	**745A**	**742**		11.9	0.33	1.84	1.01	82.0	88.0	3.5	142.0	134.0	3.3	9.5	7.0	3.88
	168.275	53.975	56.363	41.275	3.5	3.3	379	522	2300	3100	**835**	**832**		18.5	0.30	2.00	1.10	84.0	91.0	3.5	155.0	149.0	3.3	11.0	7.5	6.15
69.952	121.442	24.608	23.012	17.462	2.0	2.0	94.6	137	3000	4000	**34274**	**34478**		-1.5	0.45	1.33	0.73	78.0	81.0	2.0	116.0	110.0	2.0	7.0	3.0	1.08
70.000	110.000	26.000	25.000	20.500	1.0	2.5	106	168	3300	4400	**JLM812049**	**JLM813010**		-0.3	0.49	1.23	0.68	77.0	78.0	1.0	105.0	98.0	2.5	6.0	4.0	0.88
	115.000	29.000	29.000	23.000	3.0	2.5	139	198	3200	4300	**JM612949**	**JM612910**		2.5	0.43	1.39	0.77	77.0	83.0	3.0	110.0	103.0	2.5	7.5	5.0	1.13

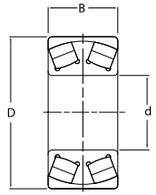
Remarks: 1.) When a is negative, it represents that the useful load center on the outer side of the bearing
2.)** represents that the inner race adopts compound fillet.

Spherical Roller Bearing

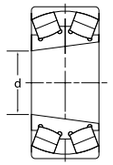
Spherical Roller Bearings feature a large load rating capacity and self aligning capability. The spherical roller bearing is also ideal for low or medium speed applications which involve heavy or impact loading.

DPI Spherical Roller Bearings are made under the most stringent quality benchmarks. Our large range of bearings provides you with all the requirements that you need for your industrial needs.
The standard cages used are pressed steel cages or with copper alloy machined cage.
For details on boundary dimensions and specifications please refer to the tables overleaf.

Spherical Roller Bearing



Cylindrical bore

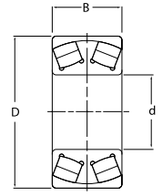


Tapered bore (k)

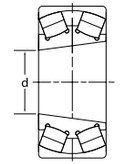
d 20.0~60.0mm

Boundary dimensions (mm)			Basic load ratings(kN)		Speed ratings (rpm)		Bearing No.		Weight (kg)
d	D	B	Dynamic C_r	Static C_{or}	Grease	Oil	Cylindrical bore	Tapered bore	
20.0	52.0	15.0	34.0	33.5	7300	9000	**21304CCW33**	**21304CCKW33**	0.18
25.0	52.0	18.0	45.5	48.0	7000	9000	**22205MBW33**	**22205MBKW33**	0.19
	52.0	18.0	45.5	48.0	7000	9000	**22205CCW33**	**22205CCKW33**	0.19
	62.0	17.0	46.0	47.5	6200	7800	**21305CCW33**	**21305CCKW33**	0.29
30.0	62.0	20.0	61.0	65.0	6000	7500	**22206MBW33**	**22206MBKW33**	0.30
	62.0	20.0	61.0	65.0	6000	7500	**22206CCW33**	**22206CCKW33**	0.30
	72.0	19.0	59.5	62.5	5300	6600	**21306CCW33**	**21306CCKW33**	0.43
35.0	72.0	23.0	80.5	88.5	5000	6300	**22207MBW33**	**22207MBKW33**	0.46
	72.0	23.0	80.5	88.5	5000	6300	**22207CCW33**	**22207CCKW33**	0.46
	80.0	21.0	69.5	76.0	4700	5900	**21307CCW33**	**21307CCKW33**	0.57
	80.0	31.0	104.0	107.0	6000	7700	**22307MBW33**	**22307MBKW33**	0.78
40.0	80.0	23.0	90.5	102.0	4500	5600	**22208MBW33**	**22208MBKW33**	0.56
	80.0	23.0	90.5	102.0	4500	5600	**22208CCW33**	**22208CCKW33**	0.56
	90.0	23.0	85.5	95.5	4000	5200	**21308CCW33**	**21308CCKW33**	0.78
	90.0	33.0	135.0	151.0	4000	5300	**22308CCW33**	**22308CCKW33**	1.07
	90.0	33.0	135.0	151.0	4000	5300	**22308MBW33**	**22308MBKW33**	1.07
45.0	85.0	23.0	95.5	110.0	4300	5300	**22209MBW33**	**22209MBKW33**	0.61
	85.0	23.0	95.5	110.0	4300	5300	**22209CCW33**	**22209CCKW33**	0.61
	100.0	25.0	108.0	124.0	3700	4600	**21309CCW33**	**21309CCKW33**	1.05
	100.0	36.0	165.0	182.0	3500	4800	**22309CCW33**	**22309CCKW33**	1.41
	100.0	36.0	165.0	182.0	3500	4800	**22309MBW33**	**22309MBKW33**	1.41
50.0	90.0	23.0	102.0	122.0	3800	4800	**22210MBW33**	**22210MBKW33**	0.65
	90.0	23.0	102.0	122.0	3800	4800	**22210CCW33**	**22210CCKW33**	0.65
	110.0	27.0	128.0	151.0	3300	4200	**21310CCW33**	**21310CCKW33**	1.36
	110.0	40.0	203.0	235.0	3200	4300	**22310CCW33**	**22310CCKW33**	1.92
	110.0	40.0	203.0	235.0	3200	4300	**22310MBW33**	**22310MBKW33**	1.92
55.0	100.0	25.0	123.0	144.0	3400	4300	**22211MBW33**	**22211MBKW33**	0.88
	100.0	25.0	123.0	144.0	3400	4300	**22211CCW33**	**22211CCKW33**	0.88
	120.0	29.0	144.0	165.0	3000	4100	**21311CCW33**	**21311CCKW33**	1.70
	120.0	43.0	235.0	263.0	3000	3800	**22311CCW33**	**22311CCKW33**	2.40
	120.0	43.0	235.0	263.0	3000	3800	**22311MBW33**	**22311MBKW33**	2.40
60.0	110.0	28.0	151.0	179.0	3200	4000	**22212MBW33**	**22212MBKW33**	1.20
	110.0	28.0	151.0	179.0	3200	4000	**22212CCW33**	**22212CCKW33**	1.20
	130.0	31.0	168.0	193.0	2800	3700	**21312CCW33**	**21312CCKW33**	2.10
	130.0	46.0	281.0	330.0	2800	3600	**22312CCW33**	**22312CCKW33**	3.05
	130.0	46.0	281.0	330.0	2800	3600	**22312MBW33**	**22312MBKW33**	3.05

Spherical Roller Bearing



Cylindrical bore

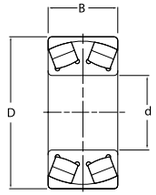


Tapered bore (k)

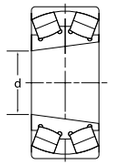
d 65.0~95.0mm

Boundary dimensions (mm)			Basic load ratings(kN)		Speed ratings (rpm)		Bearing No.		Weight (kg)
d	D	B	Dynamic C_r	Static C_{or}	Grease	Oil	Cylindrical bore	Tapered bore	
65.0	120.0	31.0	177.0	209.0	2800	3600	**22213MBW33**	**22213MBKW33**	1.56
	120.0	31.0	177.0	209.0	2800	3600	**22213CCW33**	**22213CCKW33**	1.56
	140.0	33.0	194.0	232.0	2600	3400	**21313CCW33**	**21313CCKW33**	2.60
	140.0	48.0	300.0	355.0	2400	3200	**22313CCW33**	**22313CCKW33**	3.67
	140.0	48.0	300.0	355.0	2400	3200	**22313MBW33**	**22313MBKW33**	3.67
70.0	125.0	31.0	185.0	220.0	2600	3400	**22214MBW33**	**22214MBKW33**	1.65
	125.0	31.0	185.0	220.0	2600	3400	**22214CCW33**	**22214CCKW33**	1.65
	150.0	35.0	215.0	260.0	2400	3200	**21314CCW33**	**21314CCKW33**	3.10
	150.0	51.0	345.0	415.0	2200	3000	**22314CCW33**	**22314CCKW33**	4.45
	150.0	51.0	345.0	415.0	2200	3000	**22314MBW33**	**22314MBKW33**	4.45
75.0	130.0	31.0	191.0	234.0	2400	3200	**22215MBW33**	**22215MBKW33**	1.74
	130.0	31.0	191.0	234.0	2400	3200	**22215CCW33**	**22215CCKW33**	1.74
	160.0	37.0	245.0	298.0	2200	3000	**21315CCW33**	**21315CCKW33**	3.80
	160.0	55.0	395.0	475.0	2000	2800	**22315CCW33**	**22315CCKW33**	5.44
	160.0	55.0	395.0	475.0	2000	2800	**22315MBW33**	**22315MBKW33**	5.44
80.0	140.0	33.0	215.0	269.0	2200	3000	**22216MBW33**	**22216MBKW33**	2.19
	140.0	33.0	215.0	269.0	2200	3000	**22216CCW33**	**22216CCKW33**	2.19
	140.0	44.5	241.0	335.0	2200	2900	**23216MBW33**	**23216MBKW33**	2.95
	170.0	39.0	275.0	339.0	2100	2800	**21316CCW33**	**21316CCKW33**	4.50
	170.0	58.0	430.0	520.0	1900	2600	**22316CCW33**	**22316CCKW33**	6.42
	170.0	58.0	430.0	520.0	1900	2600	**22316MBW33**	**22316MBKW33**	6.42
85.0	150.0	36.0	255.0	320.0	2000	2800	**22217MBW33**	**22217MBKW33**	2.75
	150.0	36.0	255.0	320.0	2000	2800	**22217CCW33**	**22217CCKW33**	2.75
	150.0	49.2	285.0	405.0	2100	2700	**23217MBW33**	**23217MBKW33**	3.78
	180.0	41.0	300.0	372.0	2000	2600	**21317CCW33**	**21317CCKW33**	5.30
	180.0	60.0	480.0	585.0	1800	2400	**22317CCW33**	**22317CCKW33**	7.46
	180.0	60.0	480.0	585.0	1800	2400	**22317MBW33**	**22317MBKW33**	7.46
90.0	160.0	40.0	294.0	375.0	1900	2600	**22218MBW33**	**22218MBKW33**	3.50
	160.0	40.0	294.0	375.0	1900	2600	**22218CCW33**	**22218CCKW33**	3.50
	160.0	52.4	337.0	482.0	2100	2800	**23218MBW33**	**23218MBKW33**	4.57
	190.0	43.0	330.0	410.0	1900	2500	**21318CCW33**	**21318CCKW33**	6.10
	190.0	64.0	535.0	660.0	1800	2400	**22318CCW33**	**22318CCKW33**	8.82
	190.0	64.0	535.0	660.0	1800	2400	**22318MBW33**	**22318MBKW33**	8.82
95.0	170.0	43.0	335.0	420.0	1900	2600	**22219MBW33**	**22219MBKW33**	4.24
	170.0	43.0	335.0	420.0	1900	2600	**22219CCW33**	**22219CCKW33**	4.24
	170.0	55.6	360.0	510.0	1900	2400	**23219MBW33**	**23219MBKW33**	5.46
	200.0	45.0	362.0	461.0	1800	2300	**21319CCW33**	**21319CCKW33**	7.10
	200.0	67.0	585.0	725.0	1700	2200	**22319CCW33**	**22319CCKW33**	10.20
	200.0	67.0	585.0	725.0	1700	2200	**22319MBW33**	**22319MBKW33**	10.20

Spherical Roller Bearing



Cylindrical bore

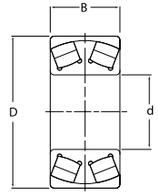


Tapered bore (k)

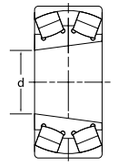
d 100~120mm

Boundary dimensions (mm)			Basic load ratings(kN)		Speed ratings (rpm)		Bearing No.		Weight (kg)
d	*D*	*B*	*Dynamic C_r*	*Static C_{or}*	*Grease*	*Oil*	*Cylindrical bore*	*Tapered bore*	
100	165	52	287	510	2000	2800	**23120MBW33**	**23120KMBW33**	4.42
	180	60.3	400	570	1700	2200	**23220MBW33**	**23220KMBW33**	6.58
	165	65	414	582	1800	2600	**24120MBW33**	**24120KMBW33**	5.55
	165	65	414	582	1800	2600	**24120CCW33**	**24120CCKW33**	5.45
	150	50	260	377	2200	3000	**24020MBW33**	**24020KMBW33**	3.45
	150	50	260	377	2200	3000	**24020CCW33**	**24020CCKW33**	3.15
	180	46	277	425	2200	3000	**22220MBW33**	**22220KMBW33**	5.18
	180	46	277	425	2200	3000	**22220CCW33**	**22220CCKW33**	5.02
	215	73	540	815	1700	2200	**22320MBW33**	**22320KMBW33**	15.00
	215	73	540	815	1700	2200	**22320CCW33**	**22320CCKW33**	13.80
105	175	56	365	550	1900	2700	**23121MBW33**	**23121KMBW33**	5.48
110	170	45	253	460	2200	3000	**23022MBW33**	**23022KMBW33**	3.54
	170	45	253	460	2200	3000	**23022CCW33**	**23022CCKW33**	3.24
	240	50	450	580	1700	2400	**21322MBW33**	**21322KMBW33**	11.50
	180	56	325	580	1900	2600	**23122MBW33**	**23122KMBW33**	5.73
	180	56	325	580	1900	2600	**23122CCW33**	**23122CCKW33**	5.50
	200	69.8	490	720	1600	2000	**23222MBW33**	**23222KMBW33**	10.10
	200	69.8	490	720	1600	2000	**23222CCW33**	**23222CCKW33**	9.95
	180	69	425	750	1600	2000	**24122MBW33**	**24122KMBW33**	6.92
	180	69	425	750	1600	2000	**24122CCW33**	**24122CCKW33**	6.72
	170	60	378	565	1800	2500	**24022MBW33**	**24022KMBW33**	5.00
	170	60	378	565	1800	2500	**24022CCW33**	**24022CCKW33**	4.71
	200	53	345	545	2000	2800	**22222MBW33**	**22222KMBW33**	7.43
	200	53	345	545	2000	2800	**22222CCW33**	**22222CCKW33**	7.15
	240	80	630	955	1400	1800	**22322MBW33**	**22322KMBW33**	18.90
	240	80	630	955	1400	1800	**22322CCW33**	**22322CCKW33**	18.60
120	180	46	263	495	2000	2800	**23024MBW33**	**23024KMBW33**	4.19
	180	46	263	495	2000	2800	**23024CCW33**	**23024CCKW33**	4.01
	200	62	405	715	1800	2400	**23124MBW33**	**23124KMBW33**	13.40
	200	62	405	715	1800	2400	**23124CCW33**	**23124CCKW33**	13.10
	215	76	535	940	1500	1900	**23224MBW33**	**23224KMBW33**	12.10
	215	76	535	940	1500	1900	**23224CCW33**	**23224CCKW33**	11.80
	200	80	495	925	900	1200	**24124MBW33**	**24124KMBW33**	10.60
	200	80	495	925	900	1200	**24124CCW33**	**24124CCKW33**	10.20
	180	60	325	660	1600	2000	**24024MBW33**	**24024KMBW33**	5.83
	180	60	325	660	1600	2000	**24024CCW33**	**24024CCKW33**	5.52
	215	58	445	735	1900	2600	**22224MBW33**	**22224KMBW33**	10.30
	215	58	445	735	1900	2600	**22224CCW33**	**22224CCKW33**	10.10
	260	86	780	1160	1400	1800	**22324MBW33**	**22324KMBW33**	23.80
	260	86	780	1160	1400	1800	**22324CCW33**	**22324CCKW33**	23.20

Spherical Roller Bearing



Cylindrical bore

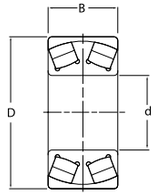


Tapered bore (k)

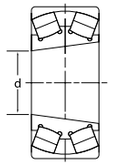
d 130~150mm

Boundary dimensions (mm)			Basic load ratings(kN)		Speed ratings (rpm)		Bearing No.		Weight (kg)
d	*D*	*B*	*Dynamic C_r*	*Static C_{or}*	*Grease*	*Oil*	*Cylindrical bore*	*Tapered bore*	
130	200	52	340	650	1900	2600	**23026MBW33**	**23026KMBW33**	7.04
	200	52	340	650	1900	2600	**23026CCW33**	**23026CCKW33**	6.85
	210	64	430	790	1700	2200	**23126MBW33**	**23126KMBW33**	9.56
	210	64	430	790	1700	2200	**23126CCW33**	**23126CCKW33**	9.25
	230	80	607	1020	1300	1700	**23226MBW33**	**23226KMBW33**	15.90
	230	80	607	1020	1300	1700	**23226CCW33**	**23226CCKW33**	15.60
	210	80	598	910	1500	1900	**24126MBW33**	**24126KMBW33**	11.00
	210	80	598	910	1500	1900	**24126CCW33**	**24126CCKW33**	10.80
	200	70	491	740	1700	2500	**24026MBW33**	**24026KMBW33**	8.05
	200	71	491	740	1700	2500	**24026CCW33**	**24026CCKW33**	7.85
	230	64	490	805	1800	2400	**22226MBW33**	**22226KMBW33**	12.40
	230	64	490	805	1800	2400	**22226CCW33**	**22226CCKW33**	12.10
	280	93	840	1300	1300	1700	**22326MBW33**	**22326KMBW33**	18.30
	280	93	840	1300	1300	1700	**22326CCW33**	**22326CCKW33**	18.10
140	210	53	365	705	1800	2400	**23028MBW33**	**23028KMBW33**	6.70
	210	53	365	705	1800	2400	**23028CCW33**	**23028CCKW33**	6.50
	225	68	490	935	1600	2000	**23128MBW33**	**23128KMBW33**	10.90
	225	68	490	935	1600	2000	**23128CCW33**	**23128CCKW33**	10.60
	250	88	910	1365	1200	1600	**23228MBW33**	**23228KMBW33**	19.70
	250	88	910	1365	1200	1600	**23228CCW33**	**23228CCKW33**	19.40
	300	118	1300	2050	1000	1400	**23328MBW33**	**23328KMBW33**	42.20
	190	37	298	680	2200	3000	**23928MBW33**	**23928KMBW33**	3.10
	225	85	580	1150	850	1100	**24128MBW33**	**24128KMBW33**	13.50
	225	85	580	1150	850	1100	**24128CCW33**	**24128CCKW33**	13.10
	210	69	518	818	1700	2200	**24028MBW33**	**24028KMBW33**	8.55
	210	69	518	818	1700	2200	**24028CCW33**	**24028CCKW33**	8.14
	250	68	560	930	1700	2200	**22228MBW33**	**22228KMBW33**	16.20
	250	68	560	930	1700	2200	**22228CCW33**	**22228CCKW33**	15.70
	300	102	1210	1950	1100	1500	**22328MBW33**	**22328KMBW33**	35.50
	300	102	1210	1950	1100	1500	**22328CCW33**	**22328CCKW33**	35.10
150	225	56	400	795	1700	2200	**23030MBW33**	**23030KMBW33**	7.44
	225	56	400	795	1700	2200	**23030CCW33**	**23030CCKW33**	7.24
	250	80	745	885	1400	1800	**23130MBW33**	**23130KMBW33**	16.90
	250	80	745	885	1400	1800	**23130CCW33**	**23130CCKW33**	16.40
	270	96	950	1550	1100	1500	**23230MBW33**	**23230KMBW33**	26.60
	270	96	950	1550	1100	1500	**23230CCW33**	**23230CCKW33**	26.20

Spherical Roller Bearing



Cylindrical bore

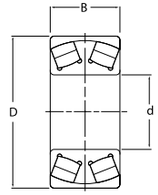


Tapered bore (k)

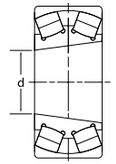
d 150~170mm

Boundary dimensions (mm)			Basic load ratings(kN)		Speed ratings (rpm)		Bearing No.		Weight (kg)
d	*D*	*B*	*Dynamic C_r*	*Static C_{or}*	*Grease*	*Oil*	*Cylindrical bore*	*Tapered bore*	
150	250	100	928	1390	1400	1800	**24130MBW33**	**24130KMBW33**	20.20
	250	100	928	1390	1400	1800	**24130CCW33**	**24130CCKW33**	20.00
	225	75	500	1050	1300	1700	**24030MBW33**	**24030KMBW33**	9.39
	225	75	500	1050	1300	1700	**24030CCW33**	**24030CCKW33**	9.11
	270	73	630	1050	1600	2000	**22230MBW33**	**22230KMBW33**	18.70
	270	73	630	1050	1600	2000	**22230CCW33**	**22230CCKW33**	18.20
	320	108	1120	1810	1000	1400	**22330MBW33**	**22330KMBW33**	14.50
	320	108	1120	1810	1000	1400	**22330CCW33**	**22330CCKW33**	14.10
160	240	60	445	875	1700	2200	**23032MBW33**	**23032KMBW33**	8.86
	240	60	445	875	1700	2200	**23032CCW33**	**23032CCKW33**	8.42
	270	86	765	1430	1300	1700	**23132MBW33**	**23132KMBW33**	21.90
	270	86	765	1430	1300	1700	**23132CCW33**	**23132CCKW33**	21.40
	290	104	955	1770	1000	1400	**23232MBW33**	**23232KMBW33**	30.20
	290	104	955	1770	1000	1400	**23232CCW33**	**23232CCKW33**	30.00
	220	45	350	720	2000	2600	**23932MBW33**	**23932KMBW33**	5.12
	270	109	865	1690	1000	1400	**24132MBW33**	**24132KMBW33**	24.60
	270	109	865	1690	1000	1400	**24132CCW33**	**24132CCKW33**	24.20
	240	80	570	1210	1100	1500	**24032MBW33**	**24032KMBW33**	13.20
	240	80	570	1210	1100	1500	**24032CCW33**	**24032CCKW33**	13.00
	290	80	750	1300	1500	1900	**22232MBW33**	**22232KMBW33**	24.60
	290	80	750	1300	1500	1900	**22232CCW33**	**22232CCKW33**	24.30
	340	114	1270	2050	950	1300	**22332MBW33**	**22332KMBW33**	52.80
	340	114	1270	2050	950	1300	**22332CCW33**	**22332CCKW33**	52.50
170	260	67	555	1090	1600	2000	**23034MBW33**	**23034KMBW33**	14.20
	260	67	555	1090	1600	2000	**23034CCW33**	**23034CCKW33**	14.00
	280	88	730	1390	1200	1600	**23134MBW33**	**23134KMBW33**	26.10
	280	88	730	1390	1200	1600	**23134CCW33**	**23134CCKW33**	25.60
	310	110	1070	1930	950	1300	**23234MBW33**	**23234KMBW33**	38.00
	310	110	1070	1930	950	1300	**23234CCW33**	**23234CCKW33**	37.50
	230	45	400	800	1800	2400	**23934MBW33**	**23934KMBW33**	5.45
	360	136	1420	2250	900	1200	**23334MBW33**	**23334KMBW33**	68.70
	280	109	915	1830	1000	1400	**24134MBW33**	**24134KMBW33**	24.80
	280	109	915	1830	1000	1400	**24134CCW33**	**24134CCKW33**	24.10
	260	90	705	1500	1000	1400	**24034MBW33**	**24034KMBW33**	17.80
	260	90	705	1500	1000	1400	**24034CCW33**	**24034CCKW33**	17.10
	310	86	845	1450	1300	1700	**22234MBW33**	**22234KMBW33**	26.80
	310	86	845	1450	1300	1700	**22234CCW33**	**22234CCKW33**	26.10
	360	120	1320	2120	950	1300	**22334MBW33**	**22334KMBW33**	62.60
	360	120	1320	2120	950	1300	**22334CCW33**	**22334CCKW33**	62.10

Spherical Roller Bearing



Cylindrical bore

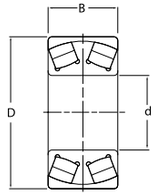


Tapered bore (k)

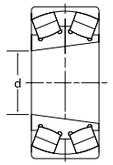
d 180~190mm

Boundary dimensions (mm)			Basic load ratings(kN)		Speed ratings (rpm)		Bearing No.		Weight (kg)
d	*D*	*B*	*Dynamic C_r*	*Static C_{or}*	*Grease*	*Oil*	*Cylindrical bore*	*Tapered bore*	
180	280	74	630	1280	1400	1800	**23036MBW33**	**23036KMBW33**	17.70
	280	74	630	1280	1400	1800	**23036CCW33**	**23036CCKW33**	17.40
	300	96	900	1720	1100	1500	**23136MBW33**	**23136KMBW33**	27.10
	300	96	900	1720	1100	1500	**23136CCW33**	**23136CCKW33**	26.60
	320	112	1160	2130	900	1200	**23236MBW33**	**23236KMBW33**	38.70
	320	112	1160	2130	900	1200	**23236CCW33**	**23236CCKW33**	38.40
	250	53	430	830	1700	2200	**23936CCW33**	**23936CCKW33**	7.34
	300	118	1020	2030	900	1200	**24136MBW33**	**24136KMBW33**	33.00
	300	118	1020	2030	900	1200	**24136CCW33**	**24136CCKW33**	32.70
	280	100	835	1750	950	1300	**24036MBW33**	**24036KMBW33**	26.60
	280	100	835	1750	950	1300	**24036CCW33**	**24036CCKW33**	26.20
	320	86	895	1550	1300	1700	**22236MBW33**	**22236KMBW33**	29.40
	320	86	895	1550	1300	1700	**22236CCW33**	**22236CCKW33**	29.10
	380	126	1470	2400	900	1200	**22336MBW33**	**22336KMBW33**	72.20
	380	126	1470	2400	900	1200	**22336CCW33**	**22336CCKW33**	72.00
190	290	75	700	1450	1300	1700	**23038MBW33**	**23038KMBW33**	17.30
	290	75	700	1450	1300	1700	**23038CCW33**	**23038CCKW33**	17.10
	320	104	975	1840	1000	1400	**23138MBW33**	**23138KMBW33**	34.30
	320	104	975	1840	1000	1400	**23138CCW33**	**23138CCKW33**	34.00
	340	120	1290	2400	850	1100	**23238MBW33**	**23238KMBW33**	44.80
	340	120	1290	2400	850	1100	**23238CCW33**	**23238CCKW33**	44.40
	260	52	550	980	1500	2000	**23938MBW33**	**23938KMBW33**	8.32
	260	52	550	980	1500	2000	**23938CCW33**	**23938CCKW33**	8.01
	320	128	1200	2400	850	1100	**24138MBW33**	**24138KMBW33**	41.90
	320	128	1200	2400	850	1100	**24138CCW33**	**24138CCKW33**	41.50
	290	100	855	1840	950	1300	**24038MBW33**	**24038KMBW33**	22.90
	290	100	855	1840	950	1300	**24038CCW33**	**24038CCKW33**	22.50
	340	92	865	1620	1200	1600	**22238MBW33**	**22238KMBW33**	37.40
	340	92	865	1620	1200	1600	**22238CCW33**	**22238CCKW33**	37.00
	400	132	1640	2630	850	1100	**22338MBW33**	**22338KMBW33**	82.20
	400	132	1640	2630	850	1100	**22338CCW33**	**22338CCKW33**	82.00

Spherical Roller Bearing



Cylindrical bore

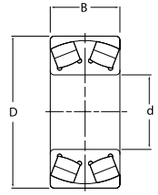


Tapered bore (k)

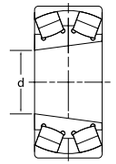
d 200~220mm

Boundary dimensions (mm)			Basic load ratings(kN)		Speed ratings (rpm)		Bearing No.		Weight (kg)
d	*D*	*B*	*Dynamic C_r*	*Static C_{or}*	*Grease*	*Oil*	*Cylindrical bore*	*Tapered bore*	
200	310	82	770	1560	1200	1600	**23040MBW33**	**23040KMBW33**	22.60
	310	82	770	1560	1200	1600	**23040CCW33**	**23040CCKW33**	22.10
	340	112	1170	2240	950	1300	**23140MBW33**	**23140KMBW33**	43.80
	340	112	1170	2240	950	1300	**23140CCW33**	**23140CCKW33**	43.10
	360	128	1360	2530	850	1100	**23240MBW33**	**23240KMBW33**	53.40
	360	128	1360	2530	850	1100	**23240CCW33**	**23240CCKW33**	53.10
	280	60	495	1150	1600	2000	**23940MBW33**	**23940KMBW33**	13.20
	280	60	495	1150	1600	2000	**23940CCW33**	**23940CCKW33**	13.00
	420	165	2020	3500	750	950	**23340MBW33**	**23340KMBW33**	125.00
	340	140	1630	2450	900	1200	**24140MBW33**	**24140KMBW33**	53.50
	340	140	1630	2450	900	1200	**24140CCW33**	**24140CCKW33**	53.10
	310	109	985	2130	900	1200	**24040MBW33**	**24040KMBW33**	31.30
	310	109	985	2130	900	1200	**24040CCW33**	**24040CCKW33**	31.00
	360	98	1100	1950	1100	1500	**22240MBW33**	**22240KMBW33**	44.70
	360	98	1100	1950	1100	1500	**22240CCW33**	**22240CCKW33**	44.10
	420	138	1740	2860	850	1100	**22340MBW33**	**22340KMBW33**	97.00
	420	138	1740	2860	850	1100	**22340CCW33**	**22340CCKW33**	96.60
220	340	90	935	1900	1100	1500	**23044MBW33**	**23044KMBW33**	32.00
	340	90	935	1900	1100	1500	**23044CCW33**	**23044CCKW33**	31.70
	370	120	1370	2710	900	1200	**23144MBW33**	**23144KMBW33**	54.70
	370	120	1370	2710	900	1200	**23144CCW33**	**23144CCKW33**	54.40
	400	144	1720	3200	750	950	**23244MBW33**	**23244KMBW33**	77.30
	400	144	1720	3200	750	950	**23244CCW33**	**23244CCKW33**	77.00
	300	60	500	980	1520	1760	**23944MBW33**	**23944KMBW33**	12.50
	300	60	500	980	1520	1760	**23944CCW33**	**23944CCKW33**	12.10
	370	150	1920	3045	800	1000	**24144MBW33**	**24144KMBW33**	67.00
	370	150	1920	3045	800	1000	**24144CCW33**	**24144CCKW33**	66.60
	340	118	1150	2500	850	1100	**24044MBW33**	**24044KMBW33**	39.10
	340	118	1150	2500	850	1100	**24044CCW33**	**24044CCKW33**	38.70
	400	108	1350	2400	950	1300	**22244MBW33**	**22244KMBW33**	63.50
	400	108	1350	2400	950	1300	**22244CCW33**	**22244CCKW33**	63.10
	460	145	2450	3130	800	1000	**22344MBW33**	**22344KMBW33**	115.00
	460	145	2450	3130	800	1000	**22344CCW33**	**22344CCKW33**	115.00

Spherical Roller Bearing



Cylindrical bore

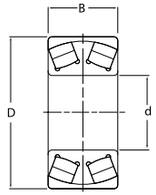


Tapered bore (k)

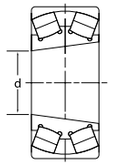
d 240~260mm

Boundary dimensions (mm)			Basic load ratings(kN)		Speed ratings(rpm)		Bearing No.		Weight (kg)
d	*D*	*B*	*Dynamic C_r*	*Static C_{or}*	*Grease*	*Oil*	*Cylindrical bore*	*Tapered bore*	
240	360	92	985	2080	1000	1400	**23048MBW33**	**23048KMBW33**	34.20
	360	92	985	2080	1000	1400	**23048CCW33**	**23048CCKW33**	34.00
	400	128	1500	3000	850	1100	**23148MBW33**	**23148KMBW33**	68.20
	400	128	1500	3000	850	1100	**23148CCW33**	**23148CCKW33**	68.00
	440	160	2080	3950	750	900	**23248MBW33**	**23248KMBW33**	102.00
	440	160	2080	3950	750	900	**23248CCW33**	**23248CCKW33**	102.00
	320	60	530	1310	1300	1700	**23948MBW33**	**23948KMBW33**	15.00
	320	60	530	1310	1300	1700	**23948CCW33**	**23948CCKW33**	14.70
	400	160	1660	3400	800	1000	**24148MBW33**	**24148KMBW33**	79.00
	400	160	1660	3400	800	1000	**24148CCW33**	**24148CCKW33**	78.60
	360	118	1240	2800	900	1200	**24048MBW33**	**24048KMBW33**	46.50
	360	118	1240	2800	900	1200	**24048CCW33**	**24048CCKW33**	46.10
	440	120	1640	1820	850	1150	**22248MBW33**	**22248KMBW33**	85.00
	440	120	1640	1820	850	1150	**22248CCW33**	**22248CCKW33**	84.80
	500	155	2480	3200	750	1000	**22348MBW33**	**22348KMBW33**	150.00
	500	155	2480	3200	750	1000	**22348CCW33**	**22348CCKW33**	149.00
260	400	104	1230	2550	900	1200	**23052MBW33**	**23052KMBW33**	49.80
	400	104	1230	2550	900	1200	**23052CCW33**	**23052CCKW33**	49.10
	440	144	1860	3750	800	1000	**23152MBW33**	**23152KMBW33**	88.90
	440	144	1860	3750	800	1000	**23152CCW33**	**23152CCKW33**	88.20
	480	174	2800	4750	630	800	**23252MBW33**	**23252KMBW33**	141.00
	480	174	2800	4750	630	800	**23252CCW33**	**23252CCKW33**	140.00
	360	75	820	1750	1100	1500	**23952MBW33**	**23952KMBW33**	21.60
	360	75	820	1750	1100	1500	**23952CCW33**	**23952CCKW33**	21.60
	440	180	2100	4350	650	850	**24152MBW33**	**24152KMBW33**	115.00
	440	180	2100	4350	650	850	**24152CCW33**	**24152CCKW33**	114.00
	400	140	1780	1910	750	1000	**24052MBW33**	**24052KMBW33**	66.70
	400	140	1780	1910	750	1000	**24052CCW33**	**24052CCKW33**	66.20
	360	100	970	2050	1000	1400	**24952MBW33**	**24952KMBW33**	31.30
	480	130	1900	3600	850	1100	**22252MBW33**	**22252KMBW33**	106.00
	480	130	1900	3600	850	1100	**22252CCW33**	**22252CCKW33**	105.00
	540	165	3000	4700	630	800	**22352MBW33**	**22352KMBW33**	184.00
	540	165	3000	4700	630	800	**22352CCW33**	**22352CCKW33**	183.00

Spherical Roller Bearing



Cylindrical bore

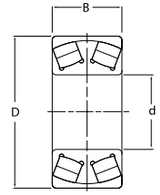


Tapered bore (k)

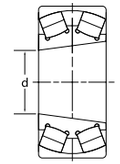
d 280~300mm

Boundary dimensions (mm)			Basic load ratings(kN)		Speed ratings(rpm)		Bearing No.		Weight (kg)
d	*D*	*B*	*Dynamic C_r*	*Static C_{or}*	*Grease*	*Oil*	*Cylindrical bore*	*Tapered bore*	
280	420	106	1320	2850	850	1100	**23056MBW33**	**23056KMBW33**	56.80
	420	106	1320	2850	850	1100	**23056CCW33**	**23056CCKW33**	56.10
	460	146	1990	4150	750	950	**23156MBW33**	**23156KMBW33**	104.00
	460	146	1990	4150	750	950	**23156CCW33**	**23156CCKW33**	103.00
	500	176	2580	5100	600	750	**23256MBW33**	**23256KMBW33**	147.00
	500	176	2580	5100	600	750	**23256CCW33**	**23256CCKW33**	146.00
	380	75	700	1850	1000	1400	**23956MBW33**	**23956KMBW33**	25.80
	380	75	700	1850	1000	1400	**23956CCW33**	**23956CCKW33**	25.20
	460	180	2220	4750	600	800	**24156MBW33**	**24156KMBW33**	119.00
	460	180	2220	4750	600	800	**24156CCW33**	**24156CCKW33**	118.00
	420	140	1620	3700	670	850	**24056MBW33**	**24056KMBW33**	68.90
	420	140	1620	3700	670	850	**24056CCW33**	**24056CCKW33**	68.10
	500	130	1990	3600	800	1000	**22256MBW33**	**22256KMBW33**	118.00
	500	130	1990	3600	800	1000	**22256CCW33**	**22256CCKW33**	117.00
	580	175	3200	5700	600	750	**22356MBW33**	**22356KMBW33**	221.00
	580	175	3200	5700	600	750	**22356CCW33**	**22356CCKW33**	220.00
300	460	118	1610	3450	800	1000	**23060MBW33**	**23060KMBW33**	75.20
	460	118	1610	3450	800	1000	**23060CCW33**	**23060CCKW33**	75.00
	500	160	2310	4750	670	850	**23160MBW33**	**23160KMBW33**	126.00
	500	160	2310	4750	670	850	**23160CCW33**	**23160CCKW33**	125.00
	540	192	3300	5600	530	670	**23260MBW33**	**23260KMBW33**	192.00
	540	192	3300	5600	530	670	**23260CCW33**	**23260CCKW33**	191.00
	420	90	1050	2500	950	1300	**23960MBW33**	**23960KMBW33**	40.10
	420	90	1050	2500	950	1300	**23960CCW33**	**23960CCKW33**	39.70
	500	200	3400	5700	560	720	**24160MBW33**	**24160KMBW33**	160.00
	500	200	3400	5700	560	720	**24160CCW33**	**24160CCKW33**	159.00
	460	160	2020	2700	600	750	**24060MBW33**	**24060KMBW33**	99.00
	460	160	2020	2700	600	750	**24060CCW33**	**24060CCKW33**	98.20
	540	140	2310	4300	750	950	**22260MBW33**	**22260KMBW33**	138.00
	540	140	2310	4300	750	950	**22260CCW33**	**22260CCKW33**	137.00
	620	185	3500	5800	500	650	**22360MBW33**	**22360KMBW33**	270.00

Spherical Roller Bearing



Cylindrical bore

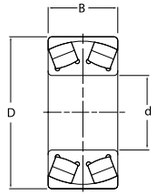


Tapered bore (k)

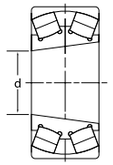
d320~360mm

Boundary dimensions (mm)			Basic load ratings(kN)		Speed ratings (rpm)		Bearing No.		Weight (kg)
d	*D*	*B*	*Dynamic C_r*	*Static C_{or}*	*Grease*	*Oil*	*Cylindrical bore*	*Tapered bore*	
320	480	121	1930	2200	800	1000	**23064MBW33**	**23064KMBW33**	85.50
	480	121	1930	2200	800	1000	**23064CCW33**	**23064CCKW33**	85.00
	540	176	3150	5800	630	800	**23164MBW33**	**23164KMBW33**	195.00
	540	176	3150	5800	630	800	**23164CCW33**	**23164CCKW33**	194.00
	580	208	3900	6800	500	630	**23264MBW33**	**23264KMBW33**	253.00
	580	208	3900	6800	500	630	**23264CCW33**	**23264CCKW33**	252.00
	440	90	1140	2660	900	1200	**23964MBW33**	**23964KMBW33**	43.00
	440	90	1140	2660	900	1200	**23964CCW33**	**23964CCKW33**	42.50
	540	218	3850	7300	500	700	**24164MBW33**	**24164KMBW33**	167.00
	540	218	3850	7300	500	700	**24164CCW33**	**24164CCKW33**	166.00
	480	160	2480	5100	560	700	**24064MBW33**	**24064KMBW33**	106.00
	480	160	2480	5100	560	700	**24064CCW33**	**24064CCKW33**	105.00
	580	150	2490	4550	670	850	**22264MBW33**	**22264KMBW33**	175.00
	580	150	2490	4550	670	850	**22264CCW33**	**22264CCKW33**	174.00
	670	200	3700	6000	450	600	**22364MBW33**	**22364KMBW33**	352.00
340	520	133	1980	4400	700	900	**23068MBW33**	**23068KMBW33**	115.00
	520	133	1980	4400	700	900	**23068CCW33**	**23068CCKW33**	114.00
	580	190	3050	6300	600	750	**23168MBW33**	**23168KMBW33**	211.00
	580	190	3050	6300	600	750	**23168CCW33**	**23168CCKW33**	210.00
	620	224	4450	8000	380	570	**23268MBW33**	**23268KMBW33**	300.00
	460	90	1200	2700	900	1200	**23968MBW33**	**23968KMBW33**	45.60
	460	90	1200	2700	900	1200	**23968CCW33**	**23968CCKW33**	45.10
	580	243	4600	8250	400	600	**24168MBW33**	**24168KMBW33**	269.00
	580	243	4600	8250	400	600	**24168CCW33**	**24168CCKW33**	268.00
	520	180	2460	5700	530	670	**24068MBW33**	**24068KMBW33**	137.00
	520	180	2460	5700	530	670	**24068CCW33**	**24068CCKW33**	136.00
	620	165	2650	5050	550	700	**22268MBW33**	**22268KMBW33**	225.00
	710	212	3950	6500	400	550	**22368MBW33**	**22368KMBW33**	419.00
360	540	134	2280	4800	670	850	**23072MBW33**	**23072KMBW33**	126.00
	540	134	2280	4800	670	850	**23072CCW33**	**23072CCKW33**	125.00
	600	192	3250	6850	560	700	**23172MBW33**	**23172KMBW33**	255.00
	600	192	3250	6850	560	700	**23172CCW33**	**23172CCKW33**	254.00
	650	232	4650	8300	400	500	**23272MBW33**	**23272KMBW33**	330.00
	480	90	1290	2820	850	1100	**23972MBW33**	**23972KMBW33**	46.60
	480	90	1290	2820	850	1100	**23972CCW33**	**23972CCKW33**	46.10
	600	243	5600	8400	400	500	**24172MBW33**	**24172KMBW33**	270.00
	600	243	5600	8400	400	500	**24172CCW33**	**24172CCKW33**	269.00
	540	180	3100	6600	630	800	**24072MBW33**	**24072KMBW33**	147.00
	540	180	3100	6600	630	800	**24072CCW33**	**24072CCKW33**	146.00
	750	224	4900	8600	350	450	**22372MBW33**	**22372KMBW33**	466.00

Spherical Roller Bearing



Cylindrical bore

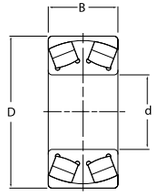


Tapered bore (k)

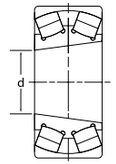
d 380~440mm

Boundary dimensions (mm)			Basic load ratings(kN)		Speed ratings (rpm)		Bearing No.		Weight (kg)
d	*D*	*B*	*Dynamic C_r*	*Static C_{or}*	*Grease*	*Oil*	*Cylindrical bore*	*Tapered bore*	
380	560	135	2480	5000	630	800	**23076MBW33**	**23076KMBW33**	130.00
	560	135	2480	5000	630	800	**23076CCW33**	**23076CCKW33**	129.00
	620	194	3400	7350	400	500	**23176MBW33**	**23176KMBW33**	244.00
	620	194	3400	7350	400	500	**23176CCW33**	**23176CCKW33**	243.00
	680	240	5200	9500	380	480	**23276MBW33**	**23276KMBW33**	380.00
	520	106	1730	3800	800	1000	**23976MBW33**	**23976KMBW33**	69.50
	520	106	1730	3800	800	1000	**23976CCW33**	**23976CCKW33**	69.10
	620	243	5800	9650	400	500	**24176MBW33**	**24176KMBW33**	296.00
	560	180	3150	6900	480	600	**24076MBW33**	**24076KMBW33**	153.00
	560	180	3150	6900	480	600	**24076CCW33**	**24076CCKW33**	152.00
400	600	148	2540	5900	600	750	**23080MBW33**	**23080KMBW33**	161.00
	600	148	2540	5900	600	750	**23080CCW33**	**23080CCKW33**	160.00
	650	200	4100	7650	380	480	**23180MBW33**	**23180KMBW33**	275.00
	720	256	6150	11300	340	430	**23280MBW33**	**23280KMBW33**	353.00
	540	106	2200	3900	750	950	**23980MBW33**	**23980KMBW33**	72.40
	540	106	2200	3900	750	950	**23980CCW33**	**23980CCKW33**	72.00
	650	250	5100	10300	380	480	**24180MBW33**	**24180KMBW33**	329.00
	600	200	3600	7800	450	560	**24080MBW33**	**24080KMBW33**	202.00
	600	200	3600	7800	450	560	**24080CCW33**	**24080CCKW33**	201.00
	720	185	4400	7400	420	550	**22280MBW33**	**22280KMBW33**	337.00
	820	243	6820	9500	350	450	**22380MBW33**	**22380KMBW33**	640.00
420	620	150	2700	6400	450	560	**23084MBW33**	**23084KMBW33**	149.00
	620	150	2700	6400	450	560	**23084CCW33**	**23084CCKW33**	148.00
	700	224	4250	9200	360	450	**23184MBW33**	**23184KMBW33**	353.00
	700	224	4250	9200	360	450	**23184CCW33**	**23184CCKW33**	352.00
	760	272	5610	11900	320	400	**23284MBW33**	**23284KMBW33**	550.00
	560	106	2300	4250	600	800	**23984MBW33**	**23984KMBW33**	71.60
	700	280	5600	11900	340	450	**24184MBW33**	**24184KMBW33**	421.00
	620	200	3350	8450	380	480	**24084MBW33**	**24084KMBW33**	202.00
440	650	157	2780	6500	430	530	**23088MBW33**	**23088KMBW33**	185.00
	720	226	4500	10000	340	430	**23188MBW33**	**23188KMBW33**	378.00
	790	280	6900	12800	300	400	**23288MBW33**	**23288KMBW33**	594.00
	600	118	2450	4800	500	680	**23988MBW33**	**23988KMBW33**	96.30
	720	280	6000	12000	320	430	**24188MBW33**	**24188KMBW33**	433.00
	650	212	4150	9100	330	420	**24088MBW33**	**24088KMBW33**	237.00

Spherical Roller Bearing



Cylindrical bore



Tapered bore (k)

d 460~480mm

Boundary dimensions (mm)			Basic load ratings(kN)		Speed ratings (rpm)		Bearing No.		Weight (kg)
d	*D*	*B*	*Dynamic C_r*	*Static C_{or}*	*Grease*	*Oil*	*Cylindrical bore*	*Tapered bore*	
460	680	163	3450	6950	400	500	**23092MBW33**	**23092KMBW33**	226.00
	760	240	5500	10000	320	400	**23192MBW33**	**23192KMBW33**	457.00
	830	296	7350	13500	300	380	**23292MBW33**	**23292KMBW33**	698.00
	620	118	2550	4950	430	530	**23992MBW33**	**23992KMBW33**	100.00
	760	300	6100	14400	300	400	**24192MBW33**	**24192KMBW33**	558.00
	680	218	4200	9200	320	400	**24092MBW33**	**24092KMBW33**	277.00
480	700	165	3800	7950	400	480	**23096MBW33**	**23096KMBW33**	218.00
	790	248	6100	12000	300	380	**23196MBW33**	**23196KMBW33**	516.00
	870	310	6750	15200	260	340	**23296MBW33**	**23296KMBW33**	853.00
	650	128	2150	5750	400	500	**23996MBW33**	**23996KMBW33**	125.00
	790	308	7150	14600	300	380	**24196MBW33**	**24196KMBW33**	616.00
	700	218	4600	10200	320	400	**24096MBW33**	**24096KMBW33**	288.00

Thrust Ball & Roller Bearing

Thrust ball bearings are divided into two types:

1. Single Direction Thrust Bearings

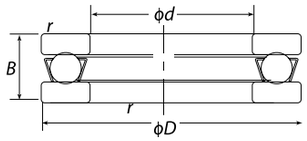
These can accomodate axial load in one direction.

2. Double Direction Thrust Bearings

These can accomodate axial load in both directions.
Thrust bearings are not suitable for applications which require high speed or radial load.
The standard cages used are pressed steel cages or with copper alloy machined cage and in some cases also have molded cages.

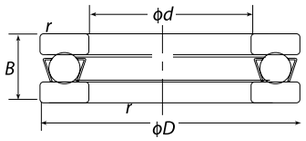
For details on boundary dimensions and specifications please refer to the tables overleaf.

Single Direction Thrust Ball Bearings



Boundary dimensions (mm)				Basic load ratings(kN)		Speed ratings (rpm)		ГОСТ	Bearing No.	Weight (kg)
d	*D*	*T*	*r*	*Dynamic (C)*	*Static (Co)*	*Grease*	*Oil*			
10	24	9	0.3	10.00	14.00	10000	6500	8100	**51100**	0.020
12	26	9	0.3	10.30	15.40	10000	6500	8101	**51101**	0.022
15	28	9	0.3	10.50	16.80	9400	6100	8102	**51102**	0.024
17	30	9	0.3	10.80	18.20	9400	6100	8103	**51103**	0.028
20	35	10	0.3	14.20	24.70	7900	5100	8104	**51104**	0.040
25	42	11	0.6	19.50	37.20	6800	4400	8105	**51105**	0.059
30	47	11	0.6	20.40	42.20	6600	4300	8106	**51106**	0.068
35	52	12	0.6	20.40	44.70	6000	3900	8107	**51107**	0.090
40	60	13	0.6	26.90	62.80	5000	3400	8108	**51108**	0.120
45	65	14	0.6	27.80	69.10	5000	3200	8109	**51109**	0.150
50	70	14	0.6	28.80	75.4	4800	3100	8110	**51110**	0.160
55	78	16	0.6	34.80	93.10	4300	2800	8111	**51111**	0.240
60	85	17	1.0	41.40	113.00	4000	2600	8112	**51112**	0.290
65	90	18	1.0	41.70	117.00	3700	2400	8113	**51113**	0.340
70	95	18	1.0	43.00	125.00	3600	2300	8114	**51114**	0.360
75	100	19	1.0	43.20	127.00	3400	2200	8115	**51115**	0.420
80	105	19	1.0	44.60	141.00	3300	2100	8116	**51116**	0.430
85	110	19	1.0	59.70	150.00	3200	2100	8117	**51117**	0.460
90	120	22	1.0	59.70	190.00	2900	1900	8118	**51118**	0.680
100	135	25	1	85	268	2500	1600	8120	**51120**	0.990

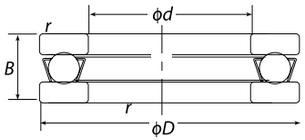
Single Direction Thrust Ball Bearings



Boundary dimensions (mm)				Basic load ratings(kN)		Speed ratings (rpm)		ГОСТ	Bearing No.	Weight (kg)
d	*D*	*T*	*r*	*Dynamic (C)*	*Static (Co)*	*Grease*	*Oil*			
10	26	11	0.6	12.70	17.10	8800	5700	8200	**51200**	0.030
12	28	11	0.6	13.20	19.00	8300	5400	8201	**51201**	0.034
15	32	12	0.6	16.60	24.80	7500	4900	8202	**51202**	0.046
17	35	12	0.6	17.20	27.30	7500	4900	8203	**51203**	0.053
20	40	14	0.6	22.30	37.70	6000	3900	8204	**51204**	0.082
25	47	15	0.6	27.80	50.40	5500	3600	8205	**51205**	0.120
30	52	16	0.6	29.30	58.20	5200	3400	8206	**51206**	0.150
35	62	18	1.0	39.20	78.20	4500	2900	8207	**51207**	0.220
40	68	19	1.0	46.90	98.30	4200	2700	8208	**51208**	0.270
45	73	20	1.0	47.70	105.00	4000	2600	8209	**51209**	0.320
50	78	22	1.0	48.50	111.00	3600	2300	8210	**51210**	0.390
55	90	25	1.0	69.40	159.00	3200	2100	8211	**51211**	0.610
60	95	26	1.0	73.60	179.00	3000	1900	8212	**51212**	0.690
65	100	27	1.0	74.80	189.00	2900	1900	8213	**51213**	0.770
70	105	27	1.0	73.60	189.00	2800	1800	8214	**51214**	0.810
75	110	27	1.0	77.40	209.00	2700	1800	8215	**51215**	0.860
80	115	28	1.0	78.50	218.00	2600	1700	8216	**51216**	0.950
85	125	31	1.0	92.30	251.00	2300	1500	8217	**51217**	1.290
90	135	35	1.1	117.00	326.00	2100	1400	8218	**51218**	1.770
100	150	38	1.1	147	410	1900	1200	8220	**51220**	2.360

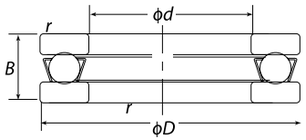
Estd. 1983 DPI® BEARINGS

Single Direction Thrust Ball Bearings



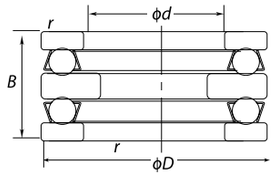
Boundary dimensions (mm)				Basic load ratings(kN)		Speed ratings (rpm)		ГОСТ	Bearing No.	Weight (kg)
d	*D*	*T*	*B*	*Dynamic (C)*	*Static (Co)*	*Grease*	*Oil*			
25	52	18	1	35.7	61.4	4800	3100	8305	**51305**	0.18
30	60	21	1	42.8	78.7	4200	2700	8306	**51306**	0.27
35	68	24	1	55.5	105	3700	2400	8307	**51307**	0.39
40	78	26	1	69.3	135	3300	2100	8308	**51308**	0.55
45	85	28	1	80	163	3000	1900	8309	**51309**	0.69
50	95	31	1.1	91.6	186	2700	1800	8310	**51310**	1.00
55	105	35	1.1	119	246	2400	1600	8311	**51311**	1.34
60	110	35	1.1	124	267	2300	1500	8312	**51312**	1.43
65	115	36	1.1	128	287	2200	1400	8313	**51313**	1.57
70	125	40	1.1	148	339	2000	1300	8314	**51314**	2.06
75	135	44	1.5	171	396	1900	1200	8315	**51315**	2.68
80	140	44	1.5	176	424	1800	1200	8316	**51316**	2.82
85	150	49	1.5	206	489	1700	1100	8317	**51317**	3.66
90	155	50	1.5	213	524	1600	1000	8318	**51318**	3.88
100	170	55	1.5	236	596	1450	940	8320	**51320**	5.11

Thrust Ball Bearing Single Direction Series



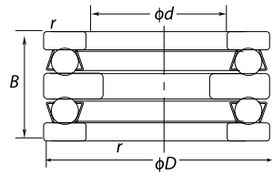
Boundary dimensions (mm)			Basic load ratings(kN)		Speed ratings(rpm)	ГОСТ	Bearing No.	Weight (kg)
d	*D*	*B*	*Dynamic (C)*	*Static (Co)*	*Grease*			
25	60	24	40000	67000	3000	8405	**51405**	0.34
30	70	28	54000	93000	2500	8406	**51406**	0.53
35	80	32	65000	117000	2200	8407	**51407**	0.79
40	90	36	84000	153000	2000	8408	**51408**	1.15
45	100	39	97000	180000	1800	8409	**51409**	1.45
50	110	43	119000	230000	1700	8410	**51410**	2.00
55	120	48	130000	270000	1500	8411	**51411**	2.65
60	130	51	149000	300000	1350	8412	**51412**	3.30
65	140	56	162000	335000	1250	8413	**51413**	4.20
70	150	60	175000	375000	1200	8414	**51414**	5.10
75	160	65	188000	420000	1100	8415	**51415**	6.35
80	170	68	200000	465000	1000	8416	**51416**	8.00
85	180	72	214000	510000	1000	8417	**51417**	9.45
90	190	77	230000	560000	900	8418	**51418**	11.00
100	210	85	278000	720000	800	8420	**51420**	14.70

Double Direction Thrust Ball Bearings



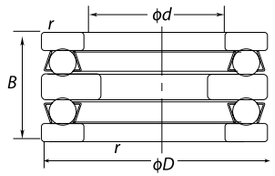
Boundary dimensions (mm)			Basic load ratings(kN)		Speed ratings (rpm)	ГОСТ	Bearing No.	Weight (kg)
d	*D*	*B*	*Dynamic (C)*	*Static (Co)*	*Grease*			
10	32	22	1200	18500	5000	38202	**52202**	0.09
15	40	26	1600	28000	4500	38204	**52204**	0.15
20	47	28	20000	37000	4000	38205	**52205**	0.23
25	52	29	19000	35000	3600	38206	**52206**	0.28
30	62	34	26000	50000	3200	38207	**52207**	0.42
30	68	36	35000	73000	2800	38208	**52208**	0.54
35	73	37	27000	60000	2700	38209	**52209**	0.62
40	78	39	38000	80000	2500	38210	**52210**	0.71
45	90	45	46000	100000	2100	38211	**52211**	1.10
50	95	46	47000	105000	2100	38212	**52212**	1.25
55	100	47	48000	112000	1900	38213	**52213**	1.35
60	110	47	50000	120000	1800	38215	**52215**	1.65
65	115	48	57000	140000	1800	38216	**52216**	1.7
70	125	55	73000	185000	1600	38217	**52217**	2.35
75	135	62	89000	225000	1500	38218	**52218**	3.2
85	150	67	93000	240000	1300	38220	**52220**	4.3
95	160	67	97000	270000	1300	38222	**52222**	4.7
100	170	68	105000	300000	1200	38224	**52224**	5.25

Double Direction Thrust Ball Bearings



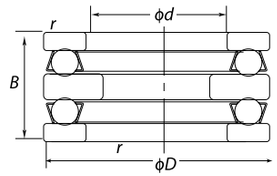
Boundary dimensions (mm)			Basic load ratings(kN)		Speed ratings (rpm)	ГОСТ	Bearing No.	Weight (kg)
d	*D*	*B*	*Dynamic (C)*	*Static (Co)*	*Grease*			
20	52	34	25000	41000	3800	38305	**52305**	0.33
25	60	38	28000	49000	3200	38306	**52306**	0.49
30	68	44	37000	66000	2900	38307	**52307**	0.71
30	78	49	46000	84000	2500	38308	**52308**	1.05
35	85	52	57000	105000	2400	38309	**52309**	1.30
40	95	58	66000	130000	2200	38310	**52310**	1.85
45	105	64	78000	155000	1800	38311	**52311**	2.50
50	110	64	75000	155000	1800	38312	**52312**	2.70
55	115	65	80000	165000	1700	38313	**52313**	2.90
55	125	72	100000	225000	1600	38314	**52314**	3.90
60	135	79	120000	270000	1400	38315	**52315**	4.85
65	140	79	119000	270000	1400	38316	**52316**	5.05
70	150	87	130000	310000	1300	38317	**52317**	6.45
75	155	88	150000	350000	1250	38318	**52318**	6.60
85	170	97	170000	420000	1200	38320	**52320**	8.90
95	190	110	200000	550000	1000	38322	**52322**	13.10
100	210	123	240000	680000	950	38324	**52324**	18.40

Double Direction Thrust Ball Bearings



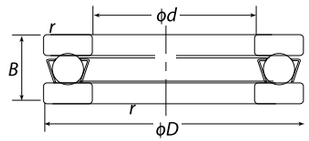
Boundary dimensions (mm)			Basic load ratings (kN)		Speed ratings (rpm)	ГОСТ	Bearing No.	Weight (kg)
d	*D*	*B*	*Dynamic (C)*	*Static (Co)*	*Grease*			
15	60	45	40000	70000	2600	38405	**52405**	0.630
20	70	52	54000	93000	2500	38406	**52406**	1.000
25	80	59	65000	115000	2200	38407	**52407**	1.440
30	90	65	84000	153000	2000	38408	**52408**	2.030
35	100	72	97000	180000	1800	38409	**52409**	2.710
40	110	78	110000	210000	1700	38410	**52410**	3.566
45	120	87	130000	270000	1500	38411	**52411**	4.700
50	30	93	149000	300000	1300	38412	**52412**	6.330
50	140	101	173000	370000	1200	38413	**52413**	8.030
55	150	107	185000	410000	1100	38414	**52414**	9.710
60	160	115	190000	420000	1050	38415	**52415**	11.800
65	170	120	200000	465000	950	38416	**52416**	14.800
65	180	128	215000	513000	900	38417	**52417**	18.600
70	190	135	230000	560000	800	38418	**52418**	20.800
80	210	150	258000	670000	750	38420	**52420**	28.200
90	230	166	325000	930000	720	38422	**52422**	37.800
95	250	177	340000	1000000	650	38424	**52424**	48.400
100	270	192	410000	1300000	600	38426	**52426**	60.100

Double Direction Thrust Ball Bearings



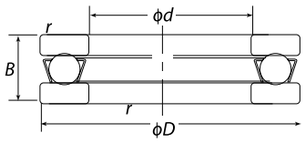
Boundary dimensions (mm)			Basic load ratings (kN)		Speed ratings (rpm)	ГОСТ	Bearing No.	Weight (kg)
d	*D*	*B*	*Dynamic (C)*	*Static (Co)*	*Grease*			
15	32	13.3	12000	18000	6000	18202	**53202**	0.046
17	35	13.2	13000	20000	5700	18203	**53203**	0.054
20	40	14.7	16000	27000	5100	18204	**53204**	0.081
25	47	16.7	20000	37000	4500	18205	**53205**	0.111
30	52	17.8	19000	35000	4100	18206	**53206**	0.139
35	62	19.9	26000	50000	3400	18207	**53207**	0.215
40	68	20.3	35000	73000	3200	18208	**53208**	0.276
45	73	21.3	29000	60000	3000	18209	**53209**	0.317
50	78	23.5	37000	80000	2900	18210	**53210**	0.378
55	90	27.3	46000	10000	2400	18211	**53211**	0.608
60	95	28.0	47000	105000	2400	18212	**53212**	0.678
65	100	28.7	48000	1100000	2200	18213	**53213**	0.767
70	105	28.8	49000	120000	2200	18214	**53214**	0.793
75	110	28.3	50000	127000	2000	18215	**53215**	0.874
80	115	29.5	57000	140000	2000	18216	**53216**	0.916
85	125	33.1	73000	185000	1800	18217	**53217**	1.250
90	135	38.5	89000	225000	1700	18218	**53218**	1.700
100	150	40.9	93000	240000	1500	18220	**53220**	2.290

Single Direction Thrust Ball Bearings With Sphered Housing Washer



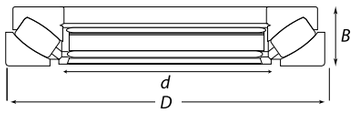
Boundary dimensions (mm)			Basic load ratings(kN)		Speed ratings (rpm)	ГОСТ	Bearing No.	Weight (kg)
d	*D*	*B*	*Dynamic (C)*	*Static (Co)*	*Grease*			
25	52	19.8	17000	30000	3400	18305	**53305**	0.176
30	60	22.6	27500	48700	3200	18306	**53306**	0.269
35	68	25.6	37000	66000	2900	18307	**53307**	0.383
40	78	28.5	46000	84000	2500	18308	**53308**	0.548
45	85	30.1	57000	105000	2400	18309	**53309**	0.684
50	95	34.4	66000	125000	2200	18310	**53310**	0.951
55	105	39.3	78000	156000	1800	18311	**53311**	1.290
60	110	38.3	75000	156000	1800	18312	**53312**	1.370
65	115	39.4	79000	165000	1700	18313	**53313**	1.510
70	125	44.2	100000	225000	1600	18314	**53314**	2.010
75	135	48.1	120000	270000	1400	18315	**53315**	2.610
80	140	47.6	119000	270000	1400	18316	**53316**	2.720
85	150	53.1	140000	318000	1300	18317	**53317**	3.520
90	155	54.6	146000	348000	1200	18318	**53318**	3.740
100	170	69.2	170000	420000	1200	18320	**53320**	4.880

Single Direction Thrust Ball Bearings With Sphered Housing Washer



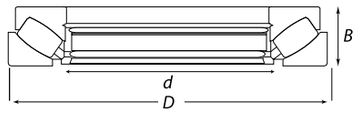
Boundary dimensions (mm)			Basic load ratings(kN)		Speed ratings (rpm)	ГОСТ	Bearing No.	Weight (kg)
d	*D*	*B*	*Dynamic (C)*	*Static (Co)*	*Grease*			
40	90	38.2	84000	153000	1800	18408	**53408**	1.08
45	100	42.4	97000	180000	1700	18409	**53409**	1.43
50	110	45.6	119000	232000	1700	18410	**53410**	1.90
55	120	50.5	130000	250000	1500	18411	**53411**	2.52
60	130	54.0	150000	300000	1300	18412	**53412**	3.12
65	14	60.2	160000	330000	1200	18413	**53413**	3.96
70	150	63.6	175000	375000	1200	18414	**53414**	5.50
75	160	69.0	188000	420000	1100	18415	**53415**	6.85
80	170	72.2	200000	465000	1000	18416	**53416**	8.00
85	180	77.0	215000	510000	950	18417	**53417**	9.03
90	190	81.2	230000	560000	900	18418	**53418**	11.00
100	210	90.0	278000	720000	800	18420	**53420**	15.00

Spherical Thrust Roller Bearing



Boundary dimensions (mm)			Basic load ratings (kN)		Speed ratings (rpm)	ГОСТ	Bearing No.	Weight (kg)
d	*D*	*B*	*Dynamic (C)*	*Static (Co)*	*Grease*			
150	215	39	272000	1070000	1500	9039230	**29230**	4.56
160	225	39	280000	1170000	1450	9039232	**29232**	4.88
170	240	42	300000	1250000	1400	9039234	**29234**	6.02
180	250	42	315000	1320000	1350	9039236	**29236**	6.25
190	270	48	390000	1650000	1200	9039238	**29238**	8.70
200	280	48	400000	1710000	1200	9039240	**29240**	8.96
220	300	48	410000	1800000	1100	9039244	**29244**	9.03
240	340	60	600000	2580000	900	9039248	**29248**	16.50
260	360	60.0	610000	2700000	900	9039252	**29252**	18.00
280	380	60	640000	3000000	850	9039256	**29256**	19.00
300	420	73	800000	3600000	750	9039260	**29260**	30.00
320	440	73	830000	3825000	700	9039264	**29264**	32.50
340	460	73	845000	4000000	700	9039268	**29268**	33.50
360	500	85	1100000	5100000	600	9039272	**29272**	51.00
380	520	85	1185000	5735000	600	9039276	**29276**	52.00
400	540	82	1205000	6000000	600	9039280	**29280**	55.00
420	580	95	1490000	7350000	530	9039284	**29284**	72.00
440	600	95	1550000	7800000	530	9039288	**29288**	77.00
460	620	95	1550000	7950000	500	9039292	**29292**	80.00
480	650	103	1760000	8850000	470	9039296	**29296**	97.00
500	670	103	1790000	9375000	470	90392/500	**292/500**	100.00

Spherical Thrust Roller Bearing



Boundary dimensions (mm)				Basic load ratings(kN)		Speed ratings(rpm)	ГОСТ	Bearing No.	Weight (kg)
d	*D*	*B*	*r*	*Dynamic (C)*	*Static (Co)*	*Grease*			
85	150	39	1.5	287	927	2600	9039317	**29317**	5.91
90	150	39	1.5	299	966	2500	9039318	**29318**	3.06
100	150	39	1.5	355	1160	2300	9039320	**29320**	3.81
110	150	39	1.5	457	1530	2000	9039322	**29322**	5.56
120	150	39	1.5	553	1880	1800	9039324	**29324**	7.63
130	150	39	1.5	643	2220	1700	9039326	**29326**	9.43
140	240	60	2.1	707	2490	1600	9039328	**29328**	11.10
150	250	60	2.1	711	2500	1550	9039330	**29330**	11.60
160	270	67	3	862	3070	1400	9039332	**29332**	15.40
170	280	67	3	880	3170	1350	9039334	**29334**	16.20
180	300	73	3	1030	3730	1250	9039336	**29336**	20.70
190	320	78	4	1170	4230	1150	9039338	**29338**	25.10
200	340	85	4	1360	5040	1050	9039340	**29340**	31.20
220	360	85	4	1380	5240	1000	9039344	**29344**	33.30
240	380	85	4	1410	5500	950	9039348	**29348**	35.50
260	420	95	5	1810	6950	850	9039352	**29352**	49.10
280	440	95	5.0	1840	7150	800	9039356	**29356**	53.20

08 | Thrust Ball & Roller Bearing

Spherical Thrust Roller Bearing

Boundary dimensions (mm)			Basic load ratings(kN)		Speed ratings (rpm)	ГОСТ	Bearing No.	Weight (kg)
d	*D*	*B*	*Dynamic (C)*	*Static (Co)*	*Grease*			
60	130	42	226000	640000	2100	9039412	**29412**	2.78
65	140	45	264000	755000	1900	9039413	**29413**	3.41
70	150	48	290000	830000	1750	9039414	**29414**	4.16
75	160	51	330000	950000	1700	9039415	**29415**	4.98
80	170	54	370000	1100000	1500	9039416	**29416**	5.95
85	180	58	390000	1180000	1400	9039417	**29417**	7.20
90	190	60	430000	1340000	1350	9039418	**29418**	8.28
100	210	67	550000	1700000	1200	9039420	**29420**	11.20
110	230	73	670000	2100000	1100	9039422	**29422**	14.78
120	250	78	780000	2440000	1000	9039424	**29424**	18.50
130	270	85	860000	2840000	960	9039426	**29426**	23.70
140	280	85	880000	3000000	960	9039428	**29428**	25.20
150	300	90	1020000	3480000	880	9039430	**29430**	30.50
160	320	95	1200000	4120000	800	9039432	**29432**	37.00
170	340	103	1330000	4600000	750	9039434	**29434**	45.00
180	360	106	1470000	5000000	700	9039436	**29436**	52.90
190	380	115	1610000	5400000	670	9039438	**29438**	62.00
200	400	122	1780000	6100000	63	9039440	**29440**	73.30

Notes

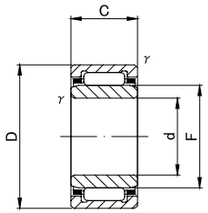
Estd. 1983
DPI BEARINGS

Date:.....

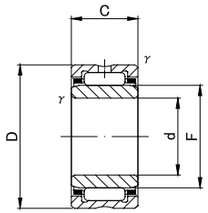
Needle Roller Bearings

DPI provide various bearing designations both in metric and inch series, including bearings with solid rings bearings with pressed steel outer ring, radial needle roller bearings and cage assembly. These bearings are used in any applications, like automobile, motorcycle, electric tools, agriculture machines, textile machines, engineering machines, printing machines and automation instruments.

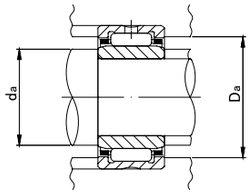
Needle Roller Bearings



NKI(d ≦ 8)



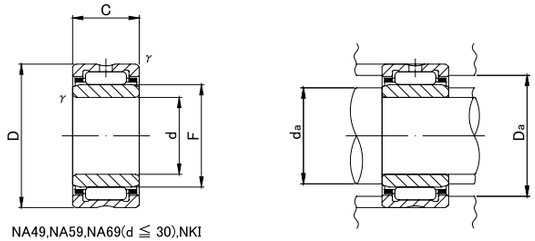
NA49,NA59,NA69(d ≦ 30),NKI



Shaft Diameter (mm)	Bearing No.					Dimensions (mm)					Standard mounting dimensions (mm)			Basic dynamic load rating	Basic Static load rating	Limiting speed *	Weight g (approx)
	NA 49	NA 59	NA 69	NA 48	NKI	d	D	C	rs min	F	da Min	da Max	Da Max	Cr N	Cor N	rpm	
5	NA495	-	-	-	-	5	13	10	0.15	7	6.2	6.7	11.8	2 960	2 690	34000	7.30
	-	-	-	-	NKI 5/12	5 0 -0.008	15	12	0.3	8	7	7.7	13	5 100	4 700	32000	11.9
	-	-	-	-	NKI 5/16	5	15	16	0.3	8	7	7.7	13	7 300	7 300	32000	16.7
6	NA 496	-	-	-	-	6	15	10	0.15	8	7.2	7.7	13.8	3 900	3 400	32 000	9.10
	-	-	-	-	NKI 6/12	6 0 -0.008	16	12	0.3	9	8	8.7	14	5 500	5 300	30 000	13.0
	-	-	-	-	NKI 6/16	6	16	16	0.3	9	8	8.7	14	7 600	8 200	30 000	17.5
7	NA 497	-	-	-	-	7	17	10	0.15	9	8.2	8.7	15.8	4 500	3 600	30 000	11.2
	-	-	-	-	NKI 7/12	7 0 -0.008	17	12	0.3	10	9	9.7	15	5 900	6 000	28 000	14.3
	-	-	-	-	NKI 7/16	7	17	16	0.3	10	9	9.7	15	8 200	9 200	28 000	19.2
8	NA 498	-	-	-	-	8 0 -0.008	19	11	0.2	10	9.2	9.7	17.4	6 200	5 000	28 000	15.0
9	-	-	-	-	NKI 9/12	9	19	12	0.3	12	11	11.5	17	6 600	7 300	26 000	16.7
	-	-	-	-	NKI 9/16	9 0 -0.008	19	16	0.3	12	11	11.5	17	9 200	11 200	26 000	22.5
	NA 499	-	-	-	-	9	20	11	0.3	12	11	11.5	18	6 600	6 300	26 000	16.7
10	NA 4900	-	-	-	-	10	22	13	0.3	14	12	13	20	9 200	10 100	24 000	24.0
	-	-	-	-	NKI 10/16	10 0 -0.008	22	16	0.3	14	12	13	20	11 800	13 700	24 000	30.0
	-	-	-	-	NKI 10/20	10	22	20	0.3	14	12	13	20	14 800	18 500	24 000	38.0
12	NA 4901	-	-	-	-	12	24	13	0.3	16	14	15	22	9 700	11 100	23 000	26.5
	-	-	-	-	NKI 12/16	12 0 -0.008	24	16	0.3	16	14	15	22	12 300	15 100	23 000	33.5
	-	-	-	-	NKI 12/20	12	24	20	0.3	16	14	15	22	15 600	20 400	23 000	42.5
	-	-	NA 6901	-	-	12	24	22	0.3	16	14	15	22	17 100	23 000	23 000	44.5

* Suitable for oil lubrication. In case of grease lubrication, down to 60% of this value

Needle Roller Bearings

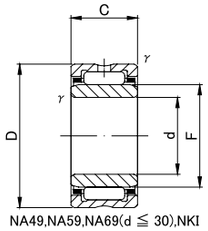


NA49,NA59,NA69(d ≦ 30),NKI

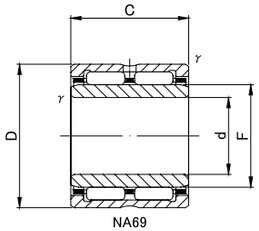
Shaft Diameter (mm)	Bearing No.					Dimensions (mm)					Standard mounting dimensions (mm)			Basic dynamic load rating	Basic Static load rating	Limiting speed *	Weight g (approx)
	NA 49	NA 59	NA 69	NA 48	NKI	d	D	C	rs min	F	da Min	da Max	Da Max	Cr N	Cor N	rpm	
15	-	-	-	-	NKI 15/16	15 0 -0.008	27	16	0.3	19	17	18	25	14 000	18 700	21 000	39.5
	-	-	-	-	NKI 15/20		27	20	0.3	19	17	18	25	17 700	25 300	21 000	50.0
	NA 4902	-	-	-	-		28	13	0.3	20	17	19	26	10 900	13 800	20 000	35.0
	-	NA 5902	-	-	-		28	18	0.3	20	17	19	26	15 700	22 100	20 000	52.0
	-	-	NA 6902	-	-		28	23	0.3	20	17	19	26	19 300	28 700	20 000	61.0
17	-	-	-	-	NKI 17/16	17 0 -0.008	29	16	0.3	21	19	20	27	14 400	20 000	19 000	43.5
	-	-	-	-	NKI 17/20		29	20	0.3	21	19	20	27	18 200	27 100	19 000	54.0
	NA 4903	-	-	-	-		30	13	0.3	22	19	21	28	11 800	15 600	18 000	39.0
	-	NA 5903	-	-	-		30	18	0.3	22	19	21	28	16 900	24 900	18 000	56.0
	-	-	NA 6903	-	-		30	23	0.3	22	19	21	28	20 800	32 500	18 000	67.0
20	-	-	-	-	NKI 20/16	20 0 -0.010	32	16	0.3	24	22	23	30	15 300	22 600	17 000	48.5
	-	-	-	-	NKI 20/20		32	20	0.3	24	22	23	30	19 400	30 500	17 000	61.0
	NA 4904	-	-	-	-		37	17	0.3	25	22	24	35	21 000	25 000	16 000	78.5
	-	NA 5904	-	-	-		37	23	0.3	25	22	24	35	29 400	38 600	16 000	115
	-	-	NA 6904	-	-		37	30	0.3	25	22	24	35	35 400	48 800	16 000	136
22	-	-	-	-	NKI 22/16	22 0 -0.010	34	16	0.3	26	24	25	32	16 300	24 900	15 000	52.0
	-	-	-	-	NKI 22/20		34	20	0.3	26	24	25	32	20 600	33 700	15 000	67.5
	NA 49/22	-	-	-	-		39	17	0.3	28	24	27	37	21 400	28 800	14 000	87.0
	-	NA 59/22	-	-	-		39	23	0.3	28	24	27	37	29 800	44 400	14 000	134
	-	-	NA 69/22	-	-		39	30	0.3	28	24	27	37	36 300	56 900	14 000	152
25	-	-	-	-	NKI 25/20	25 0 -0.010	38	20	0.3	29	27	28	36	21 600	37 200	14 000	82.0
	-	-	-	-	NKI 25/30		38	30	0.3	29	27	28	36	30 900	59 000	14 000	123
	NA 4905	-	-	-	-		42	17	0.3	30	27	29	40	23 700	30 700	13 000	92.5
	-	NA 5905	-	-	-		42	23	0.3	30	27	29	40	33 200	47 500	13 000	139
	-	-	NA 6905	-	-		42	30	0.3	30	27	29	40	42 100	64 200	13 000	160
28	-	-	-	-	NKI 28/20	28 0 -0.010	42	20	0.3	32	30	31	40	25 700	42 200	13 000	96.5
	-	-	-	-	NKI 28/30		42	30	0.3	32	30	31	40	36 900	67 100	13 000	145
	NA 49/28	-	-	-	-		45	17	0.3	32	30	31	43	24 500	32 700	13 000	101
	-	NA 59/28	-	-	-		45	23	0.3	32	30	31	43	34 300	50 500	13 000	142
	-	-	NA 69/28	-	-		45	30	0.3	32	30	31	43	41 800	64 700	13 000	176
30	-	-	-	-	NKI 30/20	30 0 -0.010	45	20	0.3	35	32	34	43	27 000	46 200	11 000	112
	-	-	-	-	NKI 30/30		45	30	0.3	35	32	34	43	38 600	73 500	11 000	171
	NA 4906	-	-	-	-		47	17	0.3	35	32	34	45	25 200	34 700	11 000	106
	-	NA 5906	-	-	-		47	23	0.3	35	32	34	45	35 200	53 700	11 000	152
	-	-	NA 6906	-	-		47	30	0.3	35	32	34	45	43 100	69 000	11 000	184

* Suitable for oil lubrication. In case of grease lubrication, down to 60% of this value

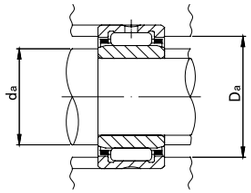
Needle Roller Bearings



NA49,NA59,NA69(d ≦ 30),NKI



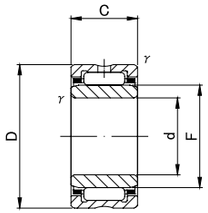
NA69



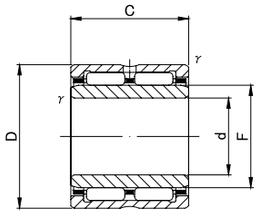
Shaft Diameter (mm)	Bearing No.					Dimensions (mm)					Standard mounting dimensions (mm)			Basic dynamic load rating	Basic Static load rating	Limiting speed *	Weight g (approx)
	NA 49	NA 59	NA 69	NA 48	NKI	d	D	C	rs min	F	da Min	da Max	Da Max	Cr N	Cor N	rpm	
32	-	-	-	-	NKI 32/20	32 0 -0.012	47	20	0.3	37	34	36	45	28 200	50 100	11 000	121
	-	-	-	-	NKI 32/30		47	30	0.3	37	34	36	45	40 500	79 800	11 000	180
	NA 49/32	-	-	-	-		52	20	0.6	40	36	39	48	31 300	47 900	10 000	165
	-	NA 59/32	-	-	-		52	27	0.6	40	36	39	48	41 900	69 900	10 000	241
	-	-	NA 69/32	-	-		52	36	0.6	40	36	39	48	53 500	95 700	10 000	295
35	-	-	-	-	NKI 35/20	35 0 -0.012	50	20	0.3	40	37	39	48	29 400	54 100	10 000	129
	-	-	-	-	NKI 35/30		50	30	0.3	40	37	39	48	42 300	86 100	10 000	192
	NA 4907	-	-	-	-		55	20	0.6	42	39	41	51	32 000	50 200	9 500	178
	-	NA 5907	-	-	-		55	27	0.6	42	39	41	51	42 900	73 200	9 500	256
	-	-	NA 6907	-	-		55	36	0.6	42	39	41	51	54 800	100 000	9 500	320
38	-	-	-	-	NKI 38/20	38 0 -0.012	53	20	0.3	43	40	42	51	30 500	58 100	9 500	136
	-	-	-	-	NKI 38/30		53	30	0.3	43	40	42	51	43 700	92 500	9 500	205
40	-	-	-	-	NKI 40/20	40 0 -0.012	55	20	0.3	45	42	44	53	31 100	60 100	9 000	143
	-	-	-	-	NKI 40/30		55	30	0.3	45	42	44	53	44 500	95 700	9 000	215
	NA 4908	-	-	-	-		62	22	0.6	48	44	47	58	41 600	67 400	8 500	245
	-	NA 5908	-	-	-		62	30	0.6	48	44	47	58	58 000	103 000	8 500	348
	-	-	NA 6908	-	-		62	40	0.6	48	44	47	58	71 300	134 400	8 500	440
42	-	-	-	-	NKI 42/20	42 0 -0.012	57	20	0.3	47	44	46	55	31 500	62 300	8 500	149
	-	-	-	-	NKI 42/30		57	30	0.3	47	44	46	55	45 200	99 000	8 500	225
45	-	-	-	-	NKI 45/25	45 0 -0.012	62	25	0.6	50	49	49.5	58	43 000	85 200	8 000	230
	-	-	-	-	NKI 45/35		62	35	0.6	50	49	49.5	58	58 100	125 500	8 000	320
	NA 4909	-	-	-	-		68	22	0.6	52	49	51	64	43 500	73 400	7 500	285
	-	NA 5909	-	-	-		68	30	0.6	52	49	51	64	60 700	112 000	7 500	396
	-	-	NA 6909	-	-		68	40	0.6	52	49	51	64	74 600	147 100	7 500	520
50	-	-	-	-	NKI 50/25	50 0 -0.012	68	25	0.6	55	54	54.5	64	45 400	94 100	7 500	270
	-	-	-	-	NKI 50/35		68	35	0.6	55	54	54.5	64	61 300	138 300	7 500	365
	NA 4910	-	-	-	-		72	22	0.6	58	54	57	68	46 200	82 100	7 000	295
	-	NA 5910	-	-	-		72	30	0.6	58	54	57	68	64 400	126 000	7 000	498
	-	-	NA 6910	-	-		72	40	0.6	58	54	57	68	79 100	163 800	7 000	530

* Suitable for oil lubrication. In case of grease lubrication, down to 60% of this value

Needle Roller Bearings



NA49,NA59,NKI



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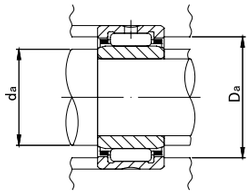
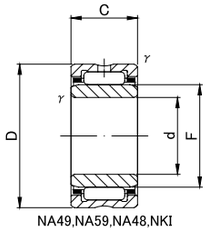


Shaft Diameter (mm)	Bearing No.					Dimensions (mm)					Standard mounting dimensions (mm)			Basic dynamic load rating	Basic Static load rating	Limiting speed *	Weight g (approx)
	NA 49	NA 59	NA 69	NA 48	NKI	d	D	C	r s min	F	da Min	da Max	Da Max	Cr N	Cor N	rpm	
55	-	-	-	-	NKI 55/25	55 0 -0.015	72	25	0.6	60	59	59.5	68	47 500	103 000	6 500	275
	-	-	-	-	NKI 55/35		72	35	0.6	60	59	59.5	68	64 100	151 000	6 500	380
	NA 4911	-	-	-	-		80	25	1	63	60	61	75	57 600	97 300	6 500	410
	-	NA 5911	-	-	-		80	34	1	63	60	61	75	82 600	154 000	6 500	559
	-	-	NA 6911	-	-		80	45	1	63	60	61	75	99 000	194 200	6 500	730
60	-	-	-	-	NKI 60/25	60 0 -0.015	82	25	0.6	68	64	66	78	54 800	116 700	6 000	395
	-	-	-	-	NKI 60/35		82	35	0.6	68	64	66	78	72 100	165 700	6 000	560
	NA 4912	-	-	-	-		85	25	1	68	64	66	80	60 100	104 900	6 000	440
	-	NA 5912	-	-	-		85	34	1	68	65	66	80	86 100	167 000	6 000	614
	-	-	NA 6912	-	-		85	45	1	68	65	66	80	103 000	210 800	6 000	785
65	NA 4913	-	-	-	-	65 0 -0.015	90	25	1	72	70	70.5	85	62 800	113 800	5 500	470
	-	NA 5913	-	-	-		90	34	1	72	70	70.5	85	89 900	180 000	5 500	655
	-	-	-	-	NKI 65/35		90	35	0.6	73	69	71	86	80 400	180 400	5 500	710
	-	-	NA 6913	-	-		90	45	1	72	70	70.5	85	107 900	226 500	5 500	840
70	-	-	-	-	NKI 70/25	70 0 -0.015	95	25	1	80	75	78	90	59 400	137 300	5 000	540
	-	-	-	-	NKI 70/35		95	35	1	80	75	78	90	78 100	194 200	5 000	755
	NA 4914	-	-	-	-		100	30	1	80	75	78	95	83 200	157 900	5 000	765
	-	NA 5914	-	-	-		100	40	1	80	75	78	95	112 000	232 000	5 000	1 060
	-	-	NA 6914	-	-		100	54	1	80	75	78	95	133 400	310 900	5 000	1 400
75	-	-	-	-	NKI 75/25	75 0 -0.015	105	25	1	85	80	83	100	76 400	145 100	4 500	675
	NA 4915	-	-	-	-		105	30	1	85	80	83	100	86 200	169 700	4 500	810
	-	-	-	-	NKI 75/35		105	35	1	85	80	83	100	102 000	209 900	4 500	945
	-	NA 5915	-	-	-		105	40	1	85	80	83	100	116 000	249 000	4 500	1 130
	-	-	NA 6915	-	-		105	54	1	85	80	83	100	138 300	330 500	4 500	1 480
80	-	-	-	-	NKI 80/25	80 0 -0.015	110	25	1	90	85	88	105	77 400	150 000	4 500	710
	NA 4916	-	-	-	-		110	30	1	90	85	88	105	87 400	174 600	4 500	855
	-	-	-	-	NKI 80/35		110	35	1	90	85	88	105	103 000	216 700	4 500	995
	-	NA 5916	-	-	-		110	40	1	90	85	88	105	117 000	257 000	4 500	1 150
	-	-	NA 6916	-	-		110	54	1	90	85	88	105	143 200	350 100	4 500	1 560
85	-	-	-	-	NKI 85/26	85 0 -0.020	115	26	1	95	90	93	110	79 700	158 900	4 200	775
	-	-	-	-	NKI 85/36		115	36	1	95	90	93	110	106 900	230 500	4 200	1 080
	NA 4917	-	-	-	-		120	35	1.1	100	91.5	98	133.5	109 800	244 200	4 000	1 280
	-	NA 5917	-	-	-		120	46	1.1	100	91.5	98	133.5	144 000	346 000	4 000	1 760
	-	-	NA 6917	-	-		120	63	1.1	100	91.5	98	133.5	172 600	466 800	4 000	2 340

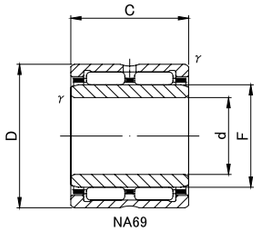
* Suitable for oil lubrication. In case of grease lubrication, down to 60% of this value

Estd. 1983 DPI BEARINGS

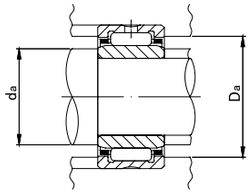
Needle Roller Bearings



NA49,NA59,NA48,NKI



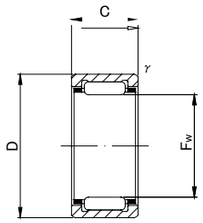
NA69



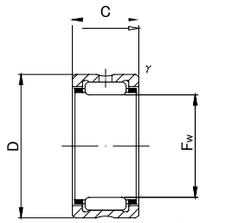
Shaft Diameter (mm)	Bearing No.					Dimensions (mm)					Standard mounting dimensions (mm)			Basic dynamic load rating	Basic Static load rating	Limiting speed *	Weight g (approx)
	NA 49	NA 59	NA 69	NA 48	NKI	d	D	C	r s min	F	da Min	da Max	Da Max	Cr N	Cor N	rpm	
90	-	-	-	-	NKI 90/26	90 0 -0.020	120	26	1	100	95	98	135	82 500	168 700	4 000	820
	-	-	-	-	NKI 90/36	90	120	36	1	100	95	98	135	109 800	244 200	4 000	1 140
	NA 4918	-	-	-	-	90	125	35	1.1	105	96.5	103	118.5	112 800	257 900	3 800	1 350
	-	NA 5918	-	-	-	90	125	46	1.1	105	96.5	103	118.5	148 000	365 000	3 800	1 840
	-	-	NA 6918	-	-	90	125	63	1.1	105	96.5	103	118.5	177 500	490 300	3 800	2 460
95	-	-	-	-	NKI 95/26	95 0 -0.020	125	26	1	105	100	103	120	84 700	177 500	3 800	860
	-	-	-	-	NKI 95/36	95	125	36	1	105	100	103	120	112 800	257 900	3 800	1 190
	NA 4919	-	-	-	-	95	130	35	1.1	110	101.5	108	123.5	116 700	270 700	3 600	1 420
	-	NA 5919	-	-	-	95	130	46	1.1	110	101.5	108	123.5	152 000	384 000	3 600	1 980
	-	-	NA 6919	-	-	95	130	63	1.1	110	101.5	108	123.5	182 400	514 800	3 600	2 580
100	-	-	-	-	NKI 100/30	100 0 -0.020	130	30	1.1	110	106.5	108	123.5	105 900	239 300	3 600	1 040
	-	-	-	-	NKI 100/40	100	130	40	1.1	110	106.5	108	123.5	133 400	323 600	3 600	1 380
	NA 4920	-	-	-	-	100	140	40	1.1	115	106.5	113	133.5	145 000	329 000	3 500	1 960
110	-	-	-	NA 4822	-	110 0 -0.020	140	30	1	120	115	118	135	93 000	239 000	3 500	1 200
	NA 4922	-	-	-	-	110	150	40	1.1	125	116.5	123	143.5	152 000	357 000	3 000	2 120
120	-	-	-	NA 4824	-	120 0 -0.020	150	30	1	130	125	128	145	97 000	259 000	3 000	1 300
	NA 4924	-	-	-	-	120	165	45	1.1	135	126.5	133	158.5	187 000	435 000	3 000	2 960
130	-	-	-	NA 4826	-	130 0 -0.025	165	35	1.1	145	136.5	143	158.5	117 000	340 000	3 000	1 960
	NA 4926	-	-	-	-	130	180	50	1.5	150	138	148	172	216 000	540 000	2 500	4 030
140	-	-	-	NA 4828	-	140 0 -0.025	175	35	1.1	155	146.5	153	168.5	121 000	363 000	2 500	2 100
	NA 4928	-	-	-	-	140	190	50	1.5	160	148	158	182	224 000	580 000	2 500	4 290
150	-	-	-	NA 4830	-	150 0 -0.025	190	40	1.1	165	156.5	163	183.5	168 000	446 000	2 500	2 880
160	-	-	-	NA 4832	-	160 0 -0.025	200	40	1.1	175	166.5	173	193.5	173 000	474 000	2 500	3 050

* Suitable for oil lubrication. In case of grease lubrication, down to 60% of this value

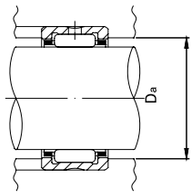
Needle Roller Bearings



NK(Fw ≦ 10)



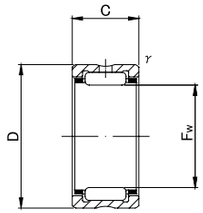
RNA49,RNA59,RNA69(Fw ≦ 35),NK



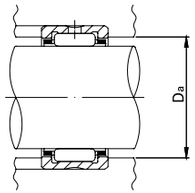
Shaft Diameter (mm)	Bearing No. RNA 49	RNA 59	RNA 69	RNA 48	NK	Dimensions (mm) Fw	D	C	r s min	Standard Mounting Dimensions (mm) DaMax	Basic dynamic load rating Cr N	Basic Static load rating Cor N	Limiting speed * rpm	Weight g (approx)
5	-	-	-	-	NK5/10	5 +0.018	10	10	0.15	6.5	2 420	1 950	40 000	3.40
	-	-	-	-	NK5/12	5 +0.010	10	12	0.15	6.5	3 080	2 660	40 000	4.20
6	-	-	-	-	NK6/10	6 +0.018	12	10	0.015	7.5	2 700	2 320	37 000	5.30
	-	-	-	-	NK6/12	6 +0.010	12	12	0.15	7.5	3 440	3 170	37 000	6.40
7	RNA 495	-	-	-	-	7 +.022	13	10	0.15	8.5	2 960	2 690	34 000	5.90
	-	-	-	-	NK7/10	7 +0.13	14	10	0.3	8.5	3 600	2 960	34 000	6.90
	-	-	-	-	NK7/12	7	14	12	0.3	8.5	4 610	4 050	34 000	8.30
8	RNA 496	-	-	-	NK8/12	8 +.022	15	10	0.15	13.8	3 900	3 400	32 000	7.30
	-	-	-	-	NK8/16	8 +0.13	15	12	0.3	13	5 100	4 700	32 000	9.00
	-	-	-	-		8	15	16	0.3	13	7 100	7 300	32 000	13.0
9	RNA 497	-	-	-	NK9/12	9 +.022	16	12	0.3	14	5 500	5 300	30 000	10.0
	-	-	-	-	NK9/16	9 +0.13	16	16	0.3	14	7 600	8 200	30 000	13.2
	-	-		-		9	17	10	0.15	15.8	4 500	3 600	30 000	9.30
10	RNA 498	-	-	-	NK10/12	10 +.022	17	12	0.3	15	5 900	6 000	28 000	10.7
	-	-	-	-	NK10/16	10 +0.13	17	16	0.3	15	8 200	9 200	28 000	14.3
	-	-	-	-		10	19	11	0.2	17.4	6 200	5 000	28 000	12.6
12	RNA 499	-	-	-	NK12/12	12 +.027	19	12	0.3	17	6 600	7 300	26 000	12.2
	-	-	-	-	NK12/16	12 +0.16	19	16	0.3	17	9 200	11 200	26 000	16.3
	-	-	-	-		12	20	11	0.3	18	6 600	6 300	26 000	13.6

* Suitable for oil lubrication. In case of grease lubrication, down to 60% of this value

Needle Roller Bearings



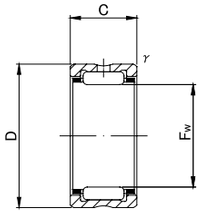
RNA49,RNA59,RNA69(Fw ≦ 35),NK



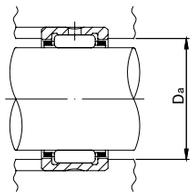
Shaft Diameter (mm)	Bearing No.					Dimensions (mm)				Standard Mounting Dimensions (mm)	Basic dynamic load rating	Basic Static load rating	Limiting speed *	Weight g (approx)
	RNA 49	RNA 59	RNA 69	RNA 48	NK	Fw	D	C	rs min	DaMax	Cr N	Cor N	rpm	
14	**RNA 4900**	-	-	-	-	14 +0.027 +0.016	22	13	0.3	20	9 200	10 100	24 000	16.5
	-	-	-	-	**NK14/16**	14	22	16	0.3	20	11 800	13 700	24 000	21.0
	-	-	-	-	**NK14/20**	14	22	20	0.3	20	14 800	18 500	24 000	26.5
15	-	-	-	-	**NK15/16**	15 +0.027 +0.016	23	16	0.3	21	12 400	14 900	23 000	22.5
	-	-	-	-	**NK15/20**	15	23	20	0.3	21	15 600	20 200	23 000	28.0
16	**RNA 4901**	-	-	-	-	16	24	13	0.3	22	9 700	11 100	23 000	18.1
	-	-	-	-	**NK16/16**	16 +0.027	24	16	0.3	22	12 300	15 100	23 000	23.0
	-	-	-	-	**NK16/20**	16 +0.016	24	20	0.3	22	15 600	20 400	23 000	29.0
	-	-	**RNA 6901**	-	-	16	24	22	0.3	22	17 100	23 000	23 000	30.0
17	-	-	-	-	**NK17/16**	17 +0.027 +0.016	25	16	0.3	23	12 800	16 300	22 000	24.5
	-	-	-	-	**NK17/20**	17	25	20	0.3	23	16 300	22 100	22 000	30.5
18	-	-	-	-	**NK18/16**	18 +0.027 +0.016	26	16	0.3	24	13 400	17 500	21 000	25.5
	-	-	-	-	**NK18/20**	18	26	20	0.3	24	17 000	23 600	21 000	32.0
19	-	-	-	-	**NK19/16**	19 +0.033 +0.020	27	16	0.3	25	14 000	18 700	21 000	27.0
	-	-	-	-	**NK19/20**	19	27	20	0.3	25	17 700	25 300	21 000	34.0
20	**RNA 4902**	-	-	-	-	20	28	13	0.3	26	10 900	13 800	20 000	21.5
	-	-	-	-	**NK20/16**	20	28	16	0.3	26	13 900	18 700	20 000	27.5
	-	**RNA 5902**	-	-	-	20 +0.033 +0.020	28	18	0.3	26	15 700	22 100	20 000	33.0
	-	-	-	-	**NK20/20**	20	28	20	0.3	26	17 600	25 400	20 000	35.5
	-	-	**RNA 6902**	-	-	20	28	23	0.3	26	19 300	28 700	20 000	37.0

* Suitable for oil lubrication. In case of grease lubrication, down to 60% of this value

Needle Roller Bearings



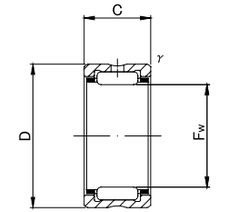
RNA49,RNA59,RNA69(Fw ≦ 35),NK



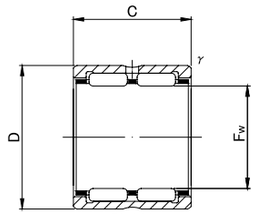
Shaft Diameter (mm)	Bearing No.					Dimensions (mm)				Standard Mounting Dimensions (mm)	Basic dynamic load rating	Basic Static load rating	Limiting speed *	Weight g (approx)
	RNA 49	RNA 59	RNA 69	RNA 48	NK	Fw		D	C	DaMax	Cr N	Cor N	rpm	
21	-	-	-	-	**NK21/16**	21	+0.033	29	16	27	14 400	20 000	19 000	29.0
	-	-	-	-	**NK21/16**	21	+0.020	29	20	27	18 200	27 100	19 000	36.0
22	**RNA 4903**	-	-	-	-	22	+0.033 +0.020	30	13	28	11 800	15 600	18 000	23.5
	-	-	-	-	**NK22/16**	22		30	16	28	14 900	21 200	18 000	30.0
	-	**RNA 5902**	-	-	-	22		30	18	28	16 900	24 900	18 000	35.0
	-	-	-	-	**NK22/20**	22		30	20	28	18 900	28 700	18 000	37.5
	-	-	**RNA 6903**	-	-	22		30	23	28	20 800	23 500	18 000	40.5
24	-	-	-	-	**NK24/16**	24	+0.033	32	16	30	15 300	22 600	17 000	32.0
	-	-	-	-	**NK24/20**	24	+0.020	32	20	30	19 400	30 500	17 000	40.5
25	-	-	-	-	**NK25/16**	25	+0.033 +0.020	33	16	31	15 800	23 700	16 000	33.5
	-	-	-	-	**NK25/20**	25		33	20	31	20 000	32 200	16 000	42.0
	RNA 4904	-	-	-	-	25		37	17	35	21 000	25 000	16 000	55.5
	-	**RNA 5904**	-	-	-	25		37	23	35	29 400	38 600	16 000	84.0
	-	-	**RNA 6904**	-	-	25		37	30	35	35 400	48 800	16 000	95.5
26	-	-	-	-	**NK26/16**	26	+0.033	34	16	32	16 300	24 900	15 000	34.5
	-	-	-	-	**NK26/20**	26	+0.020	34	20	32	20 600	33 700	15 000	43.5
28	-	-	-	-	**NK28/20**	28	+0.033 +0.020	37	20	35	21 700	37 100	14 000	51.5
	-	-	-	-	**NK28/30**	28		37	30	35	31 100	58 900	14 000	83.5
	RNA 49/22	-	-	-	-	28		39	17	37	21 400	28 800	14 000	56.5
	-	**RNA 59/22**	-	-	-	28		39	23	37	29 800	44 400	14 000	92.0
	-	-	**RNA 69/22**	-	-	28		39	30	37	36 300	56 900	14 000	97.5
29	-	-	-	-	**NK29/20**	29	+0.033	38	20	36	21 600	37 200	14 000	57.0
	-	-	-	-	**NK29/30**	29	+0.020	38	30	36	30 900	59 000	14 000	85.0

* Suitable for oil lubrication. In case of grease lubrication, down to 60% of this value

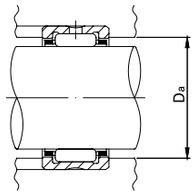
Needle Roller Bearings



RNA49,RNA59,RNA69(Fw ≦ 35),NK



RNA69



Shaft Diameter (mm)	Bearing No. RNA 49	RNA 59	RNA 69	RNA 48	NK	Dimensions (mm) Fw	D	C	rs min	Standard Mounting Dimensions (mm) DaMax	Basic dynamic load rating Cr N	Basic Static load rating Cor N	Limiting speed * rpm	Weight g (approx)
30	-	-	-	-	**NK30/20**	30	40	20	0.3	38	25 100	40 100	13 000	64.5
	-	-	-	-	**NK30/30**	30	40	30	0.3	38	36 000	63 800	13 000	97.5
	RNA 4905	-	-	-	-	30 +0.033 +0.020	42	17	0.3	40	23 700	30 700	13 000	64.0
	-	**RNA 5905**	-	-	-	30	42	23	0.3	40	33 200	47 500	13 000	101
	-	-	**RNA 6905**	-	-	30	42	30	0.3	40	42 100	64 200	13 000	111
32	-	-	-	-	**NK32/20**	32	42	20	0.3	40	25 700	42 200	13 000	68.0
	-	-	-	-	**NK32/30**	32	42	30	0.3	40	36 900	67 100	13 000	102
	RNA 49/28	-	-	-	-	32 +0.041 +0.025	45	17	0.3	43	24 500	32 700	13 000	76.5
	-	**RNA 59/28**	-	-	-	32	45	23	0.3	43	34 300	50 500	13 000	108
	-	-	**RNA 69/28**	-	-	32	45	30	0.3	43	41 800	64 700	13 000	133
35	-	-	-	-	**NK35/20**	35	45	20	0.3	43	27 000	46 200	11 000	73.5
	-	-	-	-	**NK35/30**	35	45	30	0.3	43	38 600	73 500	11 000	112
	RNA 4906	-	-	-	-	35 +0.041 +0.025	47	17	0.3	45	25 200	34 700	11 000	72.5
	-	**RNA 5906**	-	-	-	35	47	23	0.3	45	35 200	53 700	11 000	108
	-	-	**RNA 6906**	-	-	35	47	30	0.3	45	43 100	69 000	11 000	125
37	-	-	-	-	**NK37/20**	37 +0.041 +0.025	47	20	0.3	45	28 200	51 100	11 000	77.5
	-	-	-	-	**NK37/30**	37	47	30	0.3	45	40 500	79 800	11 000	117
38	-	-	-	-	**NK38/20**	38 +0.041 +0.025	48	20	0.3	46	28 100	52 200	11 000	79.0
	-	-	-	-	**NK38/30**	38	48	30	0.3	46	40 300	80 000	11 000	119
40	-	-	-	-	**NK40/20**	40	50	20	0.3	48	29 400	54 100	10 000	83.0
	-	-	-	-	**NK40/30**	40	50	30	0.3	48	42 300	86 100	10 000	125
	RNA 49/32	-	-	-	-	40 +0.041 +0.025	52	20	0.6	48	31 300	47 900	10 000	96.0
	-	**RNA 59/32**	-	-	-	40	52	27	0.6	48	41 900	69 900	10 000	149
	-	-	**RNA 69/32**	-	-	40	52	36	0.6	48	53 500	95 700	10 000	172
42	-	-	-	-	**NK42/20**	42	52	20	0.3	50	29 900	56 200	9 500	86.5
	-	-	-	-	**NK42/30**	42	52	30	0.3	50	43 000	89 500	9 500	130
	RNA 4907	-	-	-	-	42 +0.041 +0.025	55	20	0.6	51	32 000	50 200	9 500	113
	-	**RNA 5907**	-	-	-	42	55	27	0.6	51	42 900	73 200	9 500	176
	-	-	**RNA 6907**	-	-	42	55	36	0.6	51	54 800	100 000	9 500	200

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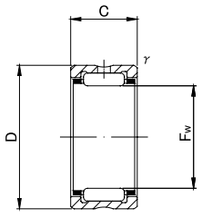
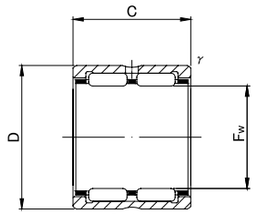
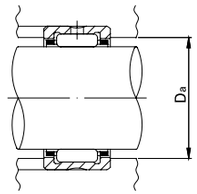
Needle Roller Bearings



RNA49,RNA59,RNA48,NK



RNA69



Shaft Diameter (mm)	Bearing No. RNA 49	RNA 59	RNA 69	RNA 48	NK	Dimensions (mm) Fw		D	C	rs min	Standard Mounting Dimensions (mm) DaMax	Basic dynamic load rating Cr N	Basic Static load rating Cor N	Limiting speed * rpm	Weight g (approx)
43	-	-	-	-	**NK43/20**	43	+0.041	53	20	0.3	51	30 500	58 100	9 500	88.5
	-	-	-	-	**NK43/30**	43	+0.025	53	30	0.3	51	43 700	92 500	9 500	133
45	-	-	-	-	**NK45/20**	45	+0.041	55	20	0.3	53	31 100	60 100	9 000	92.0
	-	-	-	-	**NK45/30**	45	+0.025	55	30	0.3	53	44 500	95 700	9 000	138
47	-	-	-	-	**NK47/20**	47	+0.041	57	20	0.3	55	31 500	62 300	8 500	95.0
	-	-	-	-	**NK47/30**	47	+0.025	57	30	0.3	55	45 200	99 000	8 500	144
48	**RNA 4908**	-	-	-	-	48	+0.041	62	22	0.6	58	41 600	67 400	8 500	152
	-	**RNA 5908**	-	-	-	48	+0.025	62	30	0.6	58	58 000	10 300	8 500	225
	-	-	**RNA 6908**	-	-	48		62	40	0.6	58	71 300	134 400	8 500	275
50	-	-	-	-	**NK48/20**	50	+0.041	62	25	0.6	58	43 000	85 200	8 000	159
	-	-	-	-	**NK48/30**	50	+0.025	62	25	0.6	58	58 100	125 500	8 000	225
52	**RNA 4909**	-	-	-	-	52	+0.049	68	22	0.6	64	43 500	73 400	7 500	197
	-	**RNA 5909**	-	-	-	52	+0.030	68	30	0.6	64	60 700	112 000	7 500	232
	-	-	**RNA 6909**	-	-	52		68	40		64	74 600	147 100	7 500	355
55	-	-	-	-	**NK55/20**	55	+0.049	68	25	0.6	64	45 400	94 100	7 500	193
	-	-	-	-	**NK55/30**	55	+0.030	68	35	0.6	64	61 300	138 300	7 500	255

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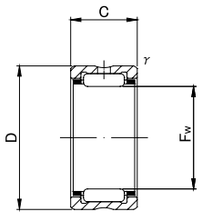
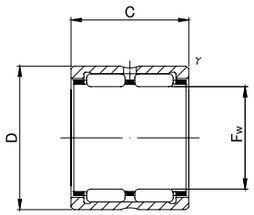
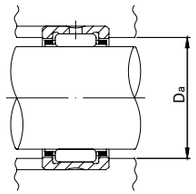
Needle Roller Bearings



RNA49,RNA59,RNA48,NK



RNA69



Shaft Diameter (mm)	Bearing No.					Dimensions (mm)				Standard Mounting Dimensions (mm)	Basic dynamic load rating	Basic Static load rating	Limiting speed *	Weight g (approx)
	RNA 49	RNA 59	RNA 69	RNA 48	NK	Fw	D	C	r s min	DsMax	Cr N	Cor N	rpm	
58	**RNA 4910**	-	-	-	-	58 +0.049 +0.030	72	22	0.6	68	46 200	82 100	7 000	179
	-	**RNA 5910**	-	-	-	58	72	30	0.6	68	64 400	126 000	7 000	289
	-	-	**RNA 6910**	-	-	58	72	40	0.6	68	79100	163 800	7 000	32.0
60	-	-	-	-	**NK60/25**	60 +0.049 +0.030	72	25	0.6	68	47 500	103 000	6 500	187
	-	-	-	-	**NK60/35**	60	72	35	0.6	68	64 100	151 000	6 500	260
63	**RNA 4911**	-	-	-	-	63 +0.049 +0.030	80	25	1	75	57 600	97 300	6 500	265
	-	**RNA 5911**	-	-	-	63	80	34	1	75	82 600	154 000	6 500	367
	-	-	**RNA 6911**	-	-	63	80	45	1	75	99 000	194 000	6 500	475
65	-	-	-	-	**NK65/25**	65 +0.049 +0.030	78	25	0.6	74	49 600	111 800	6 000	225
	-	-	-	-	**NK65/35**	65	78	35	0.6	74	67 000	164 800	6 000	315
68	-	-	-	-	**NK68/25**	68 +0.049 +0.030	82	25	0.6	78	54 800	116 700	6 000	250
	-	-	-	-	**NK68/35**	68	82	35	0.6	78	72 100	165 700	6 000	350
	RNA 4912	-	-	-	-	68	85	25	1	80	60 100	104 900	6 000	285
	-	**RNA 5912**	**RNA 6912**	-	-	68	85	34	1	80	86 100	167 000	6 000	408
	-	-	-	-	-	68	85	45	1	80	103 000	210 800	6 000	510
70	-	-	-	-	**NK70/25**	70 +0.049 +0.030	85	25	0.6	81	55 500	120 600	5 500	280
	-	-	-	-	**NK70/35**	70	85	35	0.6	81	73 000	170 600	5 500	395
72	**RNA 4913**	-	-	-	-	72 +0.049 +0.030	90	25	1	85	62 800	113 800	5 500	325
	-	**RNA 5913**	-	-	-	72	90	34	1	85	89 900	180 000	5 500	462
	-	-	**RNA 6913**	-	-	72	90	35		85	107 900	226 500	5 500	585

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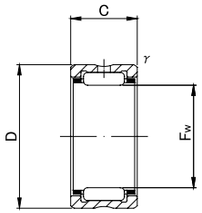
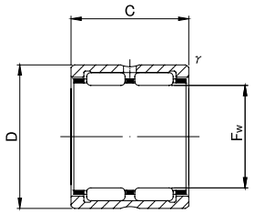
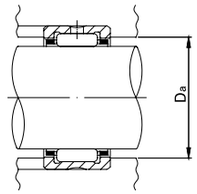
Needle Roller Bearings



RNA49,RNA59,RNA48,NK



RNA69



Shaft Diameter (mm)	Bearing No. RNA 49	RNA 59	RNA 69	RNA 48	NK	Dimensions (mm) Fw		D	C	rs min	Standard Mounting Dimensions (mm) DsMax	Basic dynamic load rating Cr N	Basic Static load rating Cor N	Limiting speed * rpm	Weight g (approx)
73	-	-	-	-	**NK73/25**	73	+0.049	90	25	0.6	86	61 100	126 500	5 500	335
	-	-	-	-	**NK73/35**	73	+0.030	90	35	0.6	86	80 400	180 400	5 500	475
75	-	-	-	-	**NK75/25**	75	+0.049	92	25	0.6	88	62 200	130 400	5 500	345
	-	-	-	-	**NK75/35**	75	+0.030	92	35	0.6	88	82 700	186 300	5 500	485
80	-	-	-	-	**NK80/25**	80		95	25	1	90	59 400	137 300	5 000	315
	-	-	-	-	**NK80/35**	80		95	35	1	90	78 100	194 200	5 000	445
	RNA 4914	-	-	-	-	80	+0.049	100	30	1	95	83 200	157 900	5 000	495
	-	**RNA 5914**	-	-	-	80	+0.030	100	40	1	95	112 000	232 000	5 000	706
	-	-	**RNA 6914**	-	-	80		100	54	1	95	133 400	310 900	5 000	910
85	-	-	-	-	**NK85/25**	85		105	25	1	100	76 400	145 100	4 500	435
	RNA 4915	-	-	-	-	85		105	35	1	100	86 200	169 700	4 500	525
	-	-	-	-	**NK85/35**	85	+0.058	105	30	1	100	102 000	209 900	4 500	610
	-	**RNA 5915**	-	-	-	85	+0.036	105	40	1	100	116 000	249 000	4 500	745
	-	-	**RNA 6915**	-	-	85		105	54	1	100	138 300	330 500	4 500	960
90	-	-	-	-	**NK90/25**	90		110	25	1	105	77 400	150 000	4 500	456
	RNA 4916	-	-	-	-	90		110	35	1	105	87 400	174 600	4 500	550
	-	-	-	-	**NK90/35**	90	+0.058	110	30	1	105	103 000	216 700	4 500	640
	-	**RNA 5916**	-	-	-	90	+0.036	110	40	1	105	117 000	257 000	4 500	787
	-	-	**RNA 6916**	-	-	90		110	54	1	105	143 200	350 100	4 500	1 010
95	-	-	-	-	**NK95/26**	95	+0.058	115	26	1	110	79 700	158 900	4 200	495
	-	-	-	-	**NK95/36**	95	+0.036	115	36	1	110	106 900	230 500	4 200	690
100	-	-	-	-	**NK100/26**	100		120	26	1	115	82 500	168 700	4 000	525
	RNA 4917	-	-	-	-	100		120	35	1.1	113.5	109 800	244 200	4 000	705
	-	-	-	-	**NK100/36**	100	+0.058	120	36	1	115	109 900	244 200	4 000	725
	-	**RNA 5917**	-	-	-	100	+0.036	120	46	1.1	113.5	144 000	346 000	4 000	1 000
	-	-	**RNA 6917**	-	-	100		120	63	1.1	113.5	172 600	466 800	4 000	1 300

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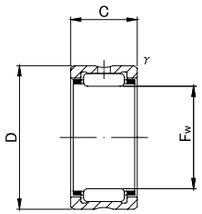
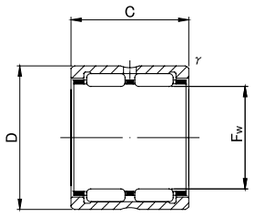
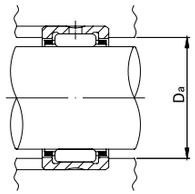
Needle Roller Bearings



RNA49,RNA59,RNA48,NK



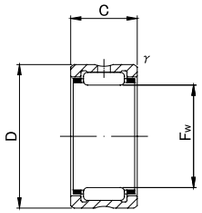
RNA69



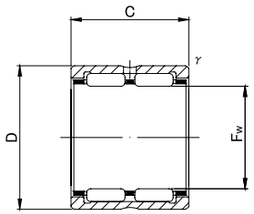
Shaft Diameter (mm)	Bearing No.					Dimensions (mm)					Standard Mounting Dimensions (mm)	Basic dynamic load rating	Basic Static load rating	Limiting speed *	Weight g (approx)
	RNA 49	RNA 59	RNA 69	RNA 48	NK	Fw		D	C	r_s min	DsMax	Cr N	Cor N	rpm	
105	-	-	-	-	**NK105/26**	105	+0.058 +0.036	125	26	1	120	84 700	177 500	3 800	545
	RNA 4918	-	-	-	-	105		125	35	1.1	118.5	112 800	257 900	3 800	740
	-	-	-	-	**NK105/36**	105		125	36	1	120	112 800	257 900	3 800	760
	-	**RNA 5918**	-	-	-	105		125	46	1.1	118.5	148 000	365 000	3 800	1 040
	-	-	**RNA 6918**	-	-	105		125	63	1.1	118.5	177 500	490 300	3 800	1 360
110	-	-	-	-	**NK110/30**	110	+0.058 +0.036	130	30	1.1	123.5	105 900	239 300	3 600	660
	RNA 4919	-	-	-	-	110		130	35	1.1	123.5	116 700	270 700	3 600	770
	-	-	-	-	**NK110/40**	110		130	40	1.1	123.5	133 400	323 600	3 600	880
	-	**RNA 5919**	-	-	-	110		130	46	1.1	123.5	152 000	384 000	3 600	1 130
	-	-	**RNA 6919**	-	-	110		130	63	1.1	1123.5	182 400	514 800	3 600	1 420
115	**RNA 4920**	-	-	-	-	115	+0.058 +0.036	140	40	1.1	133.5	145 000	329 000	3 500	1 190
120	-	-	-	**RNA 4822**	-	120	+0.058 +0.036	140	30	1	135	93 000	239 000	3 500	790
125	**RNA 4922**	-	-	-	-	125	+0.068 +0.036	150	40	1.1	143.5	152 000	357 000	3 000	1 280
130	-	-	-	**RNA 4824**	-	130	+0.068 +0.036	150	30	1	145	97 000	259 000	3 000	850
135	RNA 4924	-	-	-	-	135	+0.068 +0.036	165	45	1.1	158.5	187 000	435 000	1 930	1 930

* Suitable for oil lubrication. In case of grease lubrication, down to 60% of this value

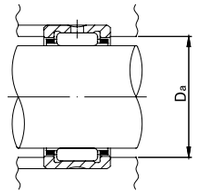
Needle Roller Bearings



RNA49,RNA59,RNA48,NK



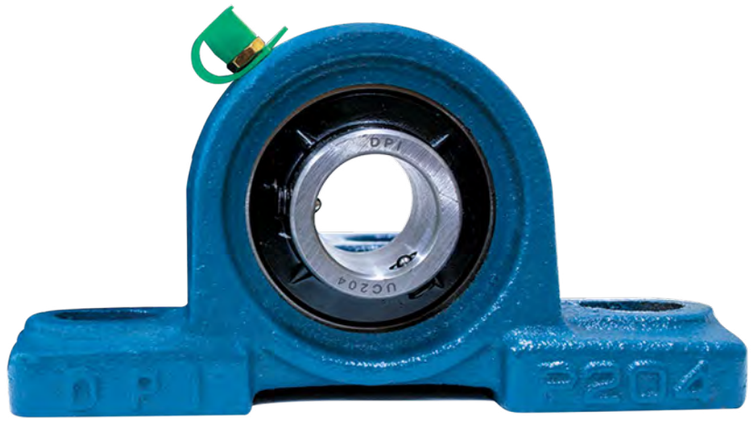
RNA69



Shaft Diameter (mm)	Bearing No.					Dimensions (mm)					Standard Mounting Dimensions (mm)	Basic dynamic load rating	Basic Static load rating	Limiting speed *	Weight g (approx)
	RNA 49	RNA 59	RNA 69	RNA 48	NK	Fw		D	C	r_s min	DsMax	Cr N	Cor N	rpm	
145	**-**	**-**	**-**	**RNA 4826**	**-**	145	+0.068 +0.043	165	35	1.1	158.5	117 000	340 000	3 000	1 100
150	**RNA 4926**	**-**	**-**	**-**	**-**	150	+0.068 +0.043	180	50	1.5	172	216 000	540 000	2 500	2 360
155	**-**	**-**	**-**	**RNA 4828**	**-**	155	+0.068 +0.043	175	35	1.1	168.5	121 000	363 000	2 500	1 170
160	**RNA 4928**	**-**	**-**	**-**	**-**	160	+0.068 +0.043	190	50	1.5	182	224 000	580 000	2 500	2 500
165	**-**	**-**	**-**	**RNA 4830**	**-**	165	+0.068 +0.043	190	40	1.1	183.5	168 000	446 000	2 500	1 750
175	**-**	**-**	**-**	**RNA 4832**	**-**	175	+0.068 +0.043	200	40	1.1	193.5	173 000	474 000	2 500	1 850

* Suitable for oil lubrication. In case of grease lubrication, down to 60% of this value

Insert Ball Bearing Units



Insert Ball Bearing Units

Insert ball bearing unit is consist of a double sealed, single row bearing and one of various types ofhousings (Cast iron housing, Stamping steel housing, Stainless steel housing, Engineering plastic block, Nodular cast iron housing, Nickel plating housing, Zinc alloy block, etc.)

Bearing Units Structure

The outer ring of the self-contained ball bearings in ground to a sphere and the bore of housing in machined to a matching radius. This permits self-aligning between the two members. Above figure is a view of a Pillow Block which is the most popular type of Insert Ball Bearing Units with set crew locking. The bearing units have various types of perfect sealing devices and can operate satisfactorily under hardworking conditions, especially for machines operated in dusty or muddy surroundings. Thus, they are widely used in agricultural machinery, construction machinery, textile machinery, foodstuff machinery and conveying devices, etc.

Note:
1. When the fit between bearing and housing is clearance fit, the bearing's outer ring has anti-rotation ball (pin).
2. Two set screws on the wide inner ring at 120 °C apart.
3. Usually, The Outer ring of the DPI Bearings had grease groove, bearing having no grease groove are to be provided too.

The Features of Products

Rational Self - Alignment

The outside diameter of the self-contained bearing is spherical to match corresponding spherical inside diameter of the housing providing self- aligning between these two members, which compensates for misalignments of the units resulted from errors in mounting and distorting of the foundation.

Large load carrying capacity

Being the same as 6200 and 6300 series single row deep groove ball bearing in internal construction of the the self-contained bearings, Insert ball bearing units can sustain radial loads and sustain thrust loads as well. And they are low noise during operating.

Longer Service Life

Insert ball bearing units are often used in severe operating conditions where they are exposed to dirts,moisture and high temperature and in such applications, the grease inside the self-contained bearing deteriorates in a short time. It is required that relubricate the units at suitable intervals so as to replace deteriorating grease with fresh grease. Insert ball bearing units with east iron housings are all relubricable types equipped with grease fitting to secure full performance and longer service life of the units under any operating conditions.

Insert Ball Bearing Units

Bearings \ Housings		Cast Iron Housings						Pressed Steel Plate Housing			
		P.PK, LP	PA,PG,PA-A	F,FU	FL,FLU LF,FD	FC	T,ST,K	PP	PFL	PF	PFT
Setscrew Type	UC	UCP UCPK	UCPA UCPA-A UCPG	UCF	UCFL	UCFC	UCT UCST UCK				
	UCX	UCPX		UCFX							
	SB,SB-G	SBP-G SBLP-G			SBFL-G SBLF-G SBFD-G			SBPP	SBPFL	SBPF	SBPFT
Eccentric Locking Collar Type	NA	NAP NAPK		NAK NAFU	NAFL ANFLU	NAFC	NAT				
	SA,SA-G	SAP-G SALP-G		SAF-G	SALF-G SAFD-G			SAPP	SAPFL	SAPF	SAPFT
Adapter Type	UK	UKP+H		UKF+H	UKFL+H	UKFC+H					
	UK	UKP+H		UKF+H	UKFL+H						

Others										
UCPH	SALFTC-G SBLFTC-G	SAPFTD-G SBFTD-G	UCC	UCFB	UCFA	UCHA	Disk Harrow Units		Farm Implement Ball Bearings	
HC	RB	ER SER	CSB	CSA CSA-F	CS-2RS	ORAE	NAA	Eccentric locking collar A200 A300	Adaper Sleeve Locking H2300	

Types of Insert Ball Bearing Units

1. Pillow Blocks
UCP, NAP,UKP+H,SBP-G,SAP-G, UCPK, NAPK,UCAK, NAAK, UCPX,SALP-G,SBLP-G, UCP,NAF,UKP+H
Pillow blocks are most extensively used among the bearing units, UCP, UCPK, UCAK and SBLPG, these types are fixed to the shafts by means of the sets crews prepared in the inner ring, NAPK and SALP-G type are fixed to the shafts by use of sets crews prepared in the eccentric locking collar. UKP type is an-nounced to the shafts by use of adapter sleeve

2. High center height pillow blocks
UCPH, NAPH, UKPH+H
It is one type of pillow blocks with higher center height.

3. Tapped-base pillow blocks
UCPA, NAPA, UKPA+H, UCPA-A, UCPG
It has compact structure, saving mounting space. It can be fitted with bolts from the underneath of the base

4. Square flange units
UCF, NAF, NAFU, UKF+H, SAF-G, UCFX
These bearing units are designed to fix at the sides of the machine which are to the center of the shafts by means of 4 bolts. The mounting method is widely used in the machines. The setscrews, the eccentric locking collar and the adapter sleeve bearings have the same mounting method as the P housings do.

5. Round flange cartridge units
UCFC, NAFC, UKFC+H
These bearing units are installed in the holes on the side of the places where concentricity demanded,

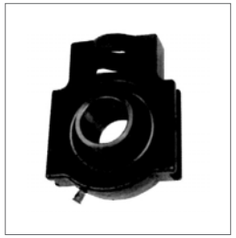
Types of Insert Ball Bearing Units

6. Oval flange units
UCFL, NAFLU,UKFL+H, SBFLG, NAFL
This type of housing is useful in saving space and weight. It can be installed by means of two bolts. The set bolt pitch is the same as that of the square flange type.

7. LF,FTC,FD,PFTD and PFTD-G type two bolt flange are for use with SB(or SB-G) and SA (or SA-G) type insert ball bearing only.
SALF-G, SBLF-G, SALFTC-G, SBLFTC-G
SAFD-G, SBFD-G SAPFTD, SBPFTD, OR SAPFTD-G, SBPFTD-G
LF, LFTC,FD PFTD,PFTD-G
Material: Grey Iron Bolt Configuration: Round Hole
Ductile Square Hole

8. Flange bracket units
UCFB
This type has three set holes on only one side of the flange. This type of bear-ing unit used where the mounting space is limited, and the housing can be fixed on only one side,

9. Adjustable flange units
UCFA
This type has two bolt base with one side adjustable, enabling distance from center of shaft to be varied



10. Take up units
UCT, NAT, UCK, UCST
This type is applied to the machines in which the center of main shaft need free alignment.

11 | Insert Ball Bearing Units

Types of Insert Ball Bearing Units

11. Pressed housing pillow blocks
SAPP, SBPP
Pressed housings are with light weight and simple structure and consist of two pieces of pressed steel plates. This type is applied to the machine whose rotating speed is low or medium, or the machine with light load. The insert ball bearing for the pressed housings are usually SA or SB series.

12. Pressed housing round flange units
SAPF, SBPF
This type consists of pieces pf pressed steel plates, mounted with SA2 or SB2. It has light weight and simple structure which is applied to the machine of which the rotating speed is low or medium, or the machine load is light.

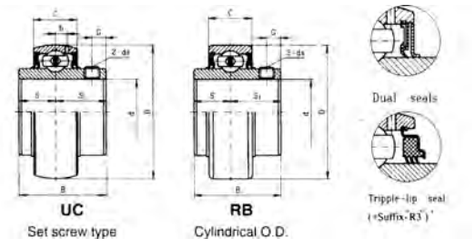
13. Pressed housing flange units
SAPFT, SBPFT
This type has the same function as the pressed round flange housing. It can be used where the mounting space is limited, because it takes smaller space.

14. Pressed housing oval flange units
SAPFL, SBPFL
This type has only two bolts holes. It needs much smaller mounting space. Its function is the same as the above mentioned pressed flange housings.

Notes

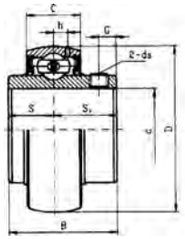
Date:.....

Insert Ball Bearings Units



Bearing no.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	Dimensions(mm) D	B	C	S	S_1	G	H	ds	Basic load rating (kN) Dynamic Cr	Static Cr	Weight (Kg) UC	RB
UC202 RB202-10 203 203-11	5/8 11/16	15 17	40 1.5748	27.4 1.0787	14 0.5512	11.5 0.4528	15.9 0.6260	4.5 0.1772	3.5 0.1378	M5 x 0.8 10# -32UNF	7.35	4.78	0.12 0.12 0.11 0.11	- - - -
UC204-12 RB204	3/4	20	47 1.8540	31 1.2205	16 0.62990	12.7 0.5000	18.3 0.7205	4.7 0.1850	4.4 0.1732	M6 x 1 1/4-28UNF	9.88	6.65	0.18 0.17	0.19 0.18
UC205-14 RB205-15 205 205-16	7/8 15/16 1	25	52 2.0472	34.1 1.3425	17 0.6693	14.3 0.5630	19.8 0.7795	5.5 0.2165	4.3 0.1693	M6 x 1 1/4-28UNF	10.80	7.88	0.23 0.22 0.21 0.20	0.26 0.25 0.24 0.23
UC206-18 RB206 206-19 206-20	1-1/8 1-3/16 1-1/4	30	62 2.4409	38.1 1.5000	19 0.7480	15.9 0.6260	22.2 0.8740	5.5 0.2165	5 0.1969	M6 x 1 1/4-28UNF	15.00	11.20	0.34 0.33 0.31 0.30	038 0.36 0.35 0.34
UC207-20 RB207-21 207-22 207 207-23	1-1/4 1-5/16 1-3/8 1-7/16	35	72 2.8346	42.9 1.6890	20 0.7870	17.5 0.6890	25.4 1.0000	6.5 0.2559	5.8 0.2283	M8 x 1 5/16-24UNF	19.80	15.20	0.53 0.51 0.48 0.47 0.45	0.61 0.59 0.56 0.54 0.52
UC208-24 RB208-25 208	1-1/2 1-9/16	40	80 3.1496	49.2 1.9370	21 0.8268	19 0.7480	30.2 1.1890	8 0.3150	6.3 0.2480	M8 x 1 5/16-24UNF	22.80	18.20	0.68 0.65 0.64	0.76 0.74 0.73
UC209-26 RB209-27 209-28 209	1-5/8 1-11/16 1-3/4	45	85 3.3465	49.2 1.9370	22 0.8661	19 0.7480	30.2 1.1890	8 0.3150	6.8 0.2677	M8 x 1 5/16-24UNF	24.50	20.80	0.78 0.74 0.70 0.68	0.88 0.85 0.81 0.79
UC210-30 RB210-31 210 210-32	1-7/8 1-15/16 2	50	90 3.5433	51.6 2.0315	23 0.9055	19 0.7480	32.6 1.2835	9 0.3543	6.5 0.2559	M10 x 1.25 3/8-24UNF	27.00	23.20	0.87 0.82 0.80 0.78	0.98 0.93 0.93 -
UC211-32 RB211-34 211 211-35	2 2-1/8 2-3/16	55	100 3.9370	55.6 2.1890	25 0.9843	22.2 0.8740	33.4 1.3150	9 0.3543	7.2 0.2835	M10 x 1.25 3/8-24UNF	33.50	29.20	1.27 1.17 1.12 1.10	1.40 1.30 1.24 1.22
UC212-36 RB212 212-38 212-39	2-1/4 2-3/8 2-7/16	60	110 4.3307	65.1 2.5630	27 1.0630	25.4 1.0000	39.7 1.5630	10.5 0.4134	8.2 0.3228	M10 x 1.25 3/8-24UNF	36.80	32.80	1.67 1.53 1.53 1.45	1.88 1.74 1.72 1.65
UC213-40 213	2-1/2	65	120 4.7244	65.1 2.5630	28 1.1024	25.4 1.0000	39.7 1.5630	12 0.4724	8 0.3150	M12 x 1.25 7/16-20UNF	44.00	40.00	1.94 1.86	- -
UC214-44 214	2-3/4	70	125 4.9213	74.6 2.9370	30 1.1811	30.2 1.1890	44.4 1.7480	12 0.4724	9 0.3543	M12 x 1.25 7/16-20UNF	46.80	45.00	2.06 2.05	- -
UC215-47 215 215-48	2-15/16 3	75	130 5.1181	77.8 3.0630	30 1.1811	33.3 1.3110	44.5 1.7520	12 0.4724	9 0.3543	M12 x 1.25 7/16-20UNF	50.80	49.50	2.30 2.21 2.13	- - -
UC216		80	140 5.5118	82.6 3.2520	33 1.2992	33.3 1.3110	49.3 1.9410	14 0.5512	10.3 0.4055	M12 x 1.25 7/16-20UNF	55.00	54.20	2.79	- -
UC217-52 217	3-1/4	85	150 5.9055	85.7 3.3740	35 1.3740	34.1 1.3425	51.6 2.0315	14 0.5512	11 0.4331	M12 x 1.25 7/16-20UNF	64.00	63.80	3.60 3.38	- -
UC218-56 218	3-1/2	90	160 6.2992	96 3.7795	37 1.4567	39.7 1.5630	56.3 2.2165	14 0.5512	12 0.4724	M12 x 1.25 1/2-20UNF	73.80	71.50	4.56 4.45	- -

Insert Ball Bearings

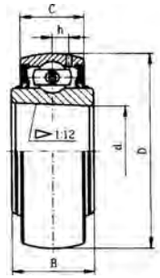


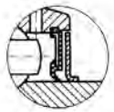

Dual seals

UC Set screw type

Bearing no.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	D	B	C	S	S_1	G	H	ds	Basic load rating (kN) Dynamic Cr	Basic load rating (kN) Static Cr	Weight (Kg)
UC305-14 305-15 305 305-16	7/8 15/16 1	25	62 2.4409	38 1.4961	21 0.8268	15 0.5906	23 0.9055	6 0.2362	6.2 0.2441	M6 x 1 1/4-28UNF	17.20	11.50	0.38 0.36 0.35 0.34
UC306-18 306 306-19	1-1/8 1-3/16	30	72 2.8346	43 1.6929	24 0.9449	17 0.6693	26 1.0236	6 0.2362	6.5 0.2559	M6 x 1 1/4-28UNF	20.80	15.20	0.58 0.56 0.56
UC307-20 307-21 307-22 307	1-1/4 1-5/16 1-3/8 	35	80 3.1496	48 1.8898	25 0.9843	19 0.7480	29 1.1417	8 0.3150	7.2 0.28350	M8 x 1 5/16-24UNF	25.80	19.20	0.77 0.74 0.71 0.71
UC308-24 308-25 308	1-1/2 1-9/16 	40	90 3.5433	52 2.0472	28 1.1024	19 0.7480	33 1.2992	10 0.3937	8.5 0.3346	M10 x 1.25 3/8-24UNF	31.20	24.00	1.00 0.98 0.96
UC309-26 309-27 309-28 309	1-5/8 1-11/16 1-3/4 	45	100 3.9370	57 2.2441	30 1.1811	22 0.8661	35 1.3780	10 0.3937	9 0.3543	M10 x 1.25 3/8-24UNF	40.80	31.80	1.36 1.33 1.30 1.28
UC310-30 310-31 310	1-7/8 1-15/16 	50	110 4.3307	61 2.4016	32 1.2598	22 0.8661	39 1.5354	12 0.4724	9.9 0.3898	M12 x 1.25 7/16-20UNF	47.50	37.80	1.74 1.68 1.65
UC311-32 311-34 311 311-35	2 2-1/8 2-3/16	55	120 4.7244	66 2.5984	34 1.3386	25 0.9843	41 1.6142	12 0.4724	10.6 0.4173	M12 x 1.25 7/16-20UNF	55.00	44.80	2.08 1.90 1.90 1.87
UC312-36 312 312-38 312-39	2-1/4 2-3/8 2-7/16	60	130 5.1181	71 2.7953	36 1.4173	26 1.0236	45 1.7717	12 0.4724	11.3 0.4449	M12 x 1.25 7/16-20UNF	62.80	51.80	2.65 2.60 2.57 2.50
UC313-40 313	2-1/2	65	140 5.5118	75 2.9528	38 1.4961	30 1.1811	45 1.7717	12 0.4724	12.1 0.4764	M12 x 1.25 7/16-20UNF	72.20	60.50	3.30 3.25
UC314-44 314	2-3/4	70	150 5.9055	78 3.0709	40 1.5748	33 1.2992	47 1.8504	12 0.4724	12.8 0.5039	M12 x 1.25 7/16-20UNF	80.20	68.00	3.96 3.95
UC315 315-48	3	75	160 6.2992	82 3.2283	42 1.6535	32 1.2598	50 1.9685	14 0.5512	13.5 0.5315	M14 x 1.5 1/2-20UNF	87.20	76.80	4.33 4.24
UC316		80	170 6.6929	86 3.3858	44 1.7323	34 1.3386	52 2.0472	14 0.5512	14.5 0.5709	M14 x 1.5 1/2-20UNF	94.50	86.50	5.57
UC317-52 317	3-1/4	85	180 7.0866	96 3.7795	46 1.8110	40 1.5748	56 2.2047	16 0.6299	15.5 0.6102	M16 x 1.5 5/8-18UNF	102.00	96.50	7.08 6.84
UC318-56 318	3-1/2	90	190 7.4803	96 3.7795	48 1.8898	40 1.5748	56 2.2047	16 0.6299	16.5 0.6496	M16 x 1.5 5/8-18UNF	110.00	108.00	8.03 7.87
UC319 319-60	3-3/4	95	200 7.8740	103 4.0551	50 1.9685	41 1.6142	62 2.4409	16 0.6299	18 0.7087	M16 x 1.5 5/8-18UNF	120.00	122.00	8.91 8.88
UC320 320-64	4	100	215 8.4646	108 4.2520	54 2.2160	42 1.6535	66 2.5984	18 0.7087	19 0.7480	M18X1.5 5/8 - 18UNF	132.00	140.00	11.2 11.00
UC321		105	225	112	56	44	68	18	19.1	M18 x 1.5	142	152	
UC322		110	240	117	60	46	71	18	20.6	M18 x 1.5	158	178	
UC324		120	260	126	64	51	75	18	20.6	M18 x 1.5	175	208	
UC326		130	280	135	38	54	81	20	22.2	M20 x 1.5	195	242	
UC328		140	300	145	73	59	86	22	23.8	M20 x 1.5	212	272	

Insert Ball Bearings

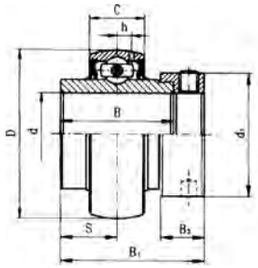


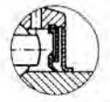


UK Tapered bore

Bearing no.	Dimensions(mm)/(in.)							Basic load rating (kN)		Weight (Kg)
	d	D	B		C		h	Dynamic Cr	Static Cr	
			Min	Max	Min	Max				
UK205	25 0.9843	52 2.0472	15 0.5905	27 1.063	15 0.5905	17 0.6693	3.9 0.1535	10.8	7.88	0.15
UK206	30 1.1811	62 2.4409	16 0.63	30 1.1811	16 0.63	19 0.748	5 0.1969	15	11.2	0.25
UK207	35 1.378	72 2.8346	17 0.6693	34 1.3386	17 0.6693	20 0.7874	5.8 0.2283	19.8	15.2	0.37
UK208	40 1.5748	80 3.1496	18 0.7087	36 1.1473	18 0.7087	22 0.8661	6.3 0.248	22.8	18.2	0.48
UK209	45 1.7717	85 3.3465	19 0.748	39 1.5354	19 0.748	22 0.8661	6.4 0.252	24.5	20.8	0.53
UK210	50 1.9685	90 3.5433	20 0.7874	43 1.6929	20 0.7874	24 0.9449	6.5 0.2559	27.0	23.2	0.59
UK211	55 2.1654	100 3.937	21 0.8268	47 1.8504	21 0.8268	25 0.9843	7 0.2756	33.5	29.2	0.77
UK212	60 2.3622	110 4.3307	22 0.8861	49 1.9291	22 0.8861	27 1.063	7.6 0.2992	36.8	32.8	1.03
UK213	65 2.5591	120 4.7244	23 0.9055	51 2.0079	23 0.9055	32 1.2598	8.5 0.3346	44.0	40.0	1.36
UK214	75 2.9528	130 5.1181	25 0.9843	58 2.2835	25 0.9843	34 1.3386	9.2 0.3622	50.8	49.5	1.67
UK215	80 3.1496	140 5.5118	26 1.0236	61 2.4016	26 1.0236	35 1.377	9.5 0.374	55.0	54.2	1.96
UK216	85 3.3465	150 5.9055	28 1.1024	64 2.5197	28 1.1024	36 1.4173	10.2 0.4016	64.0	63.8	2.42
UK217	90 3.5433	160 6.2992	30 1.1811	68 2.6772	30 1.1811	38 1.4961	11.2 0.4409	73.8	71.5	3.00

Insert Ball Bearings

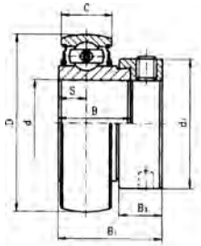




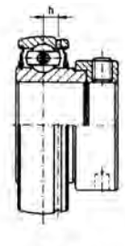
NA Eccentric collar type

Bearing no.	Dimensions(mm)/(in.)					Basic load rating (kN)		Weight (Kg)
	d	D	B	C	h	Dynamic Cr	Static Cr	
UK305	25 0.9843	62 2.4409	26 1.063	21 0.8268	6.2 0.2441	17.2	11.5	0.4
UK306	30 1.1811	72 2.8346	29 1.1811	24 0.9449	6.5 0.2559	20.8	15.2	0.46
UK307	35 1.378	80 3.1496	33 1.2992	25 0.9843	7.2 0.2835	25.8	19.2	0.75
UK308	40 1.5748	90 3.5433	34 1.378	28 1.1024	8.5 0.3346	31.2	24	0.81
UK309	45 1.7717	100 3.937	37 1.4961	30 1.1811	9 0.3543	40.8	31.8	1.19
UK310	50 1.9685	110 4.3307	41 1.5748	32 1.2598	9.9 0.3898	47.5	37.8	1.38
UK311	55 2.1654	120 4.7244	44 1.6929	34 1.3386	10.6 0.4173	55.0	44.8	1.78
UK312	60 2.3622	130 5.1181	47 1.8504	36 1.4173	11.3 0.4449	62.8	51.8	2.06
UK313	65 2.5591	140 5.5118	49 1.9291	38 1.4961	12.1 0.4764	72.2	60.5	2.71
UK315	75 2.9528	160 6.2992	55 2.1654	42 1.6535	13.5 0.5315	87.2	76.8	3.98
UK316	80 3.1496	170 6.6929	58 2.1654	44 1.7323	14.5 0.5709	94.5	86.5	4.55
UK317	85 3.3465	180 7.0866	60 2.3622	46 1.811	15.5 0.6102	102.0	96.5	5.44
UK318	90 3.5433	190 7.4803	64 2.3622	48 1.8898	16.5 0.6496	110.0	108	6.25
UK319	95 3.7402	200 7.874	67 2.5984	50 1.9685	18 0.7087	120.0	122	7.31
UK320	100 3.937	215 8.4646	73 2.6772	54 2.126	19 0.748	132.0	140	8.82

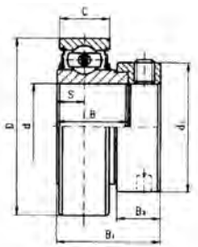
Insert Ball Bearings



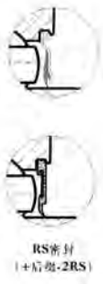
SA
Eccentric locking type



SA-G
Relubricatable type



CSA
Cylindrical O. D.type



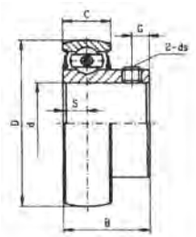
RS密封
(+后缀-2RS)

Bearing no.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	D	C	B	B_1	S	H	B_2	d_1	Basic load rating (kN) Dynamic Cr	Basic load rating (kN) Static Cr	Weight (Kg)
SA201		12											0.14
201-08	1/2												0.14
202		15	40	13	19.1	28.6	6.5	3.4	13.5	28.6			0.13
202-10	5/8		1.5748	0.5118	0.752	1.126	0.2559	0.1338	0.5315	1.126	7.35	4.78	0.13
203		17											0.13
203-11	11/16												0.13
CSA104-12	3/4	42 1.6535	12 0.4724	16.14 0.6354	26.42 1.0402	6 0.2362	--	13.2 0.5197	33 1.2992	33 1.2992	7.22	5.00	0.12
SA204-12	3/4		47	14	21.4	30.9	7.5	3.7	13.5	33.3			0.18
204		20	1.8504	0.5512	0.8425	1.2165	0.2953	0.1456	0.5315	1.3110	9.88	6.65	0.15
SA205-14	7/8												0.21
205-15	15/16		52	15	21.4	31.5	7.5	3.9	13.5	38.1			0.19
205		25	2.0472	0.5906	0.8425	1.2402	0.2953	0.1535	5315	1.500	10.80	7.88	0.19
205-16	1												0.18
SA206-18	1-1/8												0.35
206		30	62	16	23.8	35.7	9	5	15.9	44.5			0.33
206-19	1-3/16		2.4409	0.6299	0.9370	1.4055	0.3543	0.1969	0.6260	1.7520	15.00	11.20	0.31
206-20	1-1/4												0.29
SA207-20	1-1/4												0.56
207-21	1-5/16												0.53
207-22	1-3/8		72	17	25.4	38.9	9.5	5.7	17.5	55.6			0.51
207		35	2.8346	0.6693	1.0000	1.5315	0.3740	0.2244	0.6890	2.1890	19.80	15.20	0.50
207-23	1-7/16												0.48
SA208-24	1-1/2												0.68
208-25	1-9/16		80	18	30.2	43.7	11	6.2	18.3	60.3			0.67
208		40	3.1496	0.7087	1.1890	1.7205	0.4331	0.2441	0.7205	2.3740	22.80	18.20	0.65
SA209-26	1-5/8												0.76
209-27	1-11/16		85	19	30.2	43.6	11	6.4	18.3	63.5			0.73
209-28	1-3/4		3.3465	0.7480	1.1890	1.7165	0.4331	0.2519	0.7205	2.5000	24.50	20.80	0.69
209		45											0.69
SA210-30	1-7/8												0.83
210-30	1-5/16		90	20	30.2	43.6	11	6.5	18.3	69.9			0.79
210		50	3.5433	0.7874	1.1890	1.7165	0.4331	0.2559	0.7205	2.7520	27.00	23.20	0.79
SA211-32	2												0.96
211-34	2-1/8		100	23	32.4	48.4	12	7.0	20.7	76.2			0.87
211		55	3.9370	0.9449	1.2756	1.9055	0.4724	0.2756	0.8150	3.0000	33.50	29.20	0.84
211-35	2-3/16												0.81
SA212-36	2-1/4												1.30
212		60	110	24	33.4	53.1	13.5	7.6	22.3	84.2			1.20
212-38	2-3/8		4.3307	0.9449	1.3150	2.0906	0.5315	0.2993	0.8780	3.315	36.80	32.80	1.09
212-39	2-7/16												

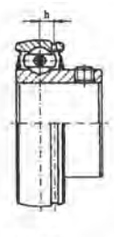
Note: Suffix "G" - Relub.; Prefix "C" - Cylindrical O.D for North America

11 | Insert Ball Bearing Units

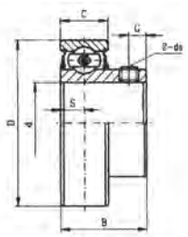
Insert Ball Bearings



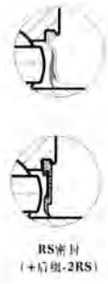
SB
Set screw type



SB-G
Relubricatable type



CSB
Cylindrical O. D.type

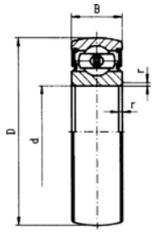


RS密封
(+后缀-2RS)

Bearing no.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	D	B	C	S	h	G	ds	Basic load rating (kN) Dynamic Cr	Basic load rating (kN) Static Cr	Weight (Kg)
SB201		12										1.10
201-08	1/2											
202		15	40 1.5748	13 0.5118	19.1 0.752	28.6 1.126	6.5 0.2559	3.4 0.1338	13.5 0.5315	7.35	4.78	0.09
202-10	5/8											0.10
203		17										
203-11	11/16											0.08
SB204-12	3/4	20	47 1.8504	25 0.9843	14 0.5512	7 0.2756	3.7 0.1456	5 0.1969	M6X1 1/4-28UNF	9.88	6.65	0.15
204												0.13
SB205-14	7/8											0.18
205-15	15/16											0.17
205		25	52 2.0473	27 1.0630	15 0.5906	7.5 0.2953	3.9 0.1535	5.5 0.2165	M6X1 1/4-28UNF	10.80	7.88	0.18
205-16												0.16
SB206-18	1-1/8											0.28
206		30	62 2.4409	30 1.1811	16 0.6299	8 0.3150	5 0.1969	6 0.2362	M6X1 1/4-28UNF	15.00	11.20	0.26
206-19	1-3/16											0.25
206-20	1-1/4											0.24
SB207-20	1-1/4											0.43
207-21	1-5/16											0.41
207-22	1-3/8											0.38
207		35	72 2.8346	32 1.2598	17 0.6693	8.5 0.3346	5.7 0.2244	6 0.2362	M6X1 1/4-28UNF	19.80	15.20	0.42
207-23	1-7/16											0.37
SB208-24	1-1/2											0.60
208-25	1-9/16											0.58
208		40	80 3.1496	34 1.3386	18 0.7087	9 0.3543	6.2 0.2441	7 0.2756	M8X1 5/16-24UNF	22.80	18.20	0.60
SB209-26	1-5/8											
209-27	1-11/16											
209-28	1-3/4											
209		45	85 3.3465	41.2 1.6220	19 0.7480	10.2 0.4016	6.4 0.2519	8.2 0.3228	M8X1 5/16-24UNF	24.50	20.80	0.80
SB210-30	1-7/8											
210-31	1-15/16											
210		50	90 3.5433	43.5 1.7126	20 0.7874	10.9 0.4291	6.5 0.2559	9.2 0.3622	M8X1 5/16-24UNF	27.00	23.20	0.80
SB211-32	2											
211-34	2-1/8											
211		55	100 3.9370	45.3 1.7835	23 0.9055	11.8 0.4646	7.0 0.2756	9.8 0.3858	M8X1 5/16-24UNF	33.50	29.20	1.10
211-35	2-3/16											
SB212-36	2-1/4											
212		60	110 4.3307	53.7 2.1142	24 0.9449	14.9 0.5866	7.6 0.2993	9.8 0.3898	M10X1.25 3/8-24UNF	36.80	32.80	1.30
212-39	2-7/16											

Note: Suffix "G" - Relub.; Prefix "C" - Cylindrical O.D for North America

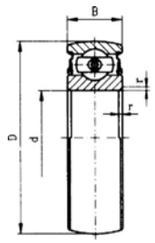
Insert Ball Bearings



RS密封
(+后缀-2RS)

CS-2RS Series

Bearing no.	Dimensions(mm)/(in.) d	D	B	r(min)	Basic load rating (kN) Dynamic Cr	Basic load rating (kN) Static Cr	Weight (Kg)
CS201	12	32	10	0.6	6800	3050	0.039
CS202	15	35	11	0.6	7650	3720	0.039
CS203	17	40	12	0.6	9580	4780	0.050
CS204	20	47	14	1	12800	6650	0.095
CS205	25	52	15	1	14000	7880	0.110
CS305		62	17	1.1	22200	11500	0.200
CS206	30	62	16	1.1	19500	11500	0.180
CS306		72	19	1.5	27000	15200	0.300
CS207	35	72	17	1.1	25500	15200	0.250
CS307		80	21	1.5	33200	19200	0.400
CS208	40	80	18	1.1	29500	18000	0.320
CS308		90	23	1.5	40800	24000	0.550
CS209	45	85	19	1.1	31500	20800	0.370
CS309		100	25	1.5	52800	31500	0.730
CS210	50	90	20	1.1	35000	23200	0.410
CS310		110	27	2	61800	38000	0.950

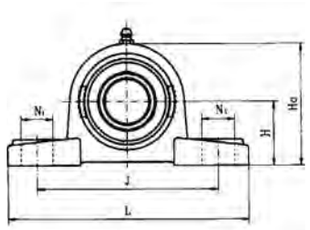


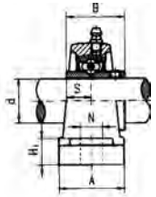
RS密封

ORAE Series

Bearing no.	DImensions(mm)/(in.) d	D	B	r(min)	Basic load rating (kN) Dynamic Cr	Basic load rating (kN) Static Cr	Weight (Kg)
ORAE30NPPB	30	62	18	1	19500	11500	0.210
ORAE40NPPB	40	80	22	1.1	29500	18200	0.380

Pillow Blocks



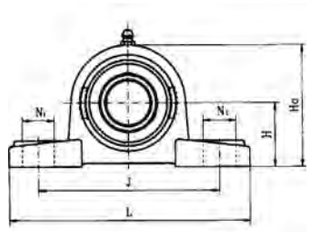


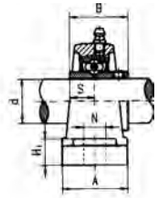
UCP Set screw type

Unit No.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	Dimensions(mm)/(in.) H	L	J	A	N	N_1	H_1	H_o	S	B	Bolt Size	Bearing No.	Housing No.	Weight (Kg)
UCP202 202-10 203 203-11	5/8 11/16	15 17	30.2	125	96	32	13	19	13	57	11.5	27.4	M10	**UC202 202-10 203 203-11**	P203	0.6
UCP204-12 204	3/4	20	33.3	127	96	37	13	19	14	63.8	12.7	31	M10	**UC204-12 204**	P204	0.65
UCP205-14 205-15 205 205-16	7/8 15/16 1	25	36.5	140	105	38	13	19	15	69.5	14.3	34.1	M12	**UC205-14 205-15 205 205-16**	P205	0.72
UCP206-18 206 206-19 206-20	1-1/8 1-3/16 1-1/4	30	42.9	160	121	44	17	21	16	82	15.9	38.1	M12	**UC206-18 206 206-19 206-20**	P206	1.15
UCP207-20 207-21 207-22 207 207-23	1-1/4 1-5/16 1-3/8 1-7/16	35	47.6	167	127	45	17	21	17	92	17.5	42.9	M12	**UC207-20 207-21 207-22 207 207-23**	P207	1.53
UCP208-24 208-25 208	1-1/2 1-9/16	50	49.2	180	137	52	17	21	18	98	19	49.2	M12	**UC208-24 208-25 208**	P208	1.88
UCP209-26 209-27 209-28 209	1-5/8 1-11/16 1-3/4	45	54	189	146	54	17	21	20	105.5	19	49.2	M12	**UC209 209-27 209-28 209**	P209	2.1
UCP210-30 210-31 210	1-7/8 1-15/16	50	57.2	204	159	59	20	25	21	112.2	19	51.6	M16	**UC210-32 210-31 210**	P210	2.5
UCP211-32 211-34 211 211-35	2 2-1/8 2-3/16	55	63.5	217	171	57	20	25	22	124.5	22.2	55.6	M16	**UC211-32 211-34 211 211-35**	P211	3.3
UCP212-36 212 212-38 212-39	2-1/4 2-3/8 2-7/16	60	69.9	238	184	66	20	24	24	137	25.4	65.1	M16	**UC212-40 212 212-38 212-39**	P212	5.5
UCP213-40 213	2-1/2	65	76.2	262	203	68	25	30	26	149	25.4	65.1	M20	**UC213-40 213**	P213	5.6
UCP214-44 214	2-3/4	70	79.4	266	210	69	25	31	27	155	30.2	74.6	M20	**UC214-44 214**	P214	6.6
UCP215 215-48	3	75	82.6	274	217	73	25	29	28	161.6	33.3	77.8	M20	**UC215 215-48**	P215	7.3
UCP216		80	88.9	292	232	76	25	30	30	174	33.3	82.6	M20	**UC216**	P216	8.3
UCP217-52 217	3-1/4	85	95.2	310	247	83	25	28	32	186	34.1	85.7	M20	**UC217-52 217**	P217	10.8
UCP218-56 218	3-1/2	90	101.6	326	262	87	27	32	33	198	39.7	96	M22	**UC218-56 218**	P218	13

Note: Grease fittings cal locate at 45˚ position of housings front right side

Pillow Blocks



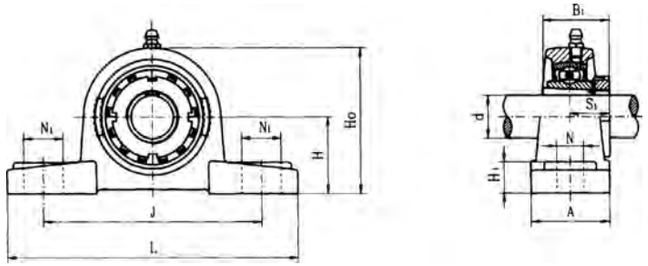


UCP Set screw type

Unit No.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	Dimensions(mm)/(in.) H	L	J	A	N	N_1	H_1	Dimensions(mm)/(in.) H_o	S	B	Bolt Size	Bearing No.	Housing No.	Weight *Kg)*
UCP305-14 305-15 305 305-16	7/8 15/16 1	25	45	173	132	42	17	20	15	85	15	38	M14	**UC305-14 305-15 305 305-16**	P305	1.4
UCP306-18 306 306-19	1-1/8 1-3/16	30	50	180	140	50	17	20	15	95	17	43	M14	**UC306-18 306 306-19**	P306	1.8
UCP307-20 307-21 307-22 307	1-1/4 1-5/16 1-3/8	35	56	210	160	56	17	25	19	106	19	48	M14	**UC307-20 307-21 307-22 307**	P307	2.8
UCP308-24 308-25 308	1-1/2 1-9/16	40	60	218	170	62	18	25	10	116	19	52	M14	**UC308-24 308-25 308**	P308	3.0
UCP309-26 309-27 309-28 309	1-5/6 1-11/16 1-3/4	45	67	244	190	66	20	26	23	129	22	57	M16	**UC309-26 309-27 309-28 309**	P309	4.1
UCP310-30 310-31 310	1-7/8 1-15/16	50	75	271	212	74	20	30	26	143	22	61	M16	**UC310-30 310-31 310**	P310	5.8
UCP311-32 311-34 311 311-35	2 2-1/8 2-3/16	55	80	300	236	80	20	32	29	154	25	66	M16	**UC311-32 311-34 311 311-35**	P311	7.4
UCP312-36 312 312-38 312-39	2-1/14 2-3/8 2-7/16	60	85	325	250	85	23	35	31	164	26	71	M20	**UC312-36 312 312-38 312-39**	P312	9.4
UCP313-40 313	2-1/2	65	90	335	260	90	25	38	33	176	30	75	M20	**UC313-40 313**	P313	10
UCP314-44 314	2-3/4	70	95	360	280	93	27	40	34	187	31	78	M22	**UC314-44 314**	P314	12
UCP315 315-48	3	75	100	380	290	100	27	40	35	198	32	82	M22	**UC315 315-48**	P315	14
UCP316		80	106	400	300	105	27	40	37	210	34	86	M22	**UC316**	P316	18
UCP317-52 317	3-14	85	112	420	320	110	33	45	40	220	40	96	M27	**UC317-52 317**	P317	20
UCP318-56 318	3-1/2	90	118	430	330	110	33	45	40	234	40	96	M27	**UC318-56 318**	P318	24
UCP319 319-60	3-3/4	95	125	470	360	120	36	50	46	248	41	103	M30	**UC319 319-60**	P319	29
UCP320 320-64	4	100	140	490	380	120	36	50	50	275	42	108	M30	**UC 320 320-64**	P320	35
UCP321		105	140	490	380	120	36	50	56	283	44	112	M18x1.5	**UC321**	P321	35
UCP322		110	150	520	400	140	40	55	61	303	46	117	M18x1.5	**UC322**	P322	45
UCP324		120	160	570	450	140	40	55	71	323	51	126	M18x1.5	**UC324**	P324	55
UCP326		130	180	600	480	140	40	55	81	363	54	135	M20x1.5	**UC326**	P326	72
UCP328		140	200	620	500	140	40	55	81	403	59	145	M20x1.5	**UC328**	P328	89

Note: Grease fittings cal locate at 45˚ position of housings front right side

Pillow Blocks



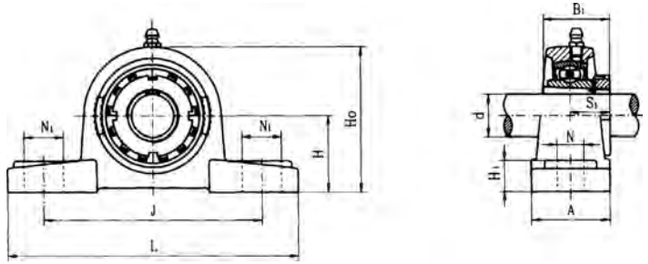
UKP + H
Tapered bore, adapter type

Unit No.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	Dimensions(mm)/(in.) H	L	J	A	N	N_1	H_1	H_o	S_1	B_1	Bolt Size	Bearing No.	Housing No.	Adapter No.	Weight *(Kg)*	Available N	Available N_1
UKP205+HE2305 205+H2305	3/4	20	36.5	140	105	38	13	19	15	69.5	18.5	35	M10	**UK205**	P205	HE 2305 H2305	.83	--	--
UKP206+HS2306 206+HA2306 206+H2306 206+HE2306	7/8 15/16 1	25	42.9	160	121	43	17	21	16	82	20.5	38	M12	**UK206**	P206	HS 2306 HA 2306 H 2306 HE 2306	1.3	17	21
UKP207+HS2307 207+H2307 207+HA2307	1-1/8 1-3/16	30	47.6	167	126	45	17	21	17	92	22.5	43	M12	**UK207**	P207	HS 2307 H 2307 HA 2307	1.5	17	21
UKP208+HE2308 208+HS2308 208+H2308	1-1/4 1-3/8	35	49.2	180	136	52	17	21	18	98	24.5	46	M12	**UK208**	P208	HE 2308 HS 2308 H 2308	2.0	17	23
UKP209+HA2309 209+HA2309 209+H2309	1-7/16 1-1/2	40	54	189	146	54	17	21	20	105.5	26	50	M12	**UK209**	P209	HA 2309 HE 2309 H 2309	2.3	17	23
UKP210+HS2310 210+HA2310 210+HE2310 210+H2310	1-5/8 1-11/16 1-3/4	45	57.2	204	159	59	20	25	21	112.2	27.5	55	M16	**UK210**	P210	HS 2310 HA 2310 HE 2310 H 2310	3.0	--	--
UKP211+HS2311 211+HA2311 211+H2311 211+HE2311	1-7/8 1-15/16 2	50	63.5	217	172	57	20	25	22	124.5	28.5	59	M16	**UK211**	P211	HS 2311 HA 2311 H 2311 HE 2311	3.5	--	--
UKP212+HS2312 212+H2312	2-18	55	69.9	238	186	66	20	24	24	137	31	62	M16	**UK212**	P212	HS 2312 HS 2312	4.7	--	--
UKP213+HA2313 213+HE2313 213+H2313 213+HS2313	2-3/16 2-1/4 2-3/8	60	76.2	262	203	68	25	30	26	149	32	65	M20	**UK213**	P213	HA 2313 HE 2313 H2313 HS 2313	5.9	25	29
UKP215+HA2315 215+HE2315 215+H2315	2-7/16 2-1/2	65	82.6	274	217	73	25	30	28	161.6	35.5	72	M20	**UK215**	P215	HA 2315 HE 2315 H2315	7.6	--	--
UKP216+HA2316 216+HE2316 216+H2316	2-11/16 2-3/4	70	88.9	292	232	76	25	35	30	174	39	78	M20	**UK216**	P216	HA 2316 HE 2316 H2316	9.2	--	--
UKP217+H2317		75	95.2	310	247	83	25	28	32	186	40	82	M20	**UK217**	P217	H 2317		--	--
UKP218+H2318		80	101.6	326	262	88	27	34	33	198	42	86	M22	**UK218**	P218	H 2318		23	37

Note: Grease fittings cal locate at 45˚ position of housings front right side

11 | Insert Ball Bearing Units

Pillow Blocks

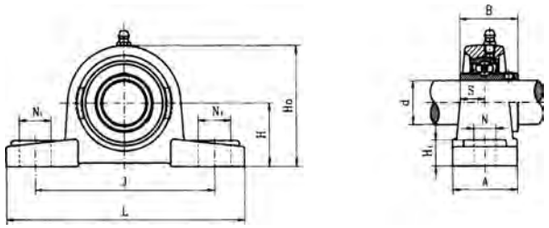


UKP + H
Tapered bore, adapter type

Unit No.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	Dimensions(mm)/(in.) H	L	J	A	N	N_1	H_1	Dimensions(mm)/(in.) H_o	S_1	B_1	Bolt Size	Bearing No.	Housing No.	Adapter No.	Weight *(Kg)*
UKP305+HE2305 305+H2305	3/4	20	45	173	132	45	17	20	15	85	21.5	35	M14	**UK305**	P305	HE2306 H2305	1.4
UKP306+HS2306 306+HA2306 306+H2306 306+HE2306	7/8 15/16 1	25	50	180	140	50	17	20	15	95	23	38	M14	**UK306**	P306	HS2306 HA2306 H2306 HE2306	1.8
UKP307+HS2307 307+H2307 307+HA2307	1-1/8 1-3/16	30	56	210	160	56	17	25	19	106	25.5	43	M14	**UK307**	P307	HS2307 H2307 HA2307	2.9
UKP308+HE2308 308+HS2308 308+H2308	1-1/4 1-3/16	35	60	218	170	62	18	25	19	116	27.5	46	M14	**UK308**	P308	HE2308 HS2308 H2308	3.1
UKP309+HA2309 309+HE2309 309+H2309	1-7/16 1-1/2	40	67	244	190	66	20	26	23	129	30	50	M15	**UK309**	P309	HA2309 HE2309 H2309	4.2
UKP310+HS 2310 310+HA2310 310+HE2310 310+H2310	1-5/8 1-11/16 1-3/4	45	75	271	212	74	20	30	26	143	32	55	M16	**UK310**	P310	HS2310 HA2310 HE2310 H2310	5.8
UKP311+HS2311 311+HA2311 311+H2311 311+HE2311	1-7/8 1-11/16 2	50	80	300	236	80	20	32	29	154	33.5	59	M16	**UK311**	P311	HS2311 HA2311 H2311 HE2311	7.4
UKP312+HS2312 312+H2312	2-1/8	55	85	325	250	85	23	35	31	164	36.5	62	M20	**UK312**	P312	HS2312 H2312	9.3
UKP313+HA2313 313+HE2313 313+H2313 313+HS2313	2-3/16 2-1/4 2-3/8	60	90	335	260	90	25	38	33	176	38.5	65	M20	**UK313**	P313	HA2313 HE2313 H2313 HS2313	10

Note: Grease fittings cal locate at 45˚ position of housings front right side

Pillow Blocks



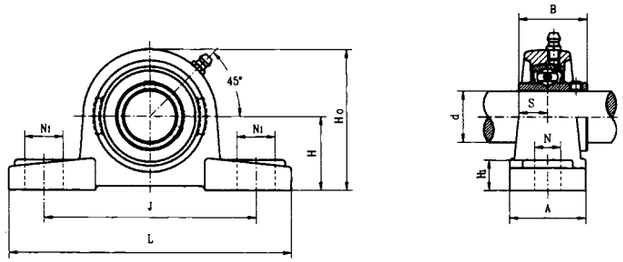
UCAK

Unit No.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	Dimensions(mm) DA	H	L	J	A	H_0	N	N_1	H_1	Bolt Size	Bearing No.	Housing No.	Weight *(Kg)*
UCAK201		12	40	27	120	89	35	54	13	16	13	M10	**UC201**	AK201	0.73
UCAK202		15	40	27	120	89	35	54	13	16	13	M10	**UC202**	AK202	0.74
UCAK203		17	40	27	120	89	35	54	13	16	13	M10	**UC203**	AK203	0.73
UCAK204		20	47	31.8	133	98	41	63	13	16	14.3	M10	**UC204**	AK204	0.77
UCAK205		25	52	33.3	140	105	45	68	13	16	16	M10	**UC205**	AK205	0.93
UCAK206		30	62	39.7	160	121	48	80	15	16	17	M12	**UC206**	AK206	1.28
UCAK207		35	72	46	167	127	48	92	15	19	19	M12	**UC207**	AK207	1.6
UCAK208		40	80	49.2	181	140	54	100	15	19	19	M12	**UC208**	AK208	2.07
UCAK209		45	85	52.4	190	146	54	106	15	19	21	M12	**UC209**	AK209	2.33
UCAK210		50	90	55.6	203	159	57	113	15	19	22	M16	**UC210**	AK210	2.7
UCAK211		55	100	61.9	232	181	60	125	20	24	25	M16	**UC211**	AK211	3.67
UCAK212		60	110	68.3	241	190	64	136	20	24	29	M16	**UC212**	AK212	4.63
UCAK213		65	120	68.3	248	194	70	141	20	29	27	M20	**UC213**	AK213	6.42
UCAK214		70	125	82.6	294	232	72	160	20	32	29	M20	**UC214**	AK214	7.18
UCAK215		75	130	84.1	304	241	74	165	22	32	32	M20	**UC215**	AK215	8.86

Note: Grease fittings cal locate at 45˚ position of housings front right side

11 | Insert Ball Bearing Units

Pillow Blocks

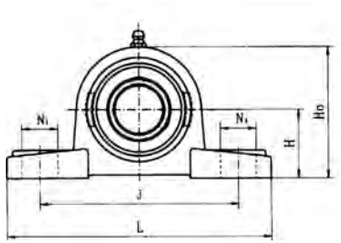


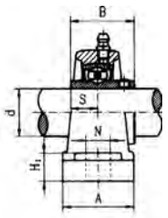
UCPK Set screw type

Unit No.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	Dimensions(mm) H	L	J	A	N	N_1	H_1	H_o	S	B	Bolt Size	Bearing No.	Housing No.	Weight *(Kg)*
UCPK202 **202-10** **203** **203-11**	5/8 11/16	15 17	27	121	89	35	11	14	13	54	11.5	27.4	M10	**UC202** **202-10** **203** **203-11**	PK 203	0.6
UCPK204-12 **204**	3/4	20	31.8	128	98	38	11	14	14	63	12.7	31	M10	**UC204-12** **204**	PK 204	0.65
UCPK205-14 **205-15** **205** **205-16**	7/8 15/16 1	25	33.3	140	105	40	11	14	15	66.5	14.3	34.1	M10	**UC205-14** **205-15** **205** **205-16**	PK 205	0.72
UCPK206-18 **206** **206-19** **206-20**	1-1/8 1-3/16 1-1/4	30	39.7	160	121	44	14	19	17	79	15.9	38.1	M12	**UC206-18** **206** **206-19** **206-20**	PK 206	1.1
UCPK207-20 **207-21** **207-22** **207** **207-23**	1-1/4 1-5/16 1-3/8 1-7/16	35	46	167	127	48	14	19	18	91	17.5	42.9	M12	**UC207-20** **207-21** **207-22** **207** **207-23**	PK 207	1.48
UCPK208-24 **208-25** **208**	1-1/12 1-9/16	40	49.2	181	140	52	14	19	19	98	19	49.2	M12	**UC208-24** **208-25** **208**	PK 208	1.88
UCPK209-26 **209-27** **209-28** **209**	1-5/8 1-11/16 1-3/4	45	52.4	189	146	54	14	19	20	105	19	51.6	M12	**UC209-26** **209-27** **209-28** **209**	PK 209	2.1
UCPK210-30 **210-31** **210**	1-7/8 1-15/16	50	55.6	203	159	57	14	19	21	111.5	19	55.6	M12	**UC210-30** **210-31** **210**	PK 210	2.6
UCPK211-32 **211-34** **211** **211-35**	2 2-1/8 2-3/16	55	61.9	232	181	60	18	24	23	123	22.2	65.1	M16	**UC211-32** **211-34** **211** **211-35**	PK 211	3.3
UCPK212-36 **212** **212-38** **212-39**	2-1/4 2-3/8 2-7/16	60	68.3	241	191	64	18	24	25	136	25.4	65.1	M16	**UC212-36** **212** **212-38** **212-39**	PK 212	4.5
UCPK212-40 **213**	2-1/2	65	68.3	248	194	70	18	24	27	141	25.4	65.1	M16	**UC212-40** **213**	PK 203	5.6

11 | Insert Ball Bearing Units

Pillow Blocks



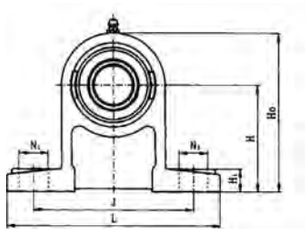


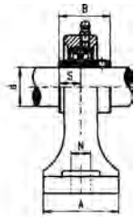
UCPX Set screw type

Unit No.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	Dimensions(mm) H	L	J	A	N	N_1	H_1	H_o	S	B	Bolt Size	Bearing No.	Housing No.	Weight *(Kg)*
UCPX05 - 14 X05 - 15 X05 X05 - 16	7/8 15/16 1	25	44.4	159	119	51	17	20	17	85	15.9	38.1	M14	**UCX05-14 X05-15 X05 X05-16**	PX 05	1.5
UCPX06-18 X06 X06 - 19 X06 - 20	1-1/8 1-3/16 1-1/4	30	47.6	175	127	54	17	20	20	93	17.5	42.9	M14	**UCX06-18 X06 X06 - 19 X06 - 20**	PX 06	2.1
UCPX07 - 22 X07 X07 - 23	1-3/8 1-7/16	35	54	203	144	57	17	20	21	105	19	49.2	M14	**UCX07 - 22 X07 X07 - 23**	PX 07	2.7
UCP X08 - 24 X08	1-1/2	40	58.7	222	156	65	20	23	23	112	19	49.2	M16	**UCX08 - 24 X06**	PX 08	3.5
UCPX09 - 26 X09 - 27 X09 - 28 X09	1-5/8 1-11/16 1-3/4	45	58.7	222	156	67	20	23	25	116	19	51.6	M16	**UCX09 - 26 X09 - 27 X09 - 28 X09**	PX 08	3.7
UCPX10 - 30 X10 - 31 X10 X10 - 32	1-7/8 1-15/16 2	50	63.5	240	171	71	20	23	24	126	22.2	55.6	M16	**UCX10 - 30 X10 - 31 X10 X10 - 32**	PX 10	4.6
UCPX11 - 34 X11 - 35 X11 X11 - 36	2-1/8 2-3/16 2	55	69.8	260	184	79	25	28	29	137	25.4	65.1	M20	**UCX11 - 34 X11 - 35 X11 X11 - 36**	PX 11	6.5
UCPX12 X12 - 38 X12 - 39	2-3/8 2-7/16	60	76.2	280	203	81	25	28	31	149	25.4	65.1	M20	**UCX12 X12 - 38 X12 - 39**	PX 12	7.7
UCPX13 - 40 X13	2-1/2	65	76.2	286	203	83	25	28	33	152	30.2	74.6	M20	**UCX13 - 40 X13**	PX 13	8.1
UCPX14 - 44 X14	2-3/4	70	88.9	320	229	85	27	30	34	170	33.3	77.8	M22	**UCX14 - 44 X14**	PX 14	10.2
UCPX15 X15 - 48	3	75	88.9	330	229	92	27	30	35	175	33.3	82.6	M22	**UCX15 X15 - 48**	PX 15	10.8
UCPX16		80	101.6	378	283	99	27	30	37	194	34.1	85.7	M22	**UCX16**	PX 16	15.3
UCPX17 - 52 X17	3-1/4	85	101.6	380	283	108	27	30	40	200	39.7	96	M22	**UCX17 - 52 X17**	PX 17	16.1
UCPX18 - 56 X18	3-1/2	90	101.6	381	283	106	27	30	40	206	42.9	104	M22	**UCX18 - 56 X18**	PX 18	19.1
UCPX20 X20 - 64	4	100	127	432	337	120	33	36	45	244	49.2	117.5	M27	**UCX20 X20 - 64**	PX 20	30.4

Note: Grease fittings cal locate at 45˚ position of housings front right side

High Center Height Pillow Blocks

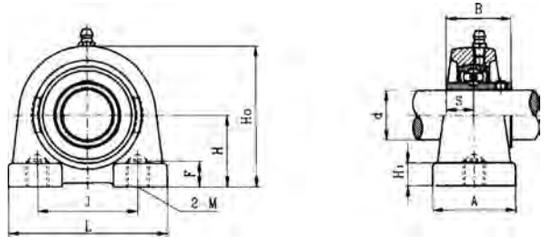




UCPH Set screw type

Unit No.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	Dimensions(mm)/(in.) H	L	J	A	N	N_1	H_1	Dimensions(mm)/(in.) H_o	S	B	Bolt Size	Bearing No.	Housing No.	Weight *(Kg)*
UCPH202 **202-10** **203** **203-11** **UCPH204-12** **204**	5/8 11/16 3/4	15 17 20	70	95	127	40	12	16	13	101	12.7	31	M10	**UC202** **202-10** **203** **203-11** **UC204-12** **204**	PH 203 PH204	0.78 0.80 0.94
UCPH205-14 **205-15** **205** **205-16**	7/8 15/16 1	25	80	105	140	50	13	19	16	114	14.3	34.1	M10	**UC205-14** **205-15** **205** **205-16**	PH 205	1.20
UCPH206-18 **206** **206-19** **206-20**	1-1/8 1-3/16 1-1/4	30	90	121	165	50	17	21	18	130	15.9	38.1	M12	**UC206-18** **206** **206-19** **206-20**	PH 206	1.60
UCPH207-20 **207-21** **207-22** **207** **207-23**	1-1/4 1-5/16 1-3/8 1-7/16	35	95	127	167	60	17	21	19	140	17.5	42.9	M12	**UC207-20** **207-21** **207-22** **207** **207-23**	PH 207	2.10
UCPH208-25 **208-24** **208**	1-1/2 1-9/16	40	100	137	184	66	17	21	20	150	19	49.2	M12	**UC208-25** **208-24** **208**	PH 208	2.70
UCPH209-26 **209-27** **209-28** **209**	1-5/8 1-11/16 1-3/4	45	105	146	190	70	17	21	20	158	19	49.2	M12	**UC209-26** **209-27** **209-28** **209**	PH 209	3.10
UCPH210-30 **210-31** **210** **210-32**	1-7/8 1-15/16 2	50	110	159	204	70	19	22	22	165	19	51.6	M16	**UC210-30** **210-31** **210** **210-32**	PH 210	3.50
UCPH211-32 **211-34** **211** **211-35**	2 2-1/8 2-3/16	55	120	171	217	75	19	22	23	181	22.2	55.6	M16	**UC211-32** **211-34** **211** **211-35**	PH 211	4.07
UCPH212-36 **212** **212-38** **212-39**	2-1/4 2-3/8 2-7/16	60	130	186	236	80	19	22	24	197	25.4	65.1	M16	**UC212-36** **212** **212-38** **212-39**	PH 212	
UCPH213-40 **213**	2-1/2	65	140	203	258	85	23	28	26	213	25.4	65.1	M20	**UC213-40** **213**	PH 213	
UCPH214-44 **214**	2-3/4	70	150	210	266	90	23	28	27	227	30.2	74.6	M20	**UC214-44** **214**	PH 214	
UCPH215-47 **215** **215-48**	2-15/16 3	75	160	217	274	95	23	28	28	240	33.3	77.8	M20	**UC215-47** **215** **215-48**	PH 215	
UCPH216		80	170	232	290	100	24	28	30	256	33.3	82.6	M20	**UC216**	PH 216	

Tapped - Based Pillow Blocks

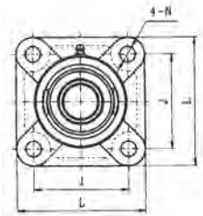


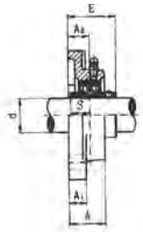
UCPA Set screw type

Unit No.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	Dimensions(mm) H	L	J	A	H_0	H_1	S	Dimensions(mm) B	F	M	Bearing No.	Housing No.	Weight (kg)
UCPA202 202-10 203 203-11 UCPA204-12 204	5/8 11/16 3/4	15 17 20	30.2	76	52	40	62	12	12.7	31	13	M10X1.5	UC202 202-10 203 203-11 UC204-12 204	PA 203 PA 204	0.6
UCPA205-14 205-15 205 205-16	7/8 15/16 1	25	36.5	84	56	38	72	12	14.3	34.1	15	M10X1.5	UC205-14 205-15 205 205-16	PA 205	0.8
UCPA206-18 206 206-19 206-20	1-1/8 1-3/16 1-1/4	30	42.9	94	66	48	84	12	15.9	38.1	18	M14X2	UC206-18 206 206-19 206-20	PA 206	1.2
UCPA207-20 207-21 207-22 207 207-23	1-1/4 1-5/16 1-3/8 1-7/16	35	47.6	110	80	48	95	12	17.5	42.9	20	M14X2	UC207-20 207-21 207-22 207 207-23	PA 207	1.7
UCPA208-25 208-24 208	1-1/2 1-9/16	40	49.2	116	84	54	100	12	19	49.2	20	M14X2	UC208-25 208-24 208	PA 208	2.0
UCPA209-26 209-27 209-28 209	1-5/8 1-11/16 1-3/4	45	54.2	120	90	60	108	12	19	49.2	25	M14X2	UC209-26 209-27 209-28 209	PA 209	2.2
UCPA210-30 210-31 210 210-32	1-7/8 1-15/16 2	50	57.2	130	94	60	116	12	19	51.6	25	M16X2	UC210-30 210-31 210 210-32	PA 210	2.8
UCPA211-32 211-34 211 211-35	2 2-1/8 2-3/16	55	63.5	140	104	66	125	12	22.2	55.6	25	M16X2	UC211-32 211-34 211 211-35	PA 211	3.0
UCPA212-36 212 212-38 212-39	2-1/4 2-3/8 2-7/16	60	69.9	150	114	68	138	12	25.4	65.1	25	M16X2	UC212-36 212 212-38 212-39	PA 212	4.24
UCPH212-40 213	2-1/2	65	76.2	160	124	70	150	12	25.4	65.1	25	M16X2	UC212-40 213	PA 213	--

Note: Grease fittings cal locate at 45˚ position of housings front right side

Square Flange Units



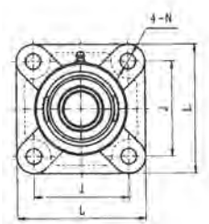


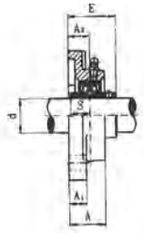
UCF Set screw type

Unit No.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	L	J	A_2	A_1	A	E	N	S	Bolt Size	Bearing No.	Housing No.	Weight (kg)
UCF202 **202-10** **203** **203-11**	5/8 11/16	15 17	76	54	15	11	25.5	30.9	12	11.5	M10	**UC202** **202-10** **203** **203-11**	F203	0.57 0.50
UCF204-13 **204**	3/4	20	86	64	15	11	25.5	33.3	12	12.7	M10	**UC204-13** **204**	F204	0.61
UCF205-14 **205-15** **205** **205-16**	7/8 15/16 1	25	95	70	16	13	27	35.8	12	14.3	M10	**UC205-14** **205-15** **205** **205-16**	F205	0.80
UCF206-18 **206** **206-19** **206-20**	1-1/8 1-3/16 1-1/4	30	108	83	18	13	31	40.2	12	15.9	M10	**UC206-18** **206** **206-19** **206-20**	F206	1.07
UCF207-20 **207-21** **207-22** **207** **207-23**	1-1/4 1-5/16 1-3/8 1-7/16	35	117	92	19	15	34	44.4	14	17.5	M12	**UC207-20** **207-21** **207-22** **207** **207-23**	F207	1.40
UCF208-24 **208-25** **208**	1-1/2 1-9/16	40	130	102	21	15	36	51.2	16	19	M12	**UC208-24** **208-25** **208**	F208	1.80
UCF209-26 **209-27** **209-28** **209**	1-5/8 1-11/16 1/3/4	45	137	105	22	16	38	52.2	16	19	M14	**UC209-26** **209-27** **209-28** **209**	F209	2.20
UCF210-30 **210-31** **210**	1-7/8 1-15/16	50	143	111	22	16	40	54.6	16	19	M16	**UC210-30** **210-31** **210**	F210	2.40
UCF211-32 **211** **211-34** **211-35**	2 2-1/18 2-3/16	55	162	130	25	18	43	58.4	19	22.2	M16	**UC211-32** **211** **211-34** **211-35**	F211	3.50
UCF212-36 **212** **212-38** **212-39**	2-1/4 2-3/8 2-7/16	60	175	143	29	18	48	68.7	19	22.2	M16	**UC212-36** **212** **212-38** **212-39**	F212	4.20
UCF213-40 **213**	2-1/2	65	187	149	30	22	50	69.7	19	25.4	M16	**UC213-40** **213**	F213	5.30
UCF214-44 **214**	2-3/4	70	193	152	31	22	54	75.4	19	25.4	M16	**UC214-44** **214**	F214	5.90
UCF215-47 **215** **215-48**	2-15/16 3	75	200	159	34	22	56	78.5	19	30.2	M16	**UC215-47** **215** **215-48**	F215	6.30
UCF216		80	208	165	34	22	57	83.3	23	33.3	M20	**UC216**	F216	7.30
UCF217-52 **217**	3-1/4	85	220	175	36	24	63	87.6	23	34.1	M20	**UC217-52** **217**	F217	8.90
UCF218-56 **218**	3-1/2	90	235	187	40	25	68	96.3	23	39.7	M20	**UC218-56** **218**	F218	11.60

Note: Grease fittings cal locate at 45˚ position of housings front right side

Square Flange Units



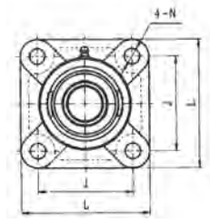


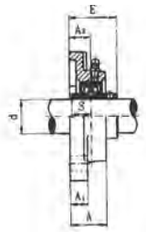
UCF Set screw type

Unit No.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	Dimensions(mm) L	J	A_2	A_1	A	E	N	S	Bolt Size	Bearing No.	Housing No	Weight *(kg)*
UCF305-14 305-15 305 305-16	7/8 15/169 1	25	108	80	16	13	29	39	16	15	M 14	**UC305-14 305-15 305 305-16**	F305	1.2
UCF306-18 306 306-19	1-1/8 1-3/16	30	125	95	18	15	32	44	16	17	M 14	**UC306-18 306 306-19**	F306	1.8
UCF307-20 307-21 307-22 307	1-1/4 1-5/16 1-3/8	35	135	100	20	16	36	49	19	19	M 16	**UC307-20 307-21 307-22 307**	F307	2.2
UCF308-24 308-25 308	1-1/2 1-9/16	40	150	112	23	17	40	56	19	19	M 16	**UC308-24 308-25 308**	F308	2.9
UCF309-26 309-27 309-28 309	1-5/8 1-11/16 1-3/4	45	160	125	25	18	44	60	19	22	M 16	**UC309-26 309-27 309-28 309**	F309	3.5
UCF310-30 310-31 310	1-7/8 1-15/16	50	175	132	28	20	48	67	23	22	M 20	**UC310-30 310-31 310**	F310	4.8
UCF311-32 311-34 311 311-35	2 2-1/8 2-3/16	55	185	140	30	20	52	71	23	25	M 20	**UC311-32 311-34 311 311-35**	F311	5.6
UCF312-36 312 312-38 312-39	2-1/4 2-3/8 2-7/16	60	193	150	33	22	56	78	23	26	M 20	**UC312-36 312 312-38 312-39**	F312	6.7
UCF313-40 313	2-1/2	65	208	166	33	22	58	78	23	30	M 20	**UC313-40 313**	F313	7.8
UCF314-44 314	2-3/4	70	226	178	36	25	61	81	25	33	M 22	**UC314-44 314**	F314	10.1
UCF315 315-48	3	75	236	184	39	25	66	89	25	32	M 22	**UC315 315-48**	F315	11.1
UCF316		80	250	1969	38	27	68	90	31	34	M 27	**UC316**	F316	12.8
UCF317-52 317	3-1/4	85	260	204	44	27	74	100	31	40	M 27	**UC317-52 317**	F317	15.4
UCF318-56 318	3-1/2	90	280	216	44	30	75	100	35	40	M 30	**UC318-56 318**	F318	19.0
UCF319 319-60	3-3/4	95	290	228	59	30	94	121	35	41	M 30	**UC319 319-60**	F319	20.6
UCF320 320-64	4	100	310	242	59	32	94	125	38	42	M 33	**UC320 320-64**	F320	25.7
UCF321		105	310	242	59	32	94	127	38	44	M 33	**UC321**	F321	
UCF322		110	340	266	60	35	96	131	41	46	M 36	**UC322**	F322	
UCF324		120	370	290	65	40	110	140	41	51	M 36	**UC324**	F323	
UCF326		130	410	320	65	45	115	146	41	54	M 36	**UC326**	F324	
UCF328		140	450	350	75	55	125	161	41	59	M 36	**UC328**	F3025	

11 | Insert Ball Bearing Units

Square Flange Units

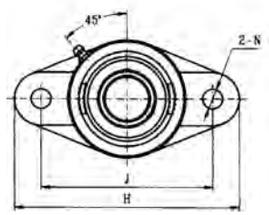


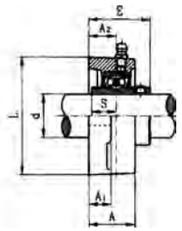


UKF + H Set screw type

Unit No.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	Dimensions(mm) L	J	A_2	A_1	A	E	N	S_1	Bolt Size	Bearing No.	Housing No	Adapter No.	Weight *(kg)*
UKF 305+HE2305 305+H2305	3/4	20	108	80	16	13	29	37.5	16	21.5	M14	UK305	F305	**HE2305 H2305**	1.2
UKF 306+HS2306 306+HA2306 306+H2306 306+HE2306	7/8 15/16 1	25	125	95	18	15	32	41	16	23	M14	UK306	F306	**HS2306 HA2306 H2306 HE2306**	1.8
UKF 307+HE2307 307+H2307 307+HA2307	1-1/8 1-3/16	30	135	100	20	16	36	45.5	19	25.5	M16	UK307	F307	**HE2307 H2307 HA2307**	2.2
UKF 308+HE2308 308+HS2308 308+H2308	1-1/4 1-3/4	35	150	112	23	17	40	50.5	19	27.5	M16	UK308	F308	**HE2308 HS2308 H2308**	2.9
UKF 309+HA2309 309+HE2309 309+H2309	1-7/16 1-1/2	40	160	125	25	18	44	55	19	30	M16	UK309	F309	**HA2309 HE2309 H2309**	3.5
UKF 310+HS2310 310+HA2310 310+HE2310 310+H2310	1-5/8 1-11/16 1-3/4	45	175	132	28	20	48	60	23	32	M20	UK310	F310	**HS2310 HA2310 HE2310 H2310**	4.8
UKF 311+HS2311 311+HA2311 311+H2311 311+HE2311	1-7/8 1-15/16 2	50	185	140	30	20	52	63.5	23	33.5	M20	UK311	F311	**HS2311 HA2311 H2311 HE2311**	5.6
UKF 312+HS2312 312+H2312	2/1-8	55	193	150	33	22	56	69.5	23	36.5	M20	UK312	F312	**HS2312 H2312**	6.7
UKF 313+HA2313 313+HE2313 313+H2313 313+HS2313	2-3/16 2-1/4 2-3/8	60	208	166	32	22	58	71.5	23	38.5	M20	UK313	F313	**HA2313 HE2313 H2313 HS2313**	7.8

Oval Flange Units

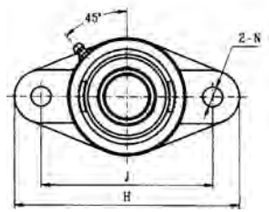


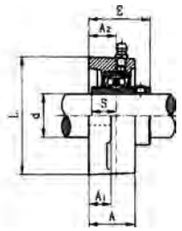


UCFL Set screw type

Unit No.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	Dimensions(mm) H	J	L	A_2	A_1	A	E	N	S	Bolt Size	Bearing No.	Housing No	Weight *(kg)*
UCFL202 **202-10** **UCFL203** **203-11**	5/8 11/16	15 17	99	76.5	57	15	11	25.5	30.9	11.5	11.5	M10	**UC202** **202-10** **UC203** **203-11**	FL203	0.45 0.43
UCFL204-12 **204**	3/4	20	113	90	60	15	11	25.5	33.3	12	12.7	M10	**UC204-12** **204**	FL204	0.48
UCFL205-14 **205-15** **205** **205-16**	7/8 15/16 1	25	130	99	68	16	13	27	35.8	16	14.3	M10	**UC205-14** **205-15** **205** **205-16**	FL205	0.6
UCFL206-18 **206** **206-19** **206-206**	1-1/8 1-3/16 1-1/4	30	148	117	80	18	13	31	40.2	16	15.9	M10	**UC206-18** **206** **206-19** **206-206**	FL206	0.9
UCFL207-20 **207-21** **207** **207-23**	1-1/4 1-5/16 1-7/16	35	161	130	90	19	14	34	44.4	16	17.5	M12	**UC207-20** **207-21** **207** **207-23**	FL207	1.2
UCFL208-24 **208-25** **208**	1-1/21 1-9/16	40	175	144	100	21	14	36	51.2	16	19	M12	**UC208-24** **208-25** **208**	FL208	1.5
UCFL209-26 **209-27** **209-28** **209**	1-5/8 1-11/16 1-3/4	45	188	148	108	22	16	38	52.2	19	19	M16	**UC209-26** **209-27** **209-28** **209**	FL209	1.9
UCFL210-30 **210-31** **210** **210-32**	1-7/8 1-15/16 2	50	197	157	115	22	16	40	54.6	19	19	M16	**UC210-30** **210-31** **210** **210-32**	FL210	2.2
UCFL211-32 **211-34** **211** **211-35**	2 2-1/8 2-3/16	55	224	184	130	25	18	43	58.4	19	22.2	M16	**UC211-32** **211-34** **211** **211-35**	FL211	3.1
UCFL212-36 **212** **212-38** **212-39**	2-1/4 2-3/8 3-7/16	60	250	202	140	29	18	48	68.7	23	25.4	M16	**UC212-36** **212** **212-38** **212-39**	FL212	4.0
UCFL213-40 **213**	2-1/2	65	258	210	155	30	20	50	69.7	23	25.4	M20	**UC213-40** **213**	FL213	5.0
UCFL214-44 **214**	2-3/4	70	265	216	160	31	20	54	75.4	23	30.2	M20	**UC214-44** **214**	FL214	5.6
UCFL215-47 **215** **215-48**	2-15/16 3	75	275	225	164	34	22	55	78.5	23	33.3	M20	**UC215-47** **215** **215-48**	FL215	6.2
UCFL216		80	290	233	180	34	22	58	83.3	25	33.3	M22	**UC216**	FL216	7.8
UCFL217-52 **217**	3-1/4	85	305	248	190	36	22	63	87.6	25	34.1	M22	**UC217-52** **217**	FL217	9.8
UCFL218-56 **218**	3-1/2	90	320	265	205	40	23	68	96.3	25	39.7	M22	**UC218-56** **218**	FL218	12.4

Oval Flange Units

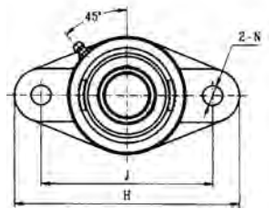


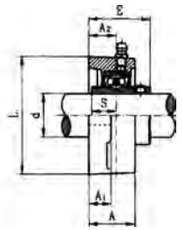


UCFL Set screw type

Unit No.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	Dimensions(mm)/(in.) H	J	L	A_2	A_1	A	E	N	S	Bolt Size	Bearing No.	Housing No	Weight *(kg)*
UCFL305-14 305-15 305 305-16	7/8 15/16 1	25	150	113	80	16	13	29	39	19	15	M16	**UC305-14 305-15 305 305-16**	FL305	1.1
UCFL306-18 306 306-19	1-1/8 1-3/16	30	180	134	90	18	15	32	44	23	17	M20	**UC306-18 306 306-19**	FL306	1.5
UCFL307-20 307-21 307-22 307	1-1/4 1-5/16 1-3/8	35	185	141	100	20	16	36	49	23	19	M20	**UC307-20 307-21 307-22 307**	FL307	1.8
UCFL308-24 308-25 308	1-1/2 1-9/16	40	200	158	112	23	17	40	56	23	19	M20	**UC308-24 308-25 308**	FL308	2.5
UCFL309-26 309-27 309-28 309	1-5/8 1-11/16 1-3/4	45	230	177	125	25	18	44	60	25	22	M22	**UC309-26 309-27 309-28 309**	FL309	3.4
UCFL310-30 310-31 310	1-7/8 1-15/16	50	240	187	140	28	19	48	67	25	22	M22	**UC310-30 310-31 310**	FL310	4.4
UCFL311-32 311-34 311 311-35	2 2-1/8 2-3/16	55	250	198	150	30	20	52	71	25	25	M22	**UC311-32 311-34 311 311-35**	FL311	5.1
UCFL312-36 312 312-38 312-39	2-1/4 2-3/8 2-7/16	60	270	212	160	33	22	56	78	31	26	M27	**UC312-36 312 312-38 312-39**	FL312	6.1
UCFL313-40 313	2-1/2	65	295	240	175	33	25	58	78	31	30	M27	**UC313-40 313**	FL313	7.8
UCFL314-44 314	2-3/4	70	315	250	185	36	28	61	83	35	31	M30	**UC 314-44 314**	FL314	9.8
UCFL315 315-48	3	75	320	260	195	39	30	66	89	35	32	M30	**UC315 315-48**	FL315	11.3
UCFL316		80	355	285	210	38	32	68	90	38	34	M33	**UC316**	FL316	14.3
UCFL317-52 317	3-1/4	85	370	300	220	44	32	74	100	38	40	M33	**UC317-52 317**	FL317	16.0
UCFL318-56 318	3-1/2	90	385	315	235	44	36	76	100	38	40	M33	**UC318-56 318**	FL318	19.1
UCFL319 319-60	3-3/4	95	405	330	250	59	40	94	121	41	41	M36	**UC319 319-60**	FL319	24.6
UCFL320 320-64	4	100	440	360	270	59	40	94	125	44	42	M39	**UC320 320-64**	FL320	30.8
UCFL321		105	444	360	270	59	40	94	127	44	44	M39	**UC321**	FL321	27
UCFL322		110	474	390	300	60	42	96	131	44	46	M39	**UC322**	FL322	33
UCFL324		120	524	430	330	65	48	110	140	47	51	M42	**UC324**	FL324	48
UCFL326		130	554	460	360	65	50	115	146	47	54	M42	**UC326**	FL326	58
UCFL328		140	604	500	400	75	60	125	161	47	59	M45	**UC328**	FL328	81

Oval Flange Units

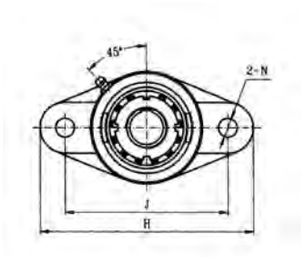


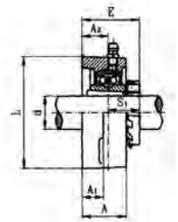


UCFT
Eccentric locking collar type

UnitNo.	ShaftDia. d (in.)	ShaftDia. d (mm)	Dimensions(mm) Da	H	J	L	A_1	A_2	A	E	N	S	BoltSize	BearingNo.	Housing No.	Weight *(kg)*
UCFT201		12	40	112	76.2	60	11	17.1	24.6	33	10.5		M10	**UC201**	FT201	0.39
UCFT202		15	40	112	76.2	60	11	17.1	24.6	33	10.5	11.5	M10	**UC202**	FT202	0.40
UCFT203		17	40	112	76.2	60	11	17.1	24.6	33	10.5	11.5	M10	**UC203**	FT203	0.39
UCFT204		20	47	112	89.7	60	11	14.3	24.6	32.6	10.5	12.7	M10	**UC204**	FT204	0.49
UCFT205		25	52	124	98.8	70	13	15.9	27	35.7	12.5	14.3	M10	**UC205**	FT205	0.68
UCFT206		30	62	141	116.7	83	13	17.9	30	40.1	12.5	15.9	M12	**UC206**	FT206	0.87
UCFT207		35	72	156	130.2	95	14	19.1	34	44.5	14	17.5	M12	**UC207**	FT207	1.32
UCFT208		40	80	171	143.7	105	14	21	38	51.2	14	19	M12	**UC208**	FT208	1.54
UCFT209		45	85	179	148.4	111	14	21.8	40	52	16	19	M12	**UC209**	FT209	1.73
UCFT210		50	90	189	157.2	116	14	22.2	40	54.6	16	19	M16	**UC210**	FT210	2.30
UCFT211		55	100	216	184.2	133	21	25.4	44	58.8	16	22.2	M16	**UC211**	FT211	2.77

Oval Flange Units



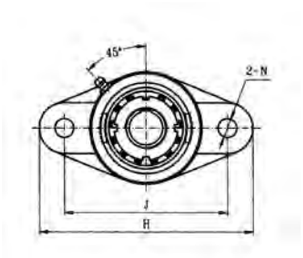


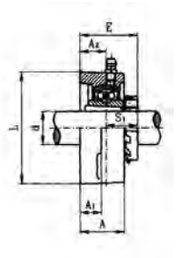
UKFL + H
Tapered bore, Adapter Bore

Unit No.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	Dimensions(mm) H	J	L	A_2	A_1	A	E	N	S_1	Bolt Size	Bearing No.	Housing No	Adapter No.	Weight *(kg)*
UKFL205+HE2305 205+H2305	3/4	20	130	99	68	16	13	27	34.5	16	18.5	M10	UK205	FL205	**HE2305 H2305**	0.6
UKFL206+HS2306 206+HA2306 206+H2306 206+HE2306	7/8 15/16 1	25	148	117	80	18	13	31	38.5	16	20.5	M10	UK206	FL206	**HS2306 HA2306 H2306 HE2306**	0.96
UKFL207+HS2307 207+H2307 207+HE2307	1-1/8 1-3/16	30	161	130	90	19	14	34	41.5	16	22.5	M12	UK207	FL207	**HS2307 H2307 HE2307**	1.3
UKFL208+HE2308 208+HS2308 208+H2308	1-1/4 1-3/8	35	175	144	100	21	14	36	45.5	16	24.5	M12	UK208	FL208	**HE2308 HS2308 H2308**	1.6
UKFL209+HA2309 209+HE2309 209+H2309	1-7/16 1-1/2	40	188	148	108	22	16	38	48	19	26	M16	UK209	FL209	**HA2309 HE2309 H2309**	2.0
UKFL210+HS2310 210+HA2310 210+HE2310 210+H2310	1-5/8 1-11/16 1-3/4	45	197	157	115	22	16	40	49.5	19	27.5	M16	UK210	FL210	**HS2310 HA2310 HE2310 H2310**	2.3
UKFL211+HS2311 211+HA2311 211+H2311 211+HE2311	1-7/8 1-15/16 2	50	224	184	130	25	18	43	53.5	19	28.5	M16	UK211	FL211	**HS2311 HA2311 H2311 HE2311**	3.3
UKFL212+HS2312 212+H2312	2-1/18	55	250	202	140	29	18	48	60	23	31	M16	UK212	FL212	**HS2312 H2312**	4.0
UKFL213+HA2313 213+HE2313 213+H2313 213+HS2313	2-3/16 2-1/4 2-3/8	60	258	210	155	30	20	50	62	23	32	M20	UK213	FL213	**HA2313 HE2313 H2313 +HS2313**	5.1
UKFL215+HA2309 215+HE2309 215+H2309	2-7/16 2-1/2	65	275	225	164	34	22	55	69.5	23	35.5	M20	UK215	FL215	**HA2309 HE2309 H2309**	6.4
UKFL216+HA2309 216+HE2309 216+H2309	2-11/16 2-3/4	70	290	233	180	34	22	58	73	25	39	M22	UK216	FL216	**HA2309 HE2309 H2309**	8.0

11 | Insert Ball Bearing Units

Oval Flange Units

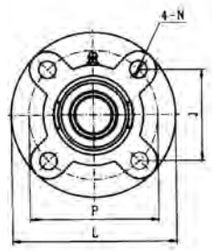


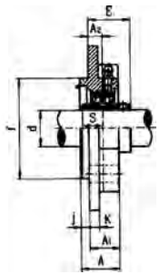


UKFL + H
Tapered bore, Adapter Bore

Unit No.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	Dimensions(mm) H	J	L	A_2	A_1	A	E	N	S_1	Bolt Size	Bearing No.	Housing No	Adapter No.	Weight (kg)
UKFL305+HE2305 305+H2305	3/4	20	150	113	80	16	13	29	37.5	19	21.5	M16	UK305	FL305	**HE2305 H2305**	1.1
UKFL306+HE2306 306+HA2306 306+H2306 306+HE2306	7/8 15/16 1	25	180	134	90	18	15	32	41	23	23	M20	UK306	FL306	**HE2306 HA2306 H2306 HE2306**	1.5
UKFL307+HS2307 307+H2307 307+HE2307	1-1/8 1-3/16	30	185	141	100	20	16	36	45.5	23	25.5	M20	UK307	FL307	**HS2307 H2307 HE2307**	1.8
UKFL308+HE2308 308+HS2308 308+H2308	1-1/4 1-3/8	35	200	158	112	23	17	40	50.5	23	27.5	M20	UK308	FL308	**HE2308 HS2308 H2308**	2.5
UKFL309+HA2309 309+HE2309 309+H2309	1-7/16 1-1/2	40	230	177	125	25	18	44	55	25	30	M22	UK309	FL309	**HA2309 HE2309 H2309**	3.5
UKFL310+HS2310 310+HA2310 310+HE2310 310+H2310	1-5/8 1-11/16 1-3/4	45	240	187	140	28	19	48	60	25	32	M22	UK310	FL310	**HS2310 HA2310 HE2310 H2310**	4.4
UKFL311+HS2311 311+HA2311 311+H2311 311+HE2311	1-7/8 1-11/16 2	50	250	198	150	30	20	52	63.5	25	33.5	M22	UK311	FL311	**HS2311 HA2311 H2311 HE2311**	5.1
UKFL312+HS2305 312+HE2305	2-1/8	55	270	212	160	33	22	56	69.5	31	36.5	M27	UK312	FL312	**HS2305 HE2305**	6.0
UKFL313+HS2311 313+HA2311 313+H2311 313+HE2311	2-3/16 2-1/4 2-3/8	60	295	240	175	33	25	58	71.5	31	38.5	M27	UK313	FL313	**HS2311 HA2311 H2311 HE2311**	7.6

Round Flanged Cartridge Units

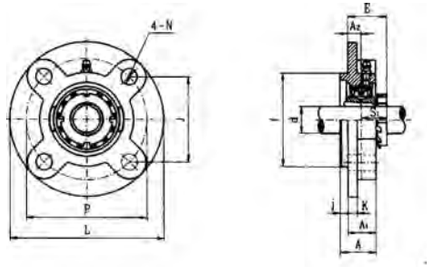




UCFC Set screw type

Unit No.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	Dimensions(mm) L	J	A_2	A_1	A	j	K	N	J	f	S	E	Bolt Size	Bearing No.	Housing No.	Weight *(kg)*
UCFC 202 **202-10** **203** **203-11** **UCFC 204-12** **204**	3/4	20	100	78	10	20.5	25.5	5	6	12	55.1	62	12.7	28.3	M10	**UC202** **202-10** **203** **203-11** **UC204-12** **204**	FC203 FC204	0.56 0.54 0.76
UCFC 205-14 **205-15** **205** **205-16**	7/8 15/16 1	25	115	90	10	21	27	6	7	12	63.6	70	14.3	29.8	M10	**UC205-14** **205-15** **205** **205-16**	FC205	0.96
UCFC 206-18 **206** **206-19** **206-20**	1-1/8 1-3/16 1-1/4	30	125	100	10	23	31	8	8	12	70.7	80	15.9	32.2	M10	**UC206-18** **206** **206-19** **206-20**	FC206	1.37
UCFC 207-20 **207-21** **207-22** **207** **207-23**	1-1/4 1-5/16 1-3/8 1-7/16	35	135	110	11	26	34	8	9	14	77.8	90	17.5	36.4	M12	**UC207-20** **207-21** **207-22** **207** **207-23**	FC207	1.7
UCFC 208-24 **208-25** **208**	1-1/2 1-9/16	40	145	120	11	26	36	10	9	14	84.8	100	19	41.2	M12	**UC208-24** **208-25** **208**	FC208	2.0
UCFC 209-26 **209-27** **209-28** **209**	1-5/8 1-11/16 1-3/4	45	160	132	10	26	38	12	10	16	93.3	105	19	40.2	M14	**UC209-26** **209-27** **209-28** **209**	FC209	2.7
UCFC 210-30 **210-31** **210**	1-7/8 1-15/16	50	165	138	10	28	40	12	14	16	97.6	110	19	42.6	M14	**UC210-30** **210-31** **210**	FC210	2.9
UCFC 211-32 **211-34** **211** **211-35**	2 2-1/8 2-3/16	55	185	150	13	30	42	12	13	19	106.1	125	22.2	46.4	M16	**UC211-32** **211-34** **211** **211-35**	FC211	4.2
UCFC 212-36 **212** **212-38** **212-39**	2-1/4 2-3/8 2-7/16	60	195	160	17	36	48	12	15	19	113.1	135	25.4	56.7	M16	**UC212-36** **212** **212-38** **212-39**	FC212	4.94
UCFC 213-40 **213**	2-1/2	65	205	170	16	35	49	14	15	19	120.2	145	25.4	55.7	M16	**UC213-40** **213**	FC213	5.7
UCFC 214-44 **214**	2-3/4	70	215	177	17	38	52	14	16	19	125.1	150	30.2	61.4	M16	**UC214-44** **214**	FC214	6.8
UCFC 215 **215-48**	3	75	220	184	18	39	55	16	17	19	130.1	160	33.3	62.5	M16	**UC215** **215-48**	FC215	7.2
UCFC 216		80	240	200	18	42	58	16	18	23	141.4	170	33.3	67.3	M20	**UC216**	FC216	8.7
UCFC 217-52 **217**	3-1/4	85	250	208	18	45	63	18	20	23	147.1	180	34.1	69.6	M20	**UC217-52** **217**	FC217	10.3
UCFC 218-56 **218**	3-1/2	90	265	220	22	50	68	18	20	23	155.5	190	39.7	78.3	M20	**UC218-56** **218**	FC218	13.5

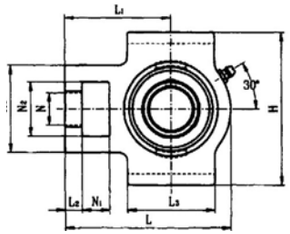
Round Flanged Cartridge Units

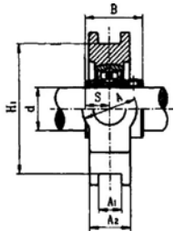


UKFC + H
Tapered bored, adapter type

Unit No.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	Dimensions(mm) L	J	A_2	A_1	A	j	Dimensions(mm) K	N	J	f	S	E	Bolt Size	Bearing No.	Housing No	Adapter No.	Weight *(kg)*
UKFC205+HE2305 205+H2305	3/4	20	115	90	10	21	27	6	7	12	63.6	70	18.5	28.5	M10	**UK205**	FC205	HE2305 H2305	.98
UKFC206+HS2306 206+HA2306 206+H2306 206+HE2306	7/8 15/16 1	25	125	100	10	23	31	8	8	12	70.7	80	20.5	30.5	M10	**UK206**	FC206	HS2306 HA2306 H2306 HE2306	1.2
UKFC207+HS2307 207+H2307 207+HA2307	1-1/8 1-3/16	30	135	110	11	26	34	8	9	14	77.8	90	22.5	33.5	M12	**UK207**	FC207	HS2307 H2307 HA2307	1.7
UKFC208+HE2308 208+HS2308 208+H2308	1-1/4 1-3/8	35	145	120	11	26	36	10	9	14	84.8	100	24.5	35.5	M12	**UK208**	FC208	HE2308 HS2308 H2308	2.0
UKFC209+HA2309 209+HE2309 209+H2309	1-7/16 1-1/2	40	160	132	10	26	38	12	10	16	93.3	105	26	36	M14	**UK209**	FC209	HA2309 HE2309 H2309	2.7
UKFC210+H2310 210+HA2310 210+HE2310 210+H2310	1-5/8 1-11/16 1-3/4	45	165	138	10	28	40	12	14	16	97.6	110	27.5	37.5	M14	**UK210**	FC210	HS2310 HA2310 HE2310 H2310	3.0
UKFC211+HS2311 211+HAS2311 211+H2311 211+HE2311	1-7/8 1-15/16 2	50	185	150	13	30	42	12	13	19	106.1	125	28.5	41.5	M16	**UK211**	FC211	HS2311 HA2311 H2311 HE2311	4.2
UKFC212+HS2312 212+H2312	2-1/8	55	195	160	17	36	48	12	15	19	113.1	135	31	48	M16	**UK212**	FC212	HS2312 H2312	4.9
UKFC213+H2313 213+HE2313 213+H2313 213+HS2313	2-3/16 2-1/4 2-3/8	60	205	170	16	35	49	14	15	19	120.2	145	32	48	M16	**UK213**	FC213	HA2313 HE2313 H2313 HS2313	5.6
UKFC215+HA2315 215+HE2315 215+H2315	2-7/16 2-1/2	65	220	184	18	39	55	16	17	19	130.1	160	35.5	53.5	M16	**UK215**	FC215	HA2315 HE2315 H2315	7.5
UKFC216+HA2316 216+HE2316 216+H2316	2-11/16 2-3/4	70	240	200	18	42	58	16	18	23	141.4	170	39	57	M20	**UK216**	FC216	HA2316 HE2316 HA2316	8.9
UKFC217+HA2317 217+H2317 217+HE2317	2-15/16 3	75	250	208	18	45	63	18	20	23	147.1	180	40	58	M20	**UK217**	FC216	HA2317 H2317 HE2317	10.4
UKFC218+H2318		80	265	220	22	50	68	18	20	23	155.5	190	42	64	M20	**UK218**	FC218	H2318	13.3

Take - Up Units

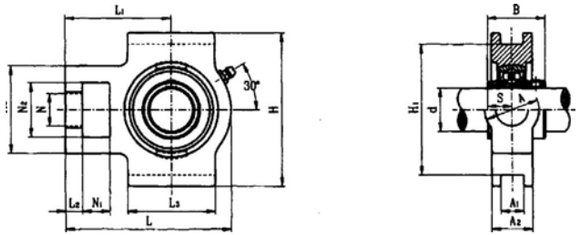




UCT Set screw type

Unit No.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	Dimensions(mm)/(in.) N_1	L_2	H_2	N_2	N	L_3	A_1	Dimensions(mm)/(in.) H_1	H	L	A	A_2	L_1	B	S	Bearing No.	Housing No.	Weight *(kg)*
UCT204-12 204	3/4	20	16	10	51	32	19	51	12	76	89	94	32	21	61	31	12.7	UC204-12 204	T204	0.79
UCT205-14 205-15 205 205-16	7/8 15/16 1	25	16	10	51	32	19	51	12	76	89	97	32	24	62	34.1	14.3	UC205-14 205-15 205 205-16	T205	0.88
UCT206-18 206 206-19 206-20	1-1/8 1-3/16 1-1/4	30	16	10	56	37	22	57	12	89	102	113	37	28	70	38.1	15.9	UC206-18 206 206-19 206-20	T206	1.3
UCT207-20 207-21 207-22 207 207-23	1-1/4 1-5/16 1-3/8 1-7/16	35	16	13	64	37	22	64	12	89	102	129	37	30	78	42.9	17.5	UC207-20 207-21 207-22 207 207-23	T207	1.7
UCT208-24 208-25 208	1-1/2 1-9/16	40	19	16	83	49	29	83	16	102	114	144	49	33	88	49.2	19	UC208-24 208-25 208	T208	2.5
UCT209-26 209-27 209-28 209	1-5/8 1-11/16 1-3/4	45	19	16	83	49	29	83	16	102	117	144	49	35	87	49.2	19.0	UC209-26 209-27 209-28 209	T209	2.5
UCT210-30 210-31 210	1-7/8 1-15/16		19	16	83	49	29	83	16	102	117	144	49	37	90	51.6	19	UC210-30 210-31 210	T210	2.6
UCT211-32 211-34 211 211-35	2 2-1/8 2-3/16	50	25	19	102	64	35	95	22	130	146	171	64	38	106	55.6	22.2	UC211-32 211-34 211 211-35	T211	4.0
UCT212-36 212 212-38 212-39	2-1/4 2-3/8 2-7/16	60	32	19	102	64	35	102	22	130	146	194	64	42	119	65.1	25.4	UC212-36 212 212-38 212-39	T212	1.9
UCT213-40 213	2-1/2	65	32	21	111	70	41	121	26	151	167	224	70	44	137	65.1	25.4	UC213-40 213	T213	7.0
UCT214-44 214	2-3/4	70	32	21	111	70	41	121	26	151	167	224	70	46	137	74.6	30.2	UC214-44 214	T214	7.1
UCT215 215-48	3	75	32	21	111	70	41	121	26	151	167	224	70	48	140	77.8	33.3	UC215 215-48	T215	7.5
UCT216		80	32	21	111	70	41	121	26	165	184	235	70	51	140	82.6	33.3	UC216	T216	8.2
UCT217-52 217	3-1/4	85	38	29	124	73	48	157	30	173	198	260	73	54	162	85.7	34.1	UC217-52 217	T217	11.0

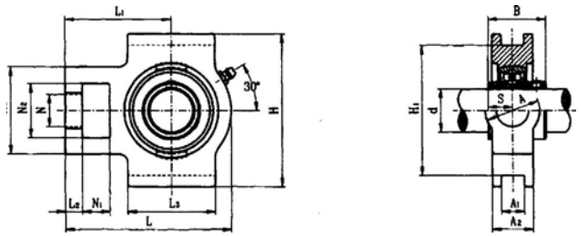
Take - Up Units



UCK Set screw type

Unit No.	Shaft Dia. D (mm)	Dimensions(mm) N_1	L_2	H_2	N_2	N	L_3	A_1	Dimensions(mm) H_1	H	L	A	A_2	L_1	B	S	Bearing No.	Housing No.	Weight *(kg)*
UCK204	20	16	10	51	32	19	51	13.5	76	89	94	32	24	61	31	12.7	**UC204**	K204	0.79
UCK205	25	16	10	51	32	19	51	13.5	76	89	97	32	26	62	34.1	14.3	**UC205**	K205	0.88
UCK206	30	16	10	56	37	22	57	13.5	89	102	113	37	30	70	38.1	15.9	**UC206**	K206	1.3
UCK207	35	16	13	64	37	22	64	13.5	89	102	129	37	32	78	42.9	17.5	**UC207**	K207	1.7
UCK208	40	19	16	83	49	29	83	17.5	101	114	144	49	33	88	49.2	19	**UC208**	K208	2.5
UCK209	45	19	16	83	49	29	83	17.5	101	117	144	49	35	88	49.2	19	**UC209**	K209	2.5
UCK210	50	19	16	83	49	29	86	17.5	101	117	149	49	37	90	51.6	19	**UC210**	K210	2.6
UCK211	55	25	19	102	64	35	95	27	130	146	171	64	42	106	55.6	22.2	**UC211**	K211	4
UCK212	60	31	17	102	64	35	102	27	130	146	193	64	50	119	65.1	25.4	**UC212**	K212	4.9

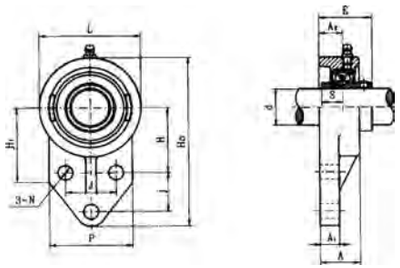
Take - Up Units



UCST Set screw type

Unit No.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	Dimensions(mm) N_1	L_2	H_2	N_2	N	L_3	A_1	Dimensions(mm) H_1	H	L	A	A_2	L_1	B	S	Bearing No.	Housing No.	Weight *(kg)*
UCST204-12 204	3/4	20	16	10	51	32	19	51	13.5	76	89	94	32	21	61	31	12.7	**UC204-12 204**	ST 204	0.79
UCST205-14 205-15 205 205-16	7/8 15/16 1	25	16	10	51	32	19	51	13.5	76	89	96	32	24	62	34.1	14.3	**UC205-14 205-15 205 205-16**	ST 205	0.88
UCST206-18 206 206-19 206-20	1-1/8 1-3/16 1-1/4	30	16	10	56	37	22	57	13.5	89	102	113	37	28	70	38.1	15.9	**UC206-18 206 206-19 206-20**	ST 206	1.3
UCST207-20 207-21 207-22 207 207-23	1-1/4 1-5/16 1-3/8 1-7/16	35	16	13	64	37	22	64	13.5	89	102	129	37	30	78	42.9	17.5	**UC207-20 207-21 207-22 207 207-23**	ST 207	1.7
UCST208-24 208-25 208	1-1/2 1-9/16	40	19	16	83	49	29	83	17.5	102	114	144	49	33	88	49.2	19	**UC208-24 208-25 208**	ST 208	2.5
UCST209-26 209-27 209-28 209	1-5/8 1-11/16 1-3/4	45	19	16	83	49	29	83	17.5	102	117	144	49	35	87	49.2	19	**UC209-26 209-27 209-28 209**	ST 209	2.5
UCST210-30 210-31 210	1-7/8 1-15/16		19	16	83	49	49	86	17.5	102	117	149	49	37	90	51.6	19	**UC210-30 210-31 210**	ST 210	2.6
UCST211-32 211-34 211 211-35	2 2-1/8 2-3/16	50	25	19	102	64	35	95	27	130	146	171	64	38	106	55.6	22.2	**UC211-32 211-34 211 211-35**	ST 211	4.0
UCST212-36 212 212-38 212-39	2-1/4 2-3/8 2-7/16	60	32	19	102	64	35	102	27	130	146	194	64	42	119	65.1	25.4	**UC212-36 212 212-38 212-39**	ST 212	1.9

Flange Bracket Units

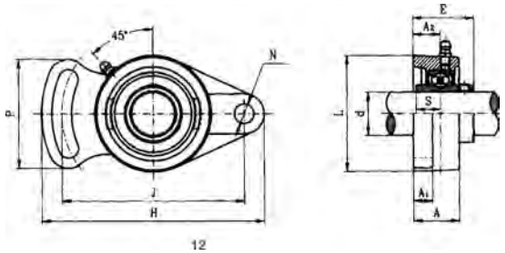


UCFB Set screw type

Unit No.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	Dimensions(mm) H_1	L_2	H_1	P	H	j	J	Dimensions(mm) A	A_1	A_2	N	E	S	Bolt Size	Bearing No.	Housing No.	Weight *(kg)*
UCFB202 **202-10** **203** **203-11** **UCFB204-12** **204**	5/8 11/16 3/4	20	110	62	52	52	42	27	32	25.5	13	15	10	33.3	12.7	M8	**UC202** **202-10** **203** **203-11** **UC204-12** **204**	FB203 FB204	0.42 0.41 0.62
UCFB205-14 **205-15** **205** **205-16**	7/8 15/16 1	25	116	68	52	56	45	27	34	27	13	16	10	35.8	14.3	M8	**UC205-14** **205-15** **205** **205-16**	FB205	0.69
UCFB206-18 **206** **206-19** **206-20**	1-1/8 1-3/16 1-1/4	30	132	80	55	65	50	29	40	31	13	18	10	40.2	15.9	M8	**UC206-18** **206** **206-19** **206-20**	FB206	0.93
UCFB207-20 **207-21** **207-22** **207** **207-23**	1-1/4 1-5/16 1-3/8 1-7/16	35	144	90	62	70	55	32	46	33	14	19	10	44.4	17.5	M8	**UC207-20** **207-21** **207-22** **207** **207-23**	FB207	1.3
UCFB208-24 **208-25** **208**	1-1/2 1-9/16	40	164	100	72	78	60	41	50	35	17	21	12	51.2	19	M10	**UC208-24** **208-25** **208**	FB208	1.8
UCFB209-26 **209-27** **209-28** **209**	1-5/8 1-11/16 1-3/4	45	175	108	76	80	65	43	54	38	16	22	12	52.2	19	M10	**UC209-26** **209-27** **209-28** **209**	FB209	2
UCFB210-30 **210-31** **210** **210-32**	1-7/8 1-15/16 2	50	184	114	82	86	68	46	58	39	16	22	12	54.6	19	M10	**UC210-30** **210-31** **210** **210-32**	FB210	2.3
UCFB211-32 **211-34** **211** **211-35**	2 2-1/8 2-3/16	55	207	128	86	90	78	50	62	42.5	18	25	14	58.4	22.2	M12	**UC211-32** **211-34** **211** **211-35**	FB211	
UCFB212-36 **212** **212-38** **212-39**	2-1/4 2-3/8 2-7/16	60	224	140	90	94	84	55	66	47.5	19	29	14	68.7	25.4	M12	**UC212-36** **212** **212-38** **212-39**	FB212	
UCFB213-40 **213**	2-1/2	65	244	152	95	102	92	60	70	49	20	30	14	69.7	25.4	M12	**UC213-40** **213**	FB213	

11 | Insert Ball Bearing Units

Adjustable Flange Units

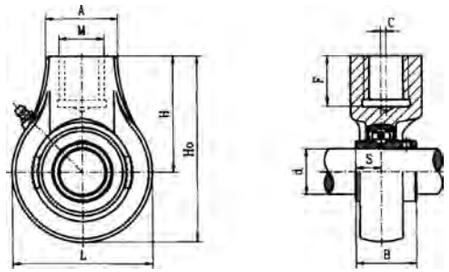


12

UCFA Set screw type

Unit No.	Shaft Dia. d (in.)	Shaft Dia. d (mm)	Dimensions(mm) H	J	L	P	A_1	A_2	A	N	E	S	Bolt Size	Bearing No.	Housing No.	Weight (kg)
UCFA202 202-10 203 203-11 UCFA204-12 204	3/4	20	96	78	60	54	12	15	25.5	10	33.3	12.7	M8	**UC202 202-10 203 203-11 UC204-12 204**	FA 203	0.37 0.36
															FA 204	0.45
UCFA205-14 205-15 205 205-16	7/8 15/16 1	25	122	96	70	64	13	16	27	12	35.8	14.3	M8	**UC205-14 205-15 205 205-16**	FA 205	0.69
UCFA206-18 206 206-19 206-20	1-1/8 1-3/16 1-1/4	30	141	115	80	68	14	18	30.5	12	40.2	15.9	M8	**UC206-18 206 206-19 206-20**	FA 206	1.0
UCFA207-20 207-21 207-22 207 207-23	1-1/4 1-5/16 1-3/8 1-7/16	35	155	128	92	75	15	19	33	13	44.4	17.5	M8	**UC207-20 207-21 207-22 207 207-23**	FA 207	1.5
UCFA208-24 208-25 208	1-1/2 1-9/16	40	171	44	105	84	14	21	38	13	51.2	19	M10	**UC208-24 208-25 208**	FA 208	1.8
UCFA209-26 209-27 209-28 209	1-5/8 1-15/16 1-3/4	45	178	146	108	88	16	22	38	16	52.2	19	M10	**UC209-26 209-27 209-28 209**	FA 209	2.1
UCFA210-30 210-31 210 210-32	1-7/8 1-15/16 2	50	188	155	114	92	16	22	39	16	54.6	19	M10	**UC210-30 210-31 210 210-32**	FA 210	2.3
UCFA211-32 211-34 211 211-32	2 2-1/8 2-3/16	55	216	182	128	102	18	25	42.5	16	58.4	22.2	M12	**UC211-32 211-34 211 211-32**	FA 211	3.6
UCFA212-36 212 212-38 212-39	2-1/4 2-3/8 2-7/16	60	238	202	140	122	19	29	47.5	18	68.7	25.4	M12	**UC212-36 212 212-38 212-39**	FA 212	
UCFA213-40 213	2-1/2	65	248	210	152	126	20	30	49	18	69.7	25.4	M12	**UC213-40 213**	FA 213	

Hanger Units



UCHA Set screw type

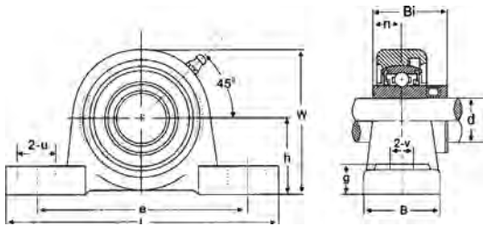
Unit No.	Shaft Dia. d (in.)	(mm)	Dimensions(mm) H_1	L	C	H	A	F	M	B	S
UCHA203 **203-11** **UCHA204-12** **204**	3/4	20	96	64	0	64	40	19	G3/4	31	12.7
UCHA205-14 **205-15** **205** **205-16**	7/8 15/16 1	25	103	78	0	64	40	19	G3/4	34.1	14.3
UCHA206-18 **206** **206-19** **206-20**	1-1/8 1-3/16 1-1/4	30	103	78	0	64	40	19	G3/4	38.1	15.9
UCHA207-20 **207-21** **207-22** **207** **207-23**	1-1/4 1-5/16 1-3/8 1-7/16	35	116	92	0	70	40	19	G3/4	42.9	17.5
UCHA208-24 **208-25** **208**	1-1/2 1-9/16	40	121	96	2	73	40	19	G3/4	49.2	19
UCHA209-26 **209-27** **209-28** **209**	1-5/8 1-11/16 1-3/4	45	136	108	5	82	48	21	G1	49.2	19
UCHA210-30 **210-31** **210** **210-32**	1-7/8 1-15/16 2	50	140.5	115	5	83	48	21	G1	51.6	19
UCHA211-32 **211-34** **211** **211-35**	2 2-1/8 2-3/16	55	150	126	7	87	60	24	G1-1/4	55.6	22.2
UCHA212-36 **212** **212-38** **212-39**	2-1/4 2-3/8 2-7/16	60	173	142	9	102	60	28	G1-1/4	65.1	25.4
UCHA213-40 **213**	2-1/2	65	200	166	9.5	117	70	32	G1-1/2	65.1	25.4
UCHA214-44 **214**	2-3/4	70	200	166	9.5	117	70	32	G1-1/2	74.6	30.2
UCHA215-47 **215** **215-48**	2-15/16 2	75	200	166	9.5	117	70	32	G1-1/2	77.8	33.2

Bearing No.	Housing No.	Weight *(kg)*
UC203 **203-11** **UC204-12** **204**	HA203 HA204	0.6 0.7
UC205-14 **205-15** **205** **205-16**	HA205	0.88
UC206-18 **206** **206-19** **206-20**	HA206	1.0
UC207-20 **207-21** **207-22** **207** **207-23**	HA207	1.2
UC208-24 **208-25** **208**	HA208	1.3
UC209-26 **209-27** **209-28** **209**	HA209	1.8
UC210-30 **210-31** **210** **210-32**	HA210	2.1
UC211-32 **211-34** **211** **211-35**	HA211	2.8
UC212-36 **212** **212-38** **212-39**	HA212	3.9
UC213-40 **213**	HA213	5.9
UC214-44 **214**	HA214	5.9
UC215-47 **215** **215-48**	HA215	5.9

11 | Insert Ball Bearing Units

Stainless Steel Ball Bearing Units

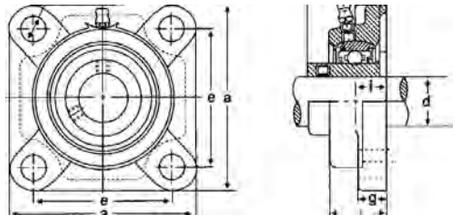
S.UCP200 Set screw type



Unit No.	Shaft Dia. (mm)	Dimensions(mm)										Bolt Size
		h	L	E	B	V	U	G	W	Bi	n	
S.UCP204	20	33.3	127	95	37	13	16	14	64	31	12.7	M10
S.UCP205	25	36.5	140	105	38	13	19	15	69.5	34	14.3	M10
S.UCP206	30	42.9	160	121	44	14	19	16	82	28.1	15.9	M12
S.UCP207	35	47.6	167	127	48	15	19	17	92	42.9	17.5	M12
S.UCP208	40	49.2	180	137	52	15	21	18	98	49.2	19	M12
S.UCP209	45	54	189	146	54	15	21	20	106	49.2	19	M12
S.UCP210	50	57.2	204	159	60	19	22	21	112	51.6	19	M16
S.UCP211	55	63.5	217	171	60	19	22	22	125	55.6	22.2	M16
S.UCP212	60	69.9	238	184	66	19	25	24	137	65.1	25.4	M16

Stainless Steel Square Flange Cast Blocks

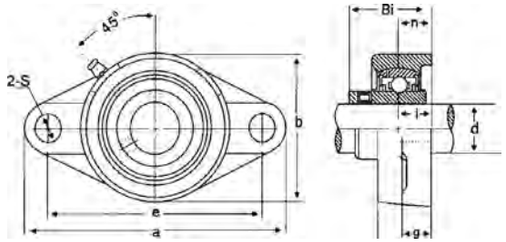
S.UCF 200 Series



Unit No.	Shaft Dia. (mm)	Dimensions(mm)/(in.)								Bolt Size
		a	e	i	g	l	s	Bi	n	
S.UCF204	20	86	64	15	11	25.5	12	31	12.7	M10
S.UCF205	25	95	70	16	13	27	12	34.1	14.3	M10
S.UCF206	30	108	83	18	13	31	12	38.1	15.9	M10
S.UCF207	35	117	92	19	15	34	14	42.9	17.5	M12
S.UCF208	40	130	102	21	15	36	16	49.2	19	M14
S.UCF209	45	137	105	22	16	38	16	49.2	19	M14
S.UCF210	50	143	111	22	16	40	16	51.6	19	M14
S.UCF211	55	162	130	25	18	43	19	55.6	22.2	M16
S.UCF212	60	175	143	29	18	48	19	65.1	25.4	M16

11 | Insert Ball Bearing Units

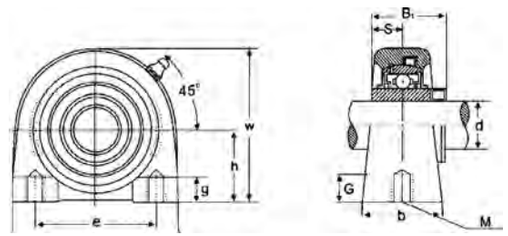
Two Bolt Flange Cast Housing



S.UCFL 200 Series

Unit No.	Shaft Dia. (mm)	Dimensions(mm)									Bolt Size
		a	e	i	g	l	s	b	Bi	n	
S.UCFL204	20	113	90	15	11	25.5	12	60	33.3	12.7	M10
S.UCFL205	25	130	99	16	13	27	16	68	35.7	14.3	M14
S.UCFL206	30	148	117	18	13	31	16	80	40.2	15.9	M14
S.UCFL207	35	161	130	19	15	34	16	90	44.1	17.5	M14
S.UCFL208	40	175	144	21	15	36	16	100	51.2	19	M14
S.UCFL209	45	188	148	22	16	38	19	108	52.2	19	M16
S.UCFL210	50	197	157	22	16	40	19	115	54.6	19	M16
S.UCFL211	55	224	184	25	18	43	19	130	58.4	22.2	M16
S.UCFL212	60	250	202	29	18	48	23	140	68.7	25.4	M20

Taped Base Pillow Blocks

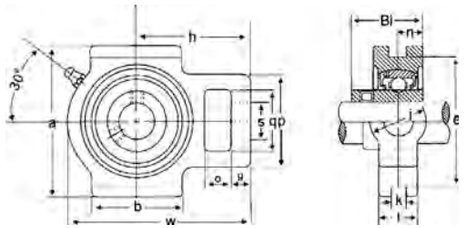


S.UCPA 200 Series

Unit No.	Shaft Dia. (mm)	Dimensions(mm)									Bolt Size
		h	a	e	b	G	g	w	Bi	S	
S.UCPA204	20	30.2	76	52	38	13	11	62	31.0	12.7	M10
S.UCPA205	25	36.5	84	56	38	15	12	72	34.1	14.3	M10
S.UCPA206	30	42.9	94	66	48	18	12	84	38.1	15.9	M14
S.UCPA207	35	47.6	110	80	48	20	13	95	42.9	17.5	M14
S.UCPA208	40	49.2	116	84	54	20	13	100	49.2	19.0	M14
S.UCPA209	45	54.2	120	90	54	25	13	108	49.2	19.0	M14
S.UCPA210	50	57.2	130	94	60	25	14	116	51.6	19.0	M16
S.UCPA211	55	63.5	140	104	66	25	14	125	55.6	22.2	M16
S.UCPA212	60	69.6	150	114	68	25	14	138	65.1	25.4	M16

11 | Insert Ball Bearing Units

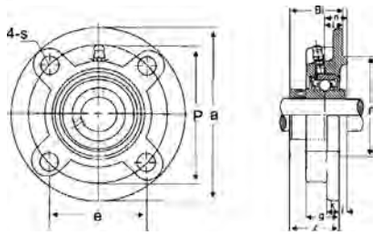
Take Up Units Cast Housing



S.UCT 200 Series

Unit No.	Shaft Dia. (mm)	Dimensions(mm)														
		o	g	p	q	s	b	k	e	a	w	i	l	h	Bi	n
S.UCT204	20	16	10	51	32	19	51	12	76	89	94	32	21	61	31	12.7
S.UCT205	25	16	10	51	32	19	51	12	76	89	97	32	24	62	34.1	14.3
S.UCT206	30	16	10	56	37	22	57	12	89	102	113	37	28	70	38.1	15.9
S.UCT207	35	16	13	64	37	22	64	12	89	102	129	37	30	78	42.9	17.5
S.UCT208	40	19	16	83	49	29	83	16	102	114	144	49	33	88	49.2	19
S.UCT209	45	19	16	83	49	29	83	16	102	117	144	49	35	87	49.2	19
S.UCT210	50	19	16	83	49	29	86	16	102	117	149	49	37	90	51.6	19
S.UCT211	55	25	19	102	64	35	95	22	130	146	171	64	38	106	55.6	22.2
S.UCT212	60	25	19	102	64	35	102	22	130	146	194	64	42	119	65.1	25.4

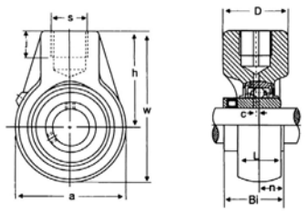
Flange Cartridge Units Cast Housing



S.UCFC 200 Series

Unit No.	Shaft Dia. (mm)	Dimensions(mm)												Bolt Size
		a	p	e	i	s	j	k	g	f	z	Bi	n	
S.UCFC204	20	100	78	55.1	10	12	5	7	20.5	62	28.3	31	12.7	10
S.UCFC205	25	115	90	63.6	10	12	6	7	21	70	29.7	34.1	14.3	10
S.UCFC206	30	125	100	70.7	10	12	8	8	23	80	32.2	38.1	15.9	10
S.UCFC207	35	135	110	77.8	11	14	8	9	26	90	36.4	42.9	17.5	12
S.UCFC208	40	145	120	84.8	11	14	10	9	26	100	41.2	42.9	19	12
S.UCFC209	45	160	132	93.3	10	16	12	14	26	105	40.2	42.9	19	14
S.UCFC210	50	165	138	97.6	10	16	12	14	28	110	42.6	51.6	19	14
S.UCFC211	55	185	150	106.1	13	19	12	15	31	125	46.4	55.6	22.2	16
S.UCFC212	60	195	160	113.1	17	19	12	15	36	135	56.7	65.1	25.4	16

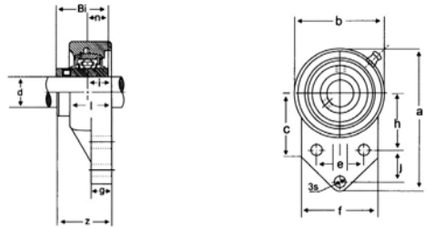
Stainless Steel Hange Units Cast Housing



S.UCHA 200 Series

Unit No.	Shaft Dia. (mm)	Dimensions(mm)									
		a	w	h	D	S(in)	i	Bi	n	c	L
S.UCHA204	20	64	96	64	40	G3/4	19	31	12.7	0	21
S.UCHA205	25	70	103	64	40	G3/4	19	34.0	14.3	0	24
S.UCHA206	30	78	103	64	40	G3/4	19	38.1	15.9	0	28
S.UCHA207	35	92	116	70	40	G3/4	19	42.9	17.5	0	30
S.UCHA208	40	96	121	73	40	G3/4	19	42.9	19.0	2	33
S.UCHA209	45	108	136	82	48	G1	21	42.9	19.0	4	35
S.UCHA210	50	118	142	83	48	G1	21	51.6	19.0	5	37
S.UCHA211	55	126	150	87	60	G5/4	25	55.6	22.2	7	38
S.UCHA212	60	142	173	102	60	G5/4	26	65.1	25.4	9	42

Stainless Steel Three Hole Block



S.UCFB 200 Series

Unit No.	Shaft Dia. (mm)	Dimensions(mm)														Bolt size
		a	h	e	j	i	g	l	c	s	b	f	z	Bi	n	
S.UCFB204	20	110	42	32	27	15	13	25.5	52.0	10	62	52	33.3	31	12.7	M8
S.UCFB205	25	116	45	34	27	16	13	27.0	52	10	68	56	35.7	34.1	14.3	M8
S.UCFB206	30	130	50	40	29	18	13	31.0	55	10	78	65	40.2	38.1	15.9	M8
S.UCFB207	35	144	55	46	32	19	15	34.0	62	10	90	70	44.4	42.9	17.5	M8
S.UCFB208	40	164	60	50	41	21	16	36.0	72	12	100	78	51.2	49.2	19.0	M10
S.UCFB209	45	174	65	54	43	22	18	38.0	76	12	106	80	52.2	49.2	19.0	M10
S.UCFB210	50	184	68	58	46	22	18	40.0	82	12	112	86	54.6	51.6	19.0	M10

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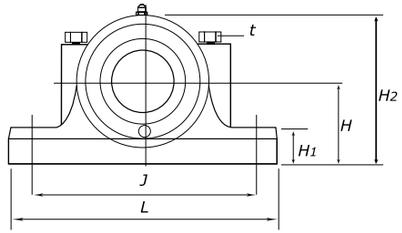
BEARINGS

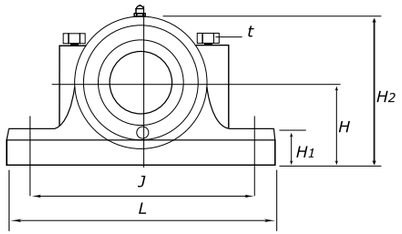
Plummer Blocks

Plummer Blocks Housing Series: SN 2



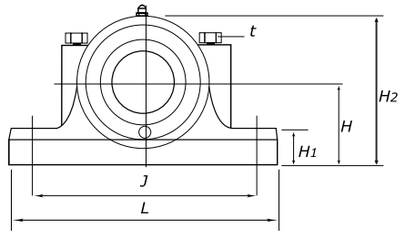
Boundary dimensions (mm)			Shaft Dia (mm)	Bearing No.	Weight (kg)
L	*H*	*H2*			
165	40	75	25	SN 205	1.10
185	50	90	30	SN 206	1.70
185	50	95	35	SN 207	1.90
205	60	110	40	SN 208	2.60
205	60	112	45	SN 209	2.80
205	60	115	50	SN 210	3.00
255	70	130	55	SN 211	4.50
255	70	135	60	SN 212	5.00
275	80	150	65	SN 213	5.60
275	80	155	70	SN 214	6.20
280	80	155	75	SN 215	7.00
315	95	175	80	SN 216	9.00
320	95	185	85	SN 217	10.00
345	100	195	90	SN 218	13.00
345	112	210	95	SN 219	15.00
380	112	223	100	SN 220	19.00
410	125	245	110	SN 222	20.00
410	140	270	120	SN 224	25.00
445	150	290	130	SN 226	30.00
500	150	305	140	SN 228	38.00
530	160	325	150	SN 230	46.00

Plummer Blocks Metric Dimensions Series: SN 5



Boundary dimensions (mm)			Shaft Dia (mm)	Bearing No.	Weight (kg)
L	H	H2			
165	40	75	20	**SN 505**	1.200
185	50	90	25	**SN 506**	1.700
185	50	95	30	**SN 507**	2.000
205	60	110	35	**SN 508**	2.700
205	60	112	40	**SN 509**	2.900
205	60	115	45	**SN 510**	3.200
255	70	130	50	**SN 511**	4.200
255	70	135	55	**SN 512**	4.800
275	80	150	60	**SN 513**	5.600
280	80	155	65	**SN 515**	6.900
315	95	175	70	**SN 516**	8.800
320	95	185	75	**SN 517**	9.500
345	100	195	80	**SN 518**	13.000
345	112	210	85	**SN 519**	15.000
380	112	223	90	**SN 520**	19.000
410	125	245	100	**SN 522**	20.200
410	140	270	110	**SN 524**	23.200
445	150	290	115	**SN 526**	29.000
500	150	305	125	**SN 528**	36.500
530	160	325	135	**SN 530**	43.600

Plummer Blocks Housing Metric Dimensions Series: SN 6



Boundary dimensions (mm)			Shaft Dia (mm)	Bearing No.	Weight (kg)
L	H	H2			
185	50	90	20	**SN 605**	1.6
185	50	95	25	**SN 606**	1.8
205	60	110	30	**SN 607**	2.6
205	60	115	35	**SN 608**	2.9
255	70	130	40	**SN 609**	4.1
255	70	135	45	**SN 610**	4.7
275	80	150	50	**SN 611**	5.8
280	80	155	55	**SN 612**	6.5
315	95	175	60	**SN 613**	8.7
345	100	195	65	**SN 615**	11.3
345	112	212	70	**SN 616**	12.6
380	112	223	75	**SN 617**	15.0
380	112	230	80	**SN 618**	22.0
410	125	250	85	**SN 619**	26.3
410	140	270	90	**SN 620**	31.5
450	150	300	100	**SN 622**	42.0
530	160	320	110	**SN 624**	60.0
550	170	340	115	**SN 626**	63.2
610	180	365	125	**SN 628**	94.5
650	190	385	135	**SN 630**	105.0

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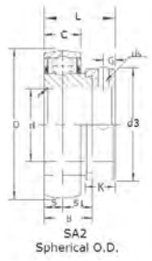
BEARINGS

Special Products

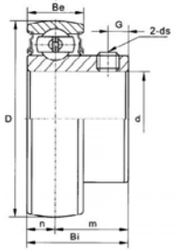
Estd. 1983 DPI® BEARINGS

Radial Insert Ball Bearings With Eccentric Locking Collar



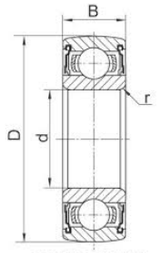
Boundary dimensions (mm)											Load rating (kN)		Bearing No.	Weight (kg)
d	*Be*	*D*	*B1*	*n*	*m*	*Bi*	*K*	*H*	*G*	*h*	*Dynamic C*	*Static Co*		
12	12	40	19.1	6	13	29	28.6	13.5	5	3.6	960	480	**SA 201**	0.13
15	12	40	19.1	6	13	29	28.6	13.5	5	3.6	960	480	**SA 202**	0.13
17	12	40	19.1	6	13	29	28.6	13.5	5	3.6	960	480	**SA 203**	0.13
20	14	47	21.5	7	15	31	33.3	13.5	5	3.9	1000	630	**SA 204**	0.15
25	15	52	21.5	7.5	14	31	38.1	13.5	5	3.9	1100	710	**SA 205**	0.22
30	16	62	23.8	8	16	36	44.5	15.9	6	5	1520	1020	**SA 206**	0.3
35	17	72	25.4	8.5	17	39	55.6	17.5	6.5	5.5	2010	1390	**SA 207**	0.5
40	18	80	30.2	9	21	44	60.3	18.3	6.5	6	2560	1810	**SA 208**	0.67
45	19	85	30.2	9.5	21	44	63.5	18.3	6.5	6.3	3300	2100	**SA 209**	0.73
50	20	90	30.2	10	20	44	69.9	18.3	6.5	6.5	3500	2300	**SA 210**	0.83
55	24	100	32.4	12	20	48	76.2	20.7	8	7.2	4400	3000	**SA 211**	0.87
60	24	110	33.4	12	21	53	84.2	22.3	8	8	4850	2960	**SA 212**	1.3

Spherical O.D. With Set Screws



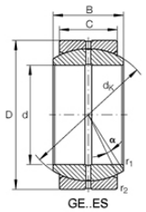
Boundary dimensions (mm)								Load rating kN)		Bearing No.	Weight (kg)
(mm)	Be	D	B1	n	m	G	h	*Dynamic C*	*Static Co*		
12	12	40	22	6.0	16.0	4.5	3.6	760	450	**SB 201**	0.10
15	12	40	22	6.0	16.0	4.5	3.6	760	450	**SB 202**	0.10
17	12	40	22	6.0	16.0	4.5	3.6	760	450	**SB 203**	0.10
20	14	47	25	7.0	18.0	4.5	3.9	1000	630	**SB 204**	0.15
25	15	52	27	7.5	19.5	5.5	3.9	1100	710	**SB 205**	0.18
30	16	62	30	8.0	22.0	5.5	5.0	1520	1020	**SB 206**	0.27
35	17	72	32	8.5	23.5	6.5	5.5	2010	1390	**SB 207**	0.42
40	18	80	34	9.0	25.0	7.0	6.0	2560	1810	**SB 208**	0.60
45	19	85	41.2	9.5	31.7	8.2	6.3	3260	2450	**SB 209**	0.80
50	20	90	41.6	10.0	31.6	9.2	6.5	3580	2300	**SB 210**	0.83
55	23	100	45.3	11.8	33.5	9.8	7.2	4400	2960	**SB 211**	1.1
60	24	110	53.7	14.9	38.8	9.8	8	4850	3300	**SB 212**	1.3

Spherical Radial Ball Bearings



Boundary dimensions (mm)				Load rating kN)		Bearing No.	Weight (kg)
d	D	B	r	*Dynamic C*	*Static Co*		
12	32	10	0.6	6800	3050	**CS201**	0.039
15	35	11	0.6	7650	3720	**CS202**	0.039
17	40	12	0.6	9580	4780	**CS203**	0.050
20	47	14	1	12800	6650	**CS204**	0.095
25	52	15	1	14000	7880	**CS205**	0.11
	62	17	1.1	22200	11500	**CS305**	0.20
30	62	16	1	19500	11500	**CS206**	0.18
	72	19	1.1	27000	15200	**CS306**	0.30
35	72	17	1.1	25500	15200	**CS207**	0.25
	80	21	1.5	33200	19200	**CS307**	0.40
40	80	18	1.1	29500	18000	**CS208**	0.32
	90	23	1.5	40800	24000	**CS308**	0.55
45	85	19	1.1	31500	20800	**CS209**	0.37
	100	25	1.5	52800	31500	**CS309**	0.73
50	90	20	1.1	35000	23200	**CS209**	0.41
	100	27	2	61800	38000	**CS309**	0.95

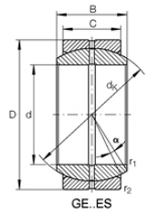
Radial Spherical plain Bearings



GE..ES

Boundary dimensions (mm)					Load rating kN)		Bearing No.	Weight (kg)
d	D	B	C	dk	*Dynamic C*	*Static Co*		
12	22	10	7	18	10.8	54.0	**GE12ES**	0.016
15	26	12	9	22	17.0	85.0	**GE15ES**	0.025
17	30	14	10	25	21.2	106	**GE17ES**	0.041
20	35	16	12	29	30	146	**GE20ES**	0.061
25	42	20	16	35.5	48	240	**GE25ES**	0.11
30	47	22	18	40.7	62	310	**GE30ES**	0.14
35	55	25	20	47	80	400	**GE35ES**	0.22
40	62	28	22	53	100	500	**GE40ES**	0.30
45	68	32	25	60	127	640	**GE45ES**	0.40
50	75	35	28	66	156	780	**GE50ES**	0.54
60	90	44	36	80	245	1220	**GE60ES**	1.0
70	105	49	40	92	315	1560	**GE70ES**	1.5
80	120	55	45	105	400	2000	**GE80ES**	2.2
90	130	60	50	115	490	2450	**GE90ES**	2.7
100	150	70	55	130	610	3050	**GE100ES**	4.3
110	160	70	55	140	655	3250	**GE110ES**	4.7
120	180	85	70	160	950	4750	**GE120ES**	8.0
140	210	90	70	180	1080	5400	**GE140ES**	11.0
160	230	105	80	200	1370	6800	**GE160ES**	13.5

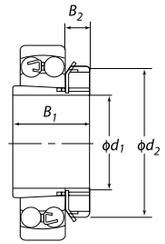
Radial Spherical plain Bearings



GE..ES

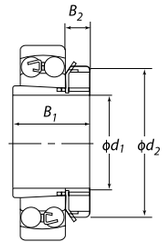
Boundary dimensions (mm)					Load rating kN)		Bearing No.	Weight (kg)
d	D	B	C	dk	*Dynamic C*	*Static Co*		
12	26.0	15	9	22	17.0	85.0	**GEG12ES**	0.034
15	30	16	10	25	21.2	106	**GEG15ES**	0.046
17	35	20	12	29	30.0	146.0	**GEG17ES**	0.078
20	42	25	16	35.5	48	240	**GEG20ES**	0.015
25	47	28	18	40.7	62	310	**GEG25ES**	0.19
30	55	32	20	47	80	400	**GEG30ES**	0.29
35	62	35	22	53	100	500	**GEG35ES**	0.39
40	68	40	25	60	127	640	**GEG40ES**	0.52
45	75	43	28	66	156	780	**GEG45ES**	0.68
50	90	56	36	80	245	1220	**GEG50ES**	1.4
60	105	63	40	92	315	1560	**GEG60ES**	2.0
70	120	70	45	105	400	2000	**GEG70ES**	2.9
80	130	75	50	115	490	2450	**GEG80ES**	3.5
90	150	85	55	130	610	3050	**GEG90ES**	5.4
100	160	85	55	140	655	3250	**GEG100ES**	5.9
110	180	100	70	160	950	4750	**GEG110ES**	9.7
120	210	115	70	180	1080	5400	**GEG120ES**	15
140	230	130	80	200	1370	6800	**GEG140ES**	18.5

Adapter assemblies for self-aligning Ball Bearings



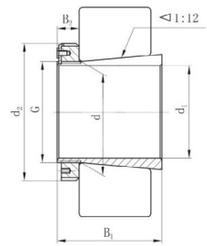
Bearing	Bearing Bore d	Boundary dimensions (mm)				ГОСТ	Adapter No.	Weight (kg)
		d1	B1	d2	b2			
1204K	20	17	24	32	7	H204	**H204**	0.041
1205K	25	20	26	38	8	H205	**H205**	0.070
1206K	30	25	27	45	8	H206	**H206**	0.099
1207K	35	30	29	52	9	H207	**H207**	0.125
1208K	40	35	31	58	10	H208	**H208**	0.174
1209K	45	40	33	65	11	H209	**H209**	0.227
1210K	50	45	35	70	12	H210	**H210**	0.274
1211K	55	50	37	75	12	H211	**H211**	0.308
1212K	60	55	38	80	13	H212	**H212**	0.346
1213K	65	60	40	85	14	H213	**H213**	0.401
1214K	70	60	41	92	14	H214	**H214**	0.593
1215K	75	65	43	98	15	H215	**H215**	0.707
1216K	80	70	46	105	17	H216	**H216**	0.882
1217K	85	75	50	110	18	H217	**H217**	1.020
1218K	90	80	52	120	18	H218	**H218**	1.190
1219K	95	85	55	125	19	H219	**H219**	1.370
1220K	100	90	58	130	20	H220	**H220**	1.490

Adapter assemblies for self-aligning Ball Bearings



Bearing		Bearing Bore d	Boundary dimensions (mm)				ГОСТ	Adapter No.	Weight (kg)
			d1	B1	d2	b2			
2204K	**1304K**	20	17	28	32	7	H304	**H304**	0.045
2205K	**1305K**	25	20	29	38	8	H305	**H305**	0.075
2206K	**1306K**	30	25	31	45	8	H306	**H306**	0.109
2207K	**1307K**	35	30	35	52	9	H307	**H307**	0.142
2208K	**1308K**	40	35	36	58	10	H308	**H308**	0.189
2209K	**1309K**	45	40	39	65	11	H309	**H309**	0.248
2210K	**1310K**	50	45	42	70	12	H310	**H310**	0.303
2211K	**1311K**	55	50	45	75	12	H311	**H311**	0.345
2212K	**1312K**	60	55	47	80	13	H312	**H312**	0.394
2213K	**1313K**	65	60	50	85	14	H313	**H313**	0.458
2214K	**1313K**	70	60	52	92	14	H314	**H314**	0.723
2215K	**1315K**	75	65	55	98	15	H315	**H315**	0.831
2216K	**1316K**	80	70	59	105	17	H316	**H316**	1.030
2217K	**1317K**	85	75	63	110	18	H317	**H317**	1.180
2218K	**1318K**	90	80	65	120	18	H318	**H318**	1.370
2219K	**1319K**	95	85	68	125	19	H319	**H319**	1.560
2220K	**1320K**	100	90	71	130	20	H320	**H320**	1.690

Adapter Sleeves



Boundary dimensions (mm)						Sleeve No.
dO	d	dZ	D	L	a	
20	25	M25*1.5	38	35	8	**H2305**
25	30	M30*1.5	45	38	8	**H2306**
30	35	M35*1.5	52	43	9	**H2307**
35	40	M40*1.5	58	46	10	**H2308**
40	45	M45*1.5	65	50	11	**H2309**
45	50	M50*1.5	70	55	12	**H2310**
50	55	M55*2	75	59	12	**H2311**
55	60	M60*2	80	62	13	**H2312**
60	65	M65*2	85	65	14	**H2313**
65	75	M75*2	98	73	15	**H2315**
70	80	M80*2	105	78	17	**H2316**
75	85	M85*2	110	82	18	**H2317**

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