



BALL and ROLLER BEARINGS

Catalog #A1000 – VI



WARRANTY

NTN bearings are warranted to be free from defects in materials and workmanship. The obligation of NTN under this warranty is limited to replacing any bearing which is proven to be defective within one year of purchase, under the following provisions:

1. The application of the product was approved by NTN.
2. The product is delivered to NTN with transportation charges prepaid.
3. Analysis of NTN verifies that the product was properly handled, mounted, lubricated and not subjected to abuse.

THIS WARRANTY IS IN LIEU OF ALL WARRANTIES OF MERCHANTABILITY, FITNESS FOR PURPOSE, OR AL OTHER WARRANTIES, EXPRESSED OR IMPLIED.

NTN shall not be liable for any special, indirect, or consequential damages. The remedies set forth herein are exclusive, and the liability of NTN with respect to any contract or sale or anything done in connection therewith, in contract, in tort, under any warranty, or otherwise, shall not exceed the price of the bearing on which such liability is based.

Although care has been taken to assure the accuracy of the data compiled in this catalog, NTN does not assume any liability to any company or person for errors or omissions.

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NTN is one of the three largest bearing companies in the world. With facilities at the hub of industrial centers around the globe, NTN Bearing Corporation is in an enviable position to best serve its customers, both domestic and worldwide.

In North America, as in all our manufacturing facilities, we attain maximum efficiency using our automated production equipment and processes to produce quality high-volume standard bearing sizes. Low-volume bearings and sizes are manufactured in a single facility and then exported worldwide according to customer requirements. All bearing types and sizes currently used in North America are in inventory at warehouses across the continent.

To best serve our customers, NTN devotes all resources to a single objective: production of the finest quality ball and roller bearings. All of our plants use advanced processing and high speed automated production equipment, engineered and built by NTN, to support our capacity for ultra-high quality bearings. NTN's Statistical Process Control programs ensure

that during the production run, every bearing produced meets or exceeds AFBMA and ISO standards. Electro-mechanical quality inspection is present at every phase of manufacturing.

Proof of NTN's success at meeting our objective are the many quality awards received from our customers. Another cherished award was received in 1954 when NTN became the first bearing manufacturer to win the Deming Prize. This prestigious award is given for outstanding performance above all mechanical industries in statistical quality control, and efficiency of machinery and management. NTN's rigid quality standards originated with the company in 1918, and is the basis for every product innovation and corporate decision made today.

NTN's highly trained employees are here to serve your engineering, sales, and manufacturing needs. Customers receive unparalleled attention through technical assistance from over 700 engineers in North America, Europe and the Far East — all linked through 24-hour global communications. This provides



you with access to support from research and development engineers, application experts and field engineers. Our extensive testing and development laboratories keep us at the leading edge of bearing technology. NTN's North American Technical Center located in Ann Arbor, Michigan, is fully equipped with the latest in metallurgical, mechanical, metrology, and electro-mechanical test equipment.

NTN became a world leader through attention to our customers' needs and constant technological innovations. Value-added bearings are NTN's forte. Our quality level allows purchasers to take them directly from receiving dock to application, eliminating incoming inspection costs. They add value to your end product with longer lifetime, less downtime and less maintenance.

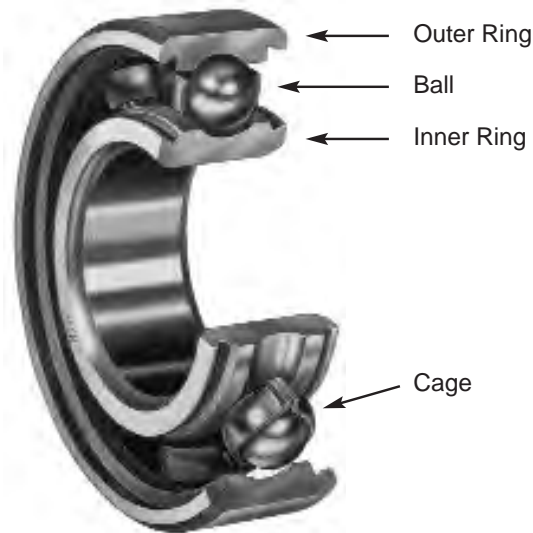




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| <p>1918 Began research and manufacture of ball bearings at Nishizono Ironworks (Uchibori, Kuwana-cho, Kuwanagun, Mie Pref.)</p> <p>1923 Nishizono Ironworks and Tomoe Trading Co. (Nishi-ku, Osaka) inaugurated joint manufacture and sale of bearings under the brand name NTN.</p> <p>1927 NTN Mfg. Co., Ltd. established with capital of ~50, 000.</p> <p>1937 Renamed the Toyo Bearing Mfg. Co., Ltd.</p> <p>1938 Established Showa Bearing Mfg. Co., Ltd. (Muko-gun, Hyogo Pref.)</p> <p>1939 Kuwana Plant constructed.
Showa Bearing Mfg. Co., Ltd. merged to become Muko-gawa Plant.</p> <p>1950 Established NTN Sales Co., Ltd.</p> <p>1954 Awarded Deming Prize for statistical quality control for the first time in the machinery industry.</p> <p>1960 Established Toyo Bearing Iwata Co., Ltd.
Established NTN Walzlager (Europa).</p> <p>1962 Constructed needle bearing factory in Toyo Bearing Iwata Co., Ltd.
Changed name of Muko-gawa Plant to Takarazuka Plant.
Established Toyo Bearing Machine Tool Laboratory Co., Ltd.</p> <p>1963 Established NTN Bearing Corp. of America, New York.
Skokie, IL, office and warehouse opened.</p> <p>1964 Established NTN France S.A.
Established NTN Bearings (UK) Ltd.</p> <p>1966 Established NTN Powdered Metal Co., Ltd.</p> <p>1967 Executed Technical Assistance Agreement with Tung Yang Bearing Mfg. Co., Ltd. (Taiwan)
NBCA Lincolnwood, IL, Head Office and warehouse established.</p> <p>1968 Established NTN Bearing Corp. of Canada Ltd.</p> <p>1970 NBCA California sales office opened.</p> <p>1971 Established American NTN Bearing Mfg. Corp. (Schiller Park, IL)</p> | <p>Established NTN Trading-Hong Kong Ltd.</p> <p>Established Toyo Bearing Okayama Co.,Ltd.</p> <p>Established NTN Kugellagerfabrik. (Deutschland)
NBCA Atlanta sales office opened.</p> <p>1972 Renamed as NTN Toyo Bearing Co., Ltd.
Established NTN Product Development Institute.
NBCA Irvine, CA, office and warehouse occupied.
NBCA Headquarters building occupied. (Des Plaines, IL)</p> <p>1973 Established NTN Bearing Mfg. (Canada) Ltd. (Merged into NTN Bearing Corp. of Canada Ltd. in 1980.)
Constructed constant-velocity joint factory in Toyo Bearing Iwata Co., Ltd.</p> <p>1975 Established NTN Elgin Corp. (U.S.A.). (Merged into American NTN Bearing Mfg. Corp. in 1985.)
New Takarazuka Plant completed.
NBCA Michigan sales office opened.</p> <p>1976 NBCA Dallas sales office opened.</p> <p>1977 NBCA Totowa, NJ, office and warehouse occupied.</p> <p>1980 NBCA Automitve Sales/Engineering Office established, Southfield, MI.
NBCA Distribution office and warehouse established, Mt. Prospect, IL.</p> <p>1981 Research Departments reorganized into General Engineering Laboratory.</p> <p>1982 Constructed constant-velocity joint factory in Toyo Bearing Okayama Co. Ltd.
Constant Velocity joint technology licensed to Hyundai Motors (South Korea).
NBCA Norcross, GA, office and warehouse occupied.</p> <p>1983 Constant velocity joint technology licensed to Lepco Co, Ltd. (Australia)
Merged with Toyo Bearing Iwata Co., Ltd. and Toyo Bearing Okayama Co., Ltd.
Constant velocity joint technology licensed to Taiway Ltd. (Taiwan)</p> |
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- NBCA Irving, TX, office and warehouse occupied.
- NBCA Headquarters building expanded. (Des Plaines, IL)
- NBCA Midwest and Central sales offices established. (Des Plaines, IL)
- NBCA Peopria, IL, sales office opened.
- 1984 Ground broken for Elgin, IL, tapered roller bearing manufacturing facility.
- 1985 Established Toyo Bearing Nagano Co. Ltd.
Bearing production technology licensed to National Engineering Industries Ltd. (India)
Established NTN-Bower Corporation, a joint venture with Federal-Mogul Corporation. (U.S.A.)
- 1986 Constructed (in Kuwana Plant) Japan's first plant dedicated to aerospace bearings.
- 1987 NTN-Bower Corporation became 100% owned affiliate.
- 1988 Established NTN Technical Center (U.S.A.) Inc. (Ann Arbor, MI)
- Established Unidrive Pty. Ltd., a joint venture manufacturer of constant velocity joints in Australia.
- Ground broken for Elgin, IL, bearing hub unit manufacturing facility.
- 1989 Built new building for R&D at Iwata Plant.
Merged with Toyo Bearing Nagano Co.
Established NTN Driveshaft Inc. (Columbus, IN — CVJ facility)
Renamed parent company NTN Corporation.
Bearing hub unit production began at Elgin, IL, facility.
- 1990 Built new building for R&D at Kuwana Plant.
NTN USA Corporation founded as headquarters in the U.S.A.
- 1991 NBCA and NTN USA Corp. occupied new Head Office in Mt. Prospect, IL.
NBCA Eastern Region occupied new offices, training center and warehouse in Exton, PA.





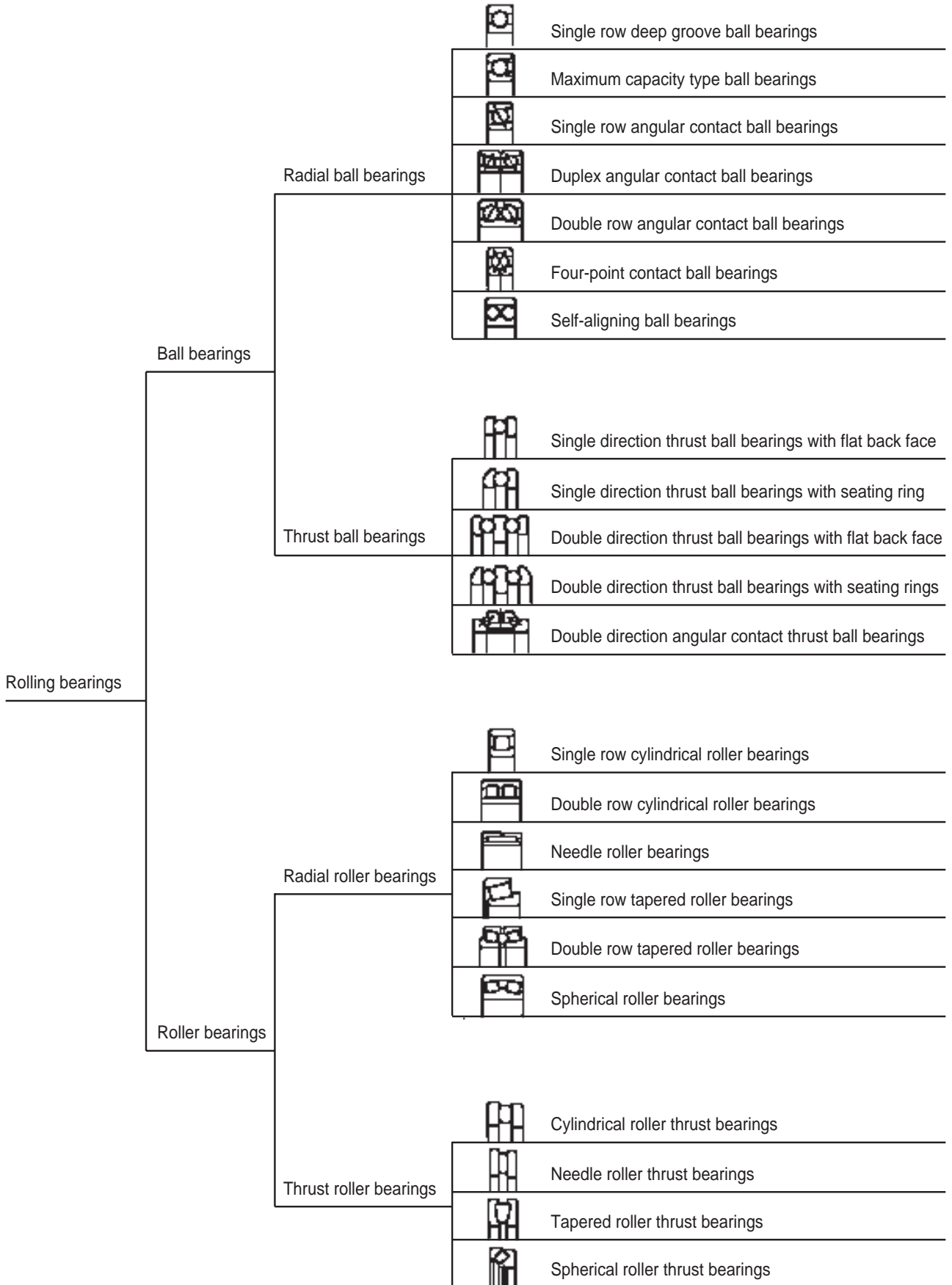
CLASSIFICATION OF ANTI-FRICTION BEARINGS

Most rolling bearings consist of bearing rings (an inner ring and an outer ring), rolling elements and a rolling element retainer (cage). The retainer separates the rolling elements at regular intervals, holds them in place within the inner and outer raceways, and allows them to rotate freely.

Rolling bearings fall into two main classifications: ball bearings and roller bearings. Balls geometrically contact the raceway surfaces of the inner and outer rings at “points,” while the contact surface of rollers is a “line” contact. Rollers come in four basic geometric styles: cylindrical, needle,

tapered and spherical. Rolling bearings can further be classified according to the direction in which the load is applied: radial, thrust, or a combination of both.

While the rolling elements and the bearing rings take any load applied to the bearings (at the contact point between the rolling elements and raceway surfaces), the retainer takes no direct load. It only serves to hold the rolling elements at equal distances from each other, forcing the rolling elements to enter the load zones and prevent them from falling out.





DESIGN AND CHARACTERISTICS OF BALL AND ROLLER BEARINGS

SINGLE ROW RADIAL BALL BEARINGS are the most widely used bearings and utilize an uninterrupted raceway, which makes these bearings suitable for radial loads, or a combination of thrust and radial loads. This design permits precision tolerances even at high speed operation.



The cage in this bearing is pressed steel. For high speed bearings, machined brass cages are available. Bearings with locating snap rings are also available.

PRELUBRICATED BEARINGS have integral seals, or shields, which are packed with long-life grease. In many applications, these bearings may be used without supplementary seals, closures, or protective devices. This design offers the lowest possible manufacturing cost to the consumer.

The boundary dimension of this type is the same as the corresponding bearings without the seals or shields.

SHIELDED BALL BEARINGS are protected on one, or both sides (suffixes Z and ZZ, respectively) by metal shields fastened to the outer ring. This close clearance labyrinth seal retains the lubricant and prevents the entrance of foreign matter.



SEALED BALL BEARINGS incorporate steel reinforced rubber seals securely fastened to a groove on the outer ring. Contact with the inner ring is by sealing lip (Contact Suffix LLU). Or, non-contact with the inner ring is by labyrinth seal (Non-contact Suffix LLB) to provide positive sealing at all times.



SINGLE ROW ANGULAR CONTACT BALL BEARINGS feature raceways with high and low shoulders. These opposing raceways are designed to carry thrust load in one direction.

These bearings may be preloaded at the factory so that the correct preload will develop within the bearing.



The bearings in this series are assembled with a specific internal clearance so that they will have a speci-

fied contact angle under load. The standard contact load used by NTN is 30°; bearings made to a 40° contact angle carry the suffix B.

For high speed grinding spindles, the 7000C, 7200C and the 7300C series are available. They are high accuracy bearings with a 15° contact angle, and phenolic resin cages for high speed operations.

DOUBLE ROW ANGULAR CONTACT BALL BEARINGS have an inner and outer ring with a double raceway.

The two rows are so related that the contact angle is similar to a pair of back-to-back single row bearings. The 5200 and 5300 series offer continuous races and can carry thrust loads in either direction. Since the 3200 and 3300 series have filling slots, it is necessary to mount them with the thrust load acting against the unnotched face of the rings.



DOUBLE ROW SELF-ALIGNING BEARINGS utilize an inner ring with two rows of balls in two deep raceways, and an outer ring with a single spherical raceway. In this way, the inner and outer rings can be misaligned relative to each other. The resulting effect is a comparatively large angle imposing moment loads upon the balls.

The boundary dimensions of the 1200 and 1300 series are the same as the 6200 and 6300 single row deep groove bearings.

CYLINDRICAL ROLLER BEARINGS have rollers which are essentially cylindrical in shape. This provides a modified line contact with the cylindrical inner and outer ring raceways, while the rollers are guided by ground ribs on either the inner or outer ring.

The cylindrical shape allows the inner ring to have axial movement relative to the outer ring (except the NH type). This is especially important when accommodating thermal expansion when both rings must be press fitted.

In this series, the NJ, NF and NH types can carry light or intermittent thrust loads.

The NN3000 and NN3000K series are available in high precision tolerances and are well suited for use in machine tool spindles.

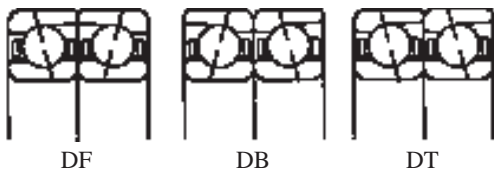
TAPERED ROLLER BEARINGS utilize conical rollers and raceways arranged so that the rollers and raceways meet at a common apex. The rollers are guided by contact between the large end of the roller and a rib on the inner ring. This provides high capacity for radial and single thrust loads.



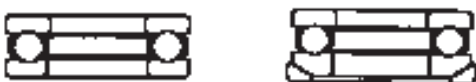
SPHERICAL ROLLER BEARINGS have two rows of rollers in separate raceways which allows the bearing to compensate for angular thrust errors. They have large radial and thrust load capacity for heavy shock and impact loads, making them suitable for heavy industrial equipment.

DUPLEX BEARINGS use a set of two on a common shaft with the inner and outer rings clamped solidly together. They are used to gain axial shaft control, rigidity and extra capacity.

There are three fundamental combinations in duplex bearings: face-to-face (DF), back-to-back (DB), and tandem (DT).

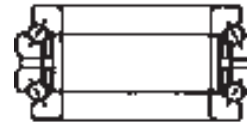


SINGLE DIRECTION THRUST BEARINGS consist of two washers having ball grooves ground into their adjacent faces with balls and cages mounted between these grooves. They are normally equipped with either pressed or machined cages and are suitable for carrying thrust loads at moderate speeds.



DOUBLE DIRECTION ANGULAR CONTACT THRUST BALL BEARINGS are back-to-back duplex bearings with a larger contact angle than that of normal angular contact ball bearings.

These bearings are primarily designed as thrust bearings for machine tools. They utilize machined brass cages.

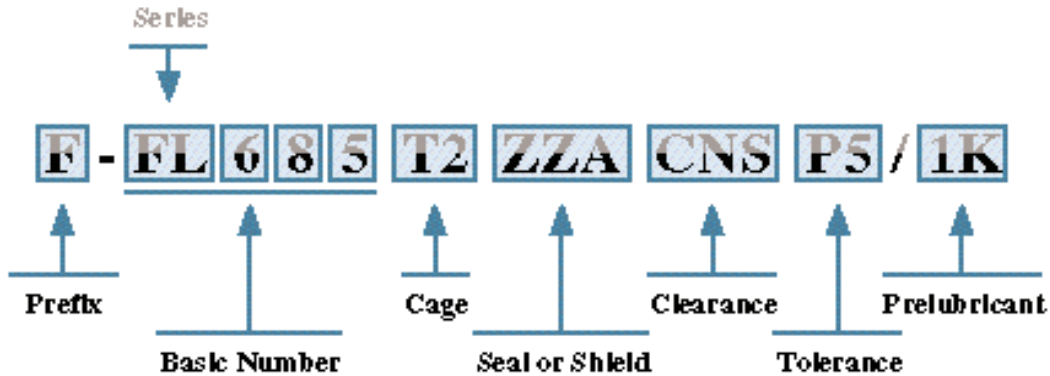


SPHERICAL ROLLER THRUST BEARINGS are similar to double row spherical roller bearings, but have a greater contact angle. They are guided by ground flanges on the inner ring and operate against the spherical raceway in the outer ring. The contact angle is approximately 45°. Machined cages are normally used, and oil lubrication is recommended.





Open Type	Single Shield Type	Double Shield Type	Open Type	Flanged Outer Ring Single Shield Type	Double Shield Type
67 68 69 60 62 63 R(A)	W(A)67ZA W68Z(A) (W)69Z(A) (W)60Z(A) 62Z 63Z R(A)-Z(A)	W(A)67ZZA W68ZZ(A) (W)69ZZ(A) (W)60ZZ(A) 62ZZ 63ZZ R(A)-ZZ(A)	FL67 FL68 FL69 FL60 FL62 FL63 FLR(A)	FL(A)W(A)67ZA FLW68Z(A) FL(W)69Z(A) FL(W)60Z(A) FL62Z FL63Z FLR(A)-Z(A)	FL(A)W(A)67ZZA FLW68ZZ(A) FL(W)69ZZ(A) FL(W)60ZZ(A) FL62ZZ FL63ZZ FLR(A)-ZZ(A)
RW	R(A)W-ZA	R(A)W-ZZA	FLRW	FLR(A)W-ZA	FLR(A)W-ZZA



1. PREFIX

No Symbol: High carbon chrome bearing steel (equivalent to AISI E52100)
 F: Martensitic stainless steel (equivalent to AISI 440C)
 N: Beryllium copper

2. SERIES

67, 68: Metric series
 69, 60: Metric series
 62, 63: Metric series
 R: Inch series
 W: Wider than standard width (sealed type)
 WA: Non-standard sizes
 RA: Wider than standard width of inch series (open and sealed types)
 FL: Flanged outer ring
 FLA: Flanged outer ring, provided non-standard flange dimensions

3. CAGE

No Symbol: Pressed steel cage
 J1: Pressed stainless steel cage
 T1: Phenolic resin cage
 T2: Nylon cage
 T3: Rulon machined cage
 V: Cageless type

4. SEAL OR SHIELD

No symbol: Open Type
 Z, ZZ: Steel shield(s)
 ZA, ZZA: Removable steel shield(s)
 ZA1, ZZA1: Removable stainless steel shield(s)
 Z1, ZZ1: Stainless steel shield(s)
 LB, LLB: Non-contact type rubber seal(s)
 LF, LLF: Non-contact rubber seal(s)
 LU, LLU: Contact type rubber seal(s)
 SA, SSA: Non-contact nylon seal(s)

5. INTERNAL CLEARANCE

No Symbol: Normal clearance
 C2: Clearance less than normal
 C3: Clearance greater than normal
 C4: Clearance greater than C3
 C2S: Low group of C2 clearance
 CNS: Low group of normal clearance
 CNM: Medium group of normal clearance
 CNL: High group of normal clearance
 C3S: Low group of C3 clearance
 C3M: Medium group of C3 clearance
 C3L: High group of C3

6. TOLERANCE

No Symbol: ISO class 0 (equivalent to ABEC 1)
 P6: ISO class 6 (equivalent to ABEC 3)
 P5: ISO class 5 (equivalent to ABEC 5)
 P4: ISO class 4 (equivalent to ABEC 7)
 P2: ISO class 2 (equivalent to ABEC 9)
 P5A: ISO class 5A
 P4A: ISO class 4A
 PS5: NTN PS class 5
 PS4: NTN PS class 4
 PX1: Special tolerance





7. PRELUBRICANT

1K: Kyodo Yushi Multemp PS No. 2
 2A: Shell Alvania 2
 1E: Exxon Andok C
 3E: Exxon Beacon 325
 6K: Klüber Isoflex Super LDS18
 5C: Chevron SRI2
 5K: Kyodo Yushi Multemp SRL
 1W: Anderson Oil Winsor Lube L245X (oil)

10. SPECIAL SPECIFICATION V1...Vn



Units: INCHES

MICRO BEARING (INCH SERIES)															
OPEN TYPE					DOUBLE SHIELD TYPE										
					 Flanged Outer Ring						 Flanged Outer Ring				
Bearing No.	Boundary Dimensions				Bearing No.	Flange Dimensions		Bearing No.	Width	Bearing No.	Flange Dimensions		Basic Load Ratings (lbs)		
	Bore	O.D.	Width	Minimum Chamfer		O.D.	Width				O.D.	Width	Dynamic C	Static C ₀	
R01	.0400	.1250	.0469	.003	—	—	—	—	—	—	—	—	22	6	
R0	.0469	.1562	.0625	.005	FLR0	.203	.013	RA0ZZA	.0937	FLRA0ZZA	.203	.031	36	10	
R1	.0550	.1875	.0781	.005	FLR1	.234	.023	RA1ZZA	.1094	FLRA1ZZA	.234	.031	42	13	
R1-4	.0781	.2500	.0937	.005	FLR1-4	.296	.023	RA1-4ZZA	.1406	FLRA1-4ZZA	.296	.031	63	20	
R133	.0937	.1875	.0625	.005	FLR133	.234	.018	RA133ZZA	.0937	FLRA133ZZA	.234	.031	28	9.5	
R1-5	.0937	.3125	.1094	.005	FLR1-5	.359	.023	RA1-5ZZA	.1406	FLRA1-5ZZA	.359	.031	96	34	
R144	.1250	.2500	.0937	.005	FLR144	.296	.023	RA144ZZA	.1094	FLRA144ZZA	.296	.031	64	22	
R2-5	.1250	.3125	.1094	.005	FLR2-5	.359	.023	RA2-5ZZA	.1406	FLRA2-5ZZA	.359	.031	126	40	
R2-6	.1250	.3750	.1094	.005	—	—	—	RA2-6ZZA	.1406	—	—	—	144	50	
R2	.1250	.3750	.1562	.012	FLR2	.440	.030	R2ZZA	.1562	FLR2ZZA	.440	.030	144	50	
RA2	.1250	.5000	.1719	.012	—	—	—	RA2ZZ	.1719	—	—	—	258	89	
R155	.1562	.3125	.1094	.005	FLR155	.359	.023	RA155ZZA	.1250	FLRA155ZZA	.359	.036	76	30	
R156	.1875	.3125	.1094	.005	FLR156	.359	.023	RA156ZZA	.1250	FLRA156ZZA	.359	.036	89	32	
R166	.1875	.3750	.1250	.005	FLR166	.422	.023	R166ZZA	.1250	FLRA166ZZA	.422	.031	160	60	
R3	.1875	.5000	.1562	.012	—	—	—	—	—	—	—	—	295	110	
RA3	.1875	.5000	.1960	.012	FLRA3	.565	.042	RA3ZZ	.1960	FLRA3ZZ	.565	.042	295	110	
R168	.2500	.3750	.1250	.005	FLR168	.422	.023	R168ZZA	.1250	FLAR168ZZA	.422	.036	60	31	
R188	.2500	.5000	.1250	.005	FLR188	.547	.023	RA188ZZA	.1875	FLRA188ZZA	.547	.045	186	84	
R4	.2500	.6250	.1960	.012	FLR4	.690	.042	R4ZZ	.1960	FLR4ZZ	.690	.042	335	139	
EE2	.2500	.7500	.2188	.016	—	—	—	RA4ZZ	.2812	—	—	—	—	—	

Bearing numbers listed above are for bearings made of high carbon chrome bearing steel; bearings made of stainless steel (equivalent to AISI 440 C) are also available upon request, for which "F" should be prefixed to the bearing numbers.



Units: INCH



Open Type



Flanged Outer Ring

MICRO BEARING (INCH SERIES, WIDE INNER RING)

Bearing No.	Boundary Dimensions					Bearing No.	Flange Dimensions		Basic Load Ratings (lbs)	
	Bore	O.D.	Inner Ring Width	Outer Ring Width	Minimum Chamfer		O.D.	Width	Dynamic C	Static C ₀
RW0	.0469	.1562	.0937	.0625	.005	FLRW0	.203	.013	36	10
RW1	.0550	.1875	.1094	.0781	.005	FLRW1	.234	.023	42	13
RW1-4	.0781	.2500	.1250	.0937	.005	FLRW1-4	.296	.023	63	20
RW133	.0937	.1875	.0937	.0625	.005	FLRW133	.234	.018	28	9.5
RW1-5	.0937	.3125	.1406	.1094	.005	FLRW1-5	.359	.023	96	34
RW144	.1250	.2500	.1250	.0937	.005	FLRW144	.296	.023	64	22
RW2-5	.1250	.3125	.1406	.1094	.005	FLRW2-5	.359	.023	126	41
RW2-6	.1250	.3750	.1406	.1094	.005	FLRW2-6	.422	.023	144	51
RW2	.1250	.3750	.1875	.1562	.012	FLRW2	.440	.030	144	51
RW155	.1562	.3125	.1406	.1094	.005	FLRW155	.359	.023	76	30
RW156	.1875	.3125	.1406	.1094	.005	FLRW156	.359	.023	89	32
RW166	.1875	.3750	.1562	.1250	.005	FLRW166	.422	.023	160	60
RW168	.2500	.3750	.1562	.1250	.005	FLRW168	.422	.023	60	31
RW188	.2500	.5000	.1562	.1250	.005	FLRW188	.547	.023	186	84



Double Shielded



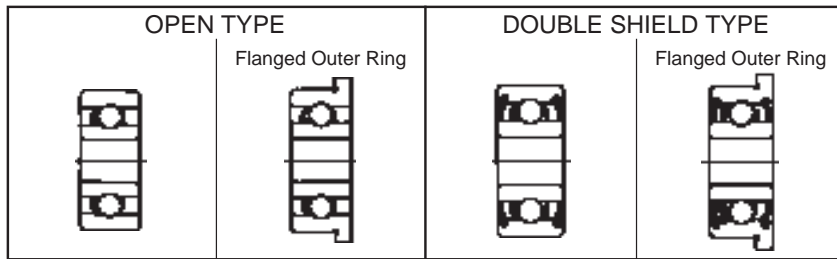
Flanged, Double Shielded

MICRO BEARING (INCH SERIES, WIDE OUTER RING, DOUBLE SHIELDED)

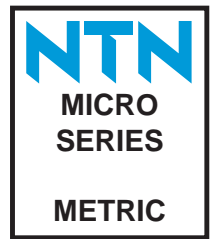
Bearing No.	Boundary Dimensions		Bearing No.	Flange Dimensions		Basic Load Ratings (lbs)	
	Inner Ring Width	Outer Ring Width		O.D.	Width	Dynamic C	Static C ₀
RAW0ZZA	.1250	.0937	FLRAW0ZZA	.203	.031	36	10
RAW1ZZA	.1406	.1094	FLRAW1ZZA	.234	.031	42	13
RAW1-4ZZA	.1719	.1406	FLRAW1-4ZZA	.296	.031	63	20
RAW133ZZA	.1250	.0937	FLRAW133ZZA	.234	.031	28	9.5
RAW1-5ZZA	.1719	.1406	FLRAW1-5ZZA	.359	.031	96	34
RAW144ZZA	.1406	.1094	FLRAW144ZZA	.296	.031	64	22
RAW2-5ZZA	.1719	.1406	FLRAW2-5ZZA	.359	.031	126	41
RAW2-6ZZA	.1719	.1406	FLRAW2-6ZZA	.422	.031	144	51
RW2ZZA	.1875	.1562	FLRW2ZZA	.440	.030	144	51
RAW155ZZA	.1562	.1250	FLRAW155ZZA	.359	.036	76	30
RAW156ZZA	.1562	.1250	FLRAW156ZZA	.359	.036	89	32
RW166ZZA	.1562	.1250	FLRAW166ZZA	.422	.031	160	60
RW168ZZA	.1562	.1250	FLRAW168ZZA	.422	.036	60	31
RAW188ZZA	.2188	.1875	FLRAW188ZZA	.547	.045	186	84

① Bore and Outer Diameter (O.D.) are the same as for RW and FLRW in the upper table.

Bearing numbers listed above are for bearings made of high carbon chrome bearing steel; bearings made of stainless steel (equivalent to AISI 440 C) are also available upon request, for which "F" should be prefixed to the bearing numbers.

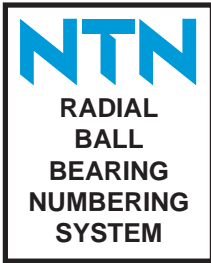


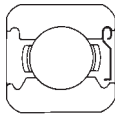
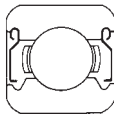
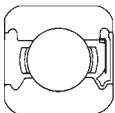
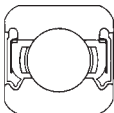
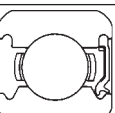
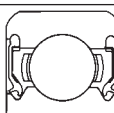
Units: Millimeters

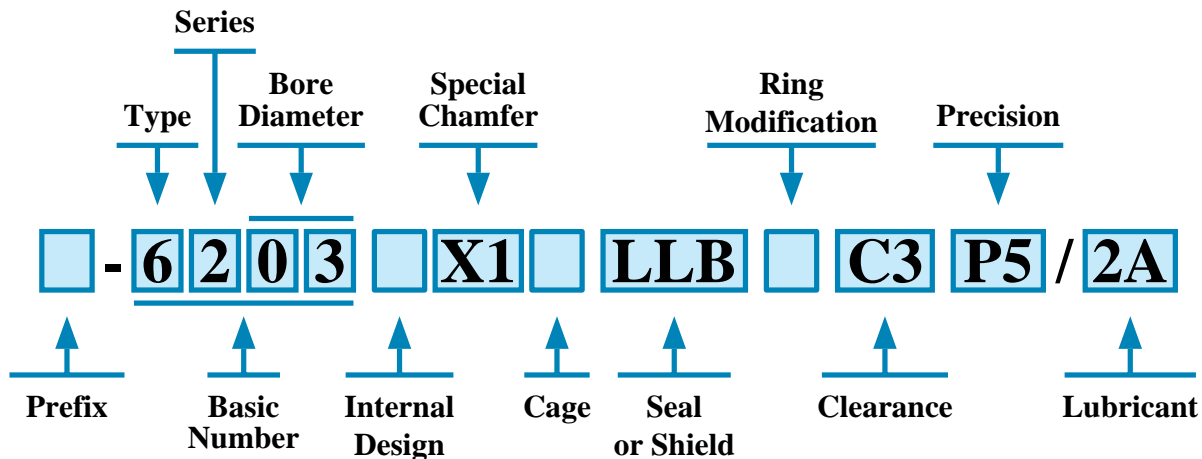


MICRO BEARING (METRIC SERIES)														
Bearing No.	Boundary Dimensions				Bearing No.	Flange Dimensions		Bearing No.	Width	Bearing No.	Flange Dimensions		Basic Load Ratings (lbs)	
	Bore	O.D.	Width	Minimum Chamfer		O.D.	Width				O.D.	Width	Dynamic C	Static C ₀
681	1.0	3	1.0	.08	FL681	3.8	.3	W681ZZA	1.5	FLW681ZZA	3.8	.45	18	5
691	1.0	4	1.6	.10	FL691	5.0	.5	W691ZZA	2.3	FLW691ZZA	5.0	.60	35	9.5
68/1.5	1.5	4	1.2	.10	FL68/1.5	5.0	.4	W68/1.5ZZA	2.0	FLW68/1.5ZZA	5.0	.60	23	6
69/1.5	1.5	5	2.0	.15	FL69/1.5	6.5	.6	W69/1.5ZZA	2.6	FLW69/1.5ZZA	6.5	.80	53	15
60/1.5	1.5	6	2.5	.15	FL60/1.5	7.5	.6	W60/1.5ZZA	3.0	FLW60/1.5ZZA	7.5	.80	62	19
672	2.0	4	1.2	.05	—	—	—	W672ZZA	2.0	—	—	—	23	8.5
682	2.0	5	1.5	.10	FL682	6.1	.5	W682ZZA	2.3	FLW682ZZA	6.1	.60	38	11
692	2.0	6	2.3	.15	FL692	7.5	.6	W692ZZA	3.0	FLW692ZZA	7.5	.80	63	20
602	2.0	7	2.8	.15	FL602	8.5	.7	W602ZZA	3.5	FLW602ZZA	8.5	.90	86	28
67/2.5	2.5	5	1.5	.08	—	—	—	W67/2.5ZZA	2.3	—	—	—	34	13
68/2.5	2.5	6	1.8	.15	FL68/2.5	7.1	.5	W68/2.5ZZA	2.6	FLW68/2.5ZZA	7.1	.80	47	16
69/2.5	2.5	7	2.5	.15	FL69/2.5	8.5	.7	W69/2.5ZZA	3.5	FLW69/2.5ZZA	8.5	.90	64	22
60/2.5	2.5	8	2.8	.15	FL60/2.5	9.5	.7	W60/2.5ZZA	4.0	FLW60/2.5ZZA	9.5	.90	123	39
673	3.0	6	2.0	.08	FL673	7.2	.6	WA673ZZA	2.5	FLWA673ZZA	7.2	.60	54	21
683	3.0	7	2.0	.15	FL683	8.1	.5	W683ZZA	3.0	FLW683ZZA	8.1	.80	87	29
693	3.0	8	3.0	.15	FL693	9.5	.7	W693ZZA	4.0	FLW693ZZA	9.5	.90	126	40
603	3.0	9	3.0	.15	FL603	10.5	.7	W603ZZA	5.0	FLW603ZZA	10.5	1.00	142	49
623	3.0	10	4.0	.15	FL623	11.5	1.0	623ZZA	4.0	FL623ZZA	11.5	1.00	144	50
674	4.0	7	2.0	.08	FL674	8.2	.6	WA674ZZA	2.5	FLWA674ZZA	8.2	.60	61	26
684	4.0	9	2.5	.15	FL684	10.3	.6	W684ZZA	4.0	FLW684ZZA	10.3	1.00	144	50
694	4.0	11	4.0	.15	FL694	12.5	1.0	694ZZA	4.0	FL694ZZA	12.5	1.00	161	62
604	4.0	12	4.0	.20	FL604	13.5	1.0	604ZZ	4.0	FL604ZZ	13.5	1.00	218	80
624	4.0	13	5.0	.20	FL624	15.0	1.0	624ZZ	5.0	FL624ZZ	15.0	1.00	295	110
634	4.0	16	5.0	.30	—	—	—	634ZZ	5.0	—	—	—	395	153
675	5.0	8	2.0	.08	FL675	9.2	.6	WA675ZZA	2.5	FLWA675ZZA	9.2	.60	66	32
685	5.0	11	3.0	.15	FL685	12.5	.8	W685ZZA	5.0	FLW685ZZA	12.5	1.00	161	63
695	5.0	13	4.0	.20	FL695	15.0	1.0	695ZZA	4.0	FL695ZZA	15.0	1.00	242	97
605	5.0	14	5.0	.20	FL605	16.0	1.0	605ZZ	5.0	FL605ZZ	16.0	1.00	299	114
625	5.0	16	5.0	.30	FL625	18.0	1.0	625ZZ	5.0	FL625ZZ	18.0	1.00	395	153
635	5.0	19	6.0	.30	—	—	—	635ZZ	6.0	—	—	—	525	199
676	6.0	10	2.5	.10	FL676	11.2	.6	WA676ZZA	3.0	FLWA676ZZA	11.2	.60	119	54
686	6.0	13	3.5	.15	FL686	15.0	1.0	W686ZZA	5.0	FLW686ZZA	15.0	1.10	243	99
696	6.0	15	5.0	.20	FL696	17.0	1.2	696ZZ	5.0	FL696ZZ	17.0	1.20	305	119
606	6.0	17	6.0	.30	FL606	19.0	1.2	606ZZ	6.0	FL606ZZ	19.0	1.20	495	195
626	6.0	19	6.0	.30	FL626	22.0	1.5	626ZZ	6.0	FL626ZZ	22.0	1.50	525	199
677	7.0	11	2.5	.10	FL677	12.2	.6	WA677ZZA	3.0	FLWA677ZZA	12.2	.60	124	60
687	7.0	14	3.5	.15	FL687	16.0	1.0	W687ZZA	5.0	FLW687ZZA	16.0	1.10	264	115
697	7.0	17	5.0	.30	FL697	19.0	1.2	697ZZ	5.0	FL697ZZ	19.0	1.20	360	160
607	7.0	19	6.0	.30	—	—	—	607ZZ	6.0	—	—	—	505	205
627	7.0	22	7.0	.30	—	—	—	627ZZ	7.0	—	—	—	750	315
678	8.0	12	2.5	.10	FL678	13.2	.6	W678ZZA	3.5	FLAW678ZZA	13.6	.80	129	67
688	8.0	16	4.0	.20	FL688	18.0	1.0	W688ZZ	5.0	FLW688ZZ	18.0	1.10	283	131
698	8.0	19	6.0	.30	FL698	22.0	1.5	698ZZ	6.0	FL698ZZ	22.0	1.50	445	194
608	8.0	22	7.0	.30	FL608	25.0	1.5	608ZZ	7.0	FL608ZZ	25.0	1.50	750	315
628	8.0	24	8.0	.30	—	—	—	628ZZ	8.0	—	—	—	900	355
679	9.0	14	3.0	.10	—	—	—	W679ZZA	4.5	—	—	—	207	105
689	9.0	17	4.0	.20	FL689	19.0	1.0	W689ZZ	5.0	FLW689ZZ	19.0	1.10	390	184
699	9.0	20	6.0	.30	—	—	—	699ZZ	6.0	—	—	—	560	245
609	9.0	24	7.0	.30	—	—	—	609ZZ	7.0	—	—	—	765	325
629	9.0	26	8.0	.60	—	—	—	629ZZ	8.0	—	—	—	1030	440

Bearing numbers listed above are for bearings made of high carbon chrome bearing steel; bearings made of stainless steel (equivalent to AISI 440 C) are also available upon request, for which "F" should be prefixed to the bearing numbers.



SEAL STRUCTURE AND TYPE DESIGNATION	FEATURES
  Z ZZ	<ul style="list-style-type: none"> The sealed V-slot around the inner ring creates an air and/or grease pocket which increases the labyrinth effect. This is a non-contact, low-friction torque type bearing assembly, which can be used effectively for general protection.
  LB LLB	<ul style="list-style-type: none"> Both sides of the seal edge have a circular concaved surface which creates several narrow-wide gaps along the V-shaped groove of the inner ring's sealed surface. The unique design ensures a perfect labyrinth effect. This non-contact, low friction bearing assembly requires very little torque and is highly resistant to dust build-up.
  LU LLU	<ul style="list-style-type: none"> The seal edge forms a double-lip. The inner lip touches the V-slot side of the inner ring's seal surface. There is a slight gap between the inner ring and the outer lip which produces the labyrinth effect. Even if friction causes the inner lip to wear, the outer lip constricts around the inner ring to compensate, and thus constantly preserving the perfect sealing effect. Due to the fact that it is a contact type seal bearing, the torque will be a little greater but the seal will provide the optimum protection from dust penetration.



1. PREFIX

- TS2: Heat stabilization for up to 320° F (160° C)
- TS3: Heat stabilization for up to 390° F (200° C)
- TS4: Heat stabilization for up to 480° F (250° C)

2. TYPE

- 6: Single row deep groove ball bearings
- 8, WC8: Single row deep groove ball bearings
- BL: Maximum capacity
- DE & DF: Special double row ball bearings
- SC & SX: Special single row ball bearings
- R: Inch series

3. INTERNAL DESIGN

- A: Internal redesign, from A onward
- U: Universal seal groove for open bearings

4. CHAMFER

- Xn: Special chamfer, from 1 onward (X1, X2 . . .)

5. CAGE

- No Symbol: Pressed steel cage
- J: Pressed steel cage
- T1: Phenolic cage
- T2: Nylon cage

6. SEAL OR SHIELD

- No Symbol: Open Type
- LB, LLB: Non-contact rubber seal
- LU, LLU: Double-lip contact rubber seal
- LH, LLH: Light contact rubber seal
- LUA, LLUA: Polyacrylic rubber seal
- LUA1, LLUA1: Fluorocarbon rubber seal
- Z, ZZ: Shield
- Z1, ZZ1: Stainless steel shield
- ZA, ZZA: Removable shield

7. RING MODIFICATION

- N: Snap ring groove on outer ring, but without snap ring
- NR: Snap ring groove on outer ring, snap ring included
- /X.XX: Special bore, XX.XX in mm; Ex. 5/16" bore, /7.938
- /XX.X: Special O.D., size XX.X in mm

8. INTERNAL CLEARANCE

- C1: Radial clearance less than C2
- C2: Radial clearance less than normal
- C3: Radial clearance greater than normal
- C4: Radial clearance greater than C3
- C5: Radial clearance greater than C4
- CSXX: Special radial clearance; XX is mean value in 0.001 mm units

9. TOLERANCE

- P6: ISO class 6 (equivalent to ABEC 3)
- P5: ISO class 5 (equivalent to ABEC 5)
- P4: ISO class 4 (equivalent to ABEC 7)
- PXn: Special tolerance, from 1 onward (PX1, PX2 . . .)
- Vn: Special requirement, from 1 onward (V1, V2 . . .)

10. PRELUBRICANT (Typical)

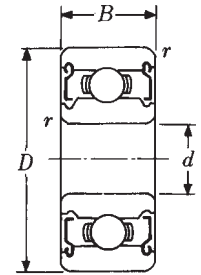
- /1E: Exxon Andok C grease
- /1W: Anderson Oil Winsor Lube L-245X, MIL-L-6085A
- /2A: Shell Alvania #2 grease, MIL-G-18709A
- /2E: Exxon Unirex N3
- /3A: Shell Oil Alvania #3 grease
- /3E: Exxon Beacon 325 grease
- /5C: Chevron SRI #2 grease, MIL-G-3545C
- /5S: Shell Aeroshell #7 grease, MIL-G-23827A
- /9B: Mobil 28, MIL-G-81322
- /LO14: Shell Dolium R

SINGLE ROW RADIAL BALL BEARINGS

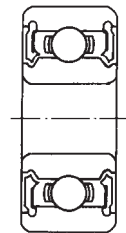
Units: INCHES



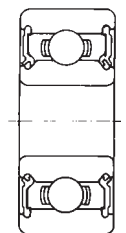
Bearing No.	Bore <i>d</i>	O.D. <i>D</i>	Width <i>B</i>	Fillet Radius (min.) <i>r</i>	Basic Load Ratings (lbs)		Weight (lbs) Open Type	Limiting Speed (rpm)	
					Dynamic <i>C</i>	Static <i>C_o</i>		Grease	Oil
RA3	.1875	.5000	.1960	.012	295	110	.006	41,000	48,000
R4	.2500	.6250	.1960	.012	335	139	.010	36,000	43,000
RA4	.2500	.7500	.2812	.016	525	199	.017	34,000	40,000
R6	.3750	.8750	.2812	.016	745	315	.029	31,000	37,000
R8	.5000	1.1250	.3125	.016	1,150	540	.040	26,000	30,000
R10	.6250	1.3750	.3437	.031	1,350	735	.067	20,000	24,000
R12	.7500	1.6250	.4375	.031	1,780	1,000	.100	18,000	21,000
R14	.8750	1.8750	.5000	.031	2,270	1,300	.159	15,000	18,000
R16	1.0000	2.0000	.5000	.031	2,260	1,340	.178	14,000	16,000
R18	1.1250	2.1250	.5000	.031	2,970	1,860	.194	13,000	15,000
R20	1.2500	2.2500	.5000	.031	2,650	1,810	.200	12,000	14,000



**Double Shielded
ZZ**



**Double Sealed
LLB
(Non-contact Type)**



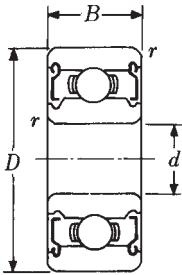
**Double Sealed
LLU
(Contact Type)**



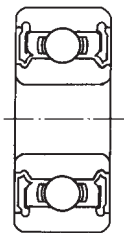
Units: INCHES
Millimeters

SINGLE ROW RADIAL BALL BEARINGS

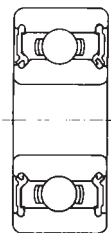
Bearing No.	Bore <i>d</i>	O.D. <i>D</i>	Width <i>B</i>	Fillet Radius <i>r</i>	Basic Load Ratings (lbs)		Weight (lbs)	Limiting Speed		
					Dynamic <i>C</i>	Static <i>C_o</i>		Grease	Oil	LLU
605	.1969 5	.5512 14	.1969 5	.016 4	299	114	.008	39,000	46,000	—
606	.2362 6	.6693 17	.2362 6	.020 5	495	195	.013	35,000	42,000	—
607	.2756 7	.7480 19	.2362 6	.020 5	505	205	.018	34,000	40,000	28,000
608	.3150 8	.8661 22	.2756 7	.020 5	750	315	.026	32,000	37,000	23,000
609	.3543 9	.9449 24	.2756 7	.020 5	765	325	.031	31,000	36,000	22,000
623	.1181 3	.3937 10	.1575 4	.012 3	144	50	.004	50,000	58,000	—
624	.1575 4	.5118 13	.1969 5	.016 4	295	110	.007	42,000	49,000	—
625	.1969 5	.6299 16	.1969 5	.020 5	395	153	.011	37,000	44,000	—
626	.2362 6	.7480 19	.2362 6	.020 5	525	199	.018	34,000	40,000	30,000
627	.2756 7	.8661 22	.2756 7	.020 5	750	315	.029	32,000	37,000	23,000
628	.3150 8	.9449 24	.3150 8	.020 5	900	355	.037	31,000	36,000	24,000
629	.3543 9	1.0236 26	.3150 8	.039 1	1,030	440	.044	30,000	35,000	21,000
634	.1575 4	.6299 16	.1969 5	.020 5	395	153	.011	37,000	44,000	—
635	.1969 5	.7480 19	.2362 6	.020 5	525	199	.018	34,000	40,000	30,000



Double Shielded
ZZ



Double Sealed
LLB
(Non-contact Type)



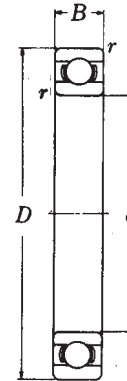
Double Sealed
LLU
(Contact Type)

SINGLE ROW RADIAL BALL BEARINGS

Units: **INCHES**
Millimeters

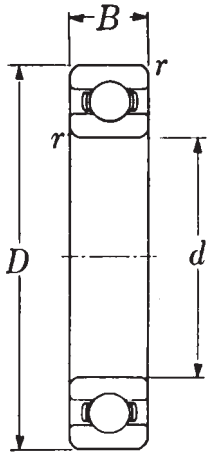


Bearing No.	Bore	O.D.	Width	Fillet Radius	Basic Load Ratings (lbs)		Weight (lbs)	Limiting Speed (RPM)	
	<i>d</i>	<i>D</i>	<i>B</i>	<i>r</i>	Dynamic <i>C</i>	Static <i>C₀</i>		Grease	Oil
6900	.3937 10	.8661 22	.2362 6	.020 .5	605	285	.020	30,000	36,000
6901	.4724 12	.9449 24	.2362 6	.020 .5	650	330	.024	27,000	32,000
6902B	.5906 15	1.1024 28	.2756 7	.020 .5	920	460	.035	24,000	28,000
6903	.6693 17	1.1811 30	.2756 7	.020 .5	1,050	580	.040	22,000	26,000
6904	.7874 20	1.4567 37	.3543 9	.020 .5	1,430	825	.079	19,000	23,000
6905	.9843 25	1.6535 42	.3543 9	.020 .5	1,580	1,020	.093	16,000	19,000
6906	1.1811 30	1.8504 47	.3543 9	.020 .5	1,630	1,130	.106	14,000	17,000
6907A	1.3780 35	2.1654 55	.3937 10	.039 1.0	2,510	1,670	.163	12,000	15,000
6908A	1.5748 40	2.4409 62	.4724 12	.039 1.0	3,250	2,300	.243	11,000	13,000
6909A	1.7717 45	2.6772 68	.4724 12	.039 1.0	3,400	2,530	.282	9,800	12,000
6910B	1.9685 50	2.8346 72	.4724 12	.039 1.0	3,500	2,750	.291	8,900	11,000
6911	2.1654 55	3.1496 80	.5118 13	.059 1.5	3,600	2,980	.397	8,200	9,600
6912	2.3622 60	3.3465 85	.5118 13	.059 1.5	3,700	3,200	.425	7,600	8,900
6913	2.5591 65	3.5433 90	.5118 13	.059 1.5	3,900	3,600	.454	7,000	8,200
6914	2.7559 70	3.9370 100	.6299 16	.059 1.5	5,350	4,750	.736	6,500	7,700
6915	2.9528 75	4.1339 105	.6299 16	.059 1.5	5,500	5,100	.778	6,100	7,200
6916	3.1496 80	4.3307 110	.6299 16	.059 1.5	5,600	5,400	.822	5,700	6,700
6917	3.3465 85	4.7244 120	.7087 18	.079 2.0	7,200	6,650	1.18	5,400	6,300
6918	3.5433 90	4.9213 125	.7087 18	.079 2.0	7,400	7,100	1.22	5,100	6,000
6919	3.7402 95	5.1181 130	.7087 18	.079 2.0	7,550	7,550	1.28	4,800	5,700
6920	3.9370 100	5.5118 140	.7874 20	.079 2.0	9,250	8,900	1.73	4,500	5,300
6921	4.1339 105	5.7087 145	.7874 20	.079 2.0	9,550	9,450	1.80	4,300	5,100
6922	4.3307 110	5.9055 150	.7874 20	.079 2.0	9,800	10,000	1.87	4,100	4,800
6924	4.7244 120	6.4961 165	.8661 22	.079 2.0	11,900	12,200	2.54	3,800	4,400





Units: **INCHES**
Millimeters



Open Type
60



Single
Shielded
60Z



Double
Shielded
60ZZ



Double
Sealed
60LLU



Double
Sealed
60LLB

(Contact Type) (Non-Contact Type)

SINGLE ROW RADIAL BALL BEARINGS

Bearing No.	Bore <i>d</i>	O.D. <i>D</i>	Width <i>B</i>	Fillet Radii		Basic Load Ratings (lbs)		Weight (lbs)
				<i>r</i>	<i>r₁</i>	Dynamic <i>C</i>	Static <i>C₀</i>	
6000	.3937 10	1.0236 26	.3150 8	.020 .5	— —	1,030	440	.042
01	.4724 12	1.1024 28	.3150 8	.020 .5	— —	1,150	540	.049
02	.5906 15	1.2598 32	.3543 9	.020 .5	— —	1,260	635	.066
6003	.6693 17	1.3780 35	.3937 10	.020 .5	— —	1,530	755	.086
04	.7874 20	1.6535 42	.4724 12	.039 1.0	.020 .5	2,110	1,140	.152
/22	.8661 22	1.7323 44	.4724 12	.039 1.0	.020 .5	2,110	1,150	.163
05	.9843 25	1.8504 47	.4724 12	.039 1.0	.020 .5	2,260	1,320	.176
/28	1.1024 28	2.0472 52	.4724 12	.039 1.0	.020 .5	2,800	1,660	.216
6006	1.1811 30	2.1654 55	.5118 13	.059 1.5	.020 .5	2,970	1,860	.256
/32A	1.2598 32	2.2835 58	.5118 13	.039 1.0	.020 .5	3,400	2,060	.284
07	1.3780 35	2.4409 62	.5512 14	.059 1.5	.020 .5	3,600	2,310	.342
08	1.5748 40	2.6772 68	.5906 15	.059 1.5	.020 .5	3,150	2,590	.423
6009	1.7717 45	2.9528 75	.6299 16	.059 1.5	.020 .5	4,700	3,400	.540
10	1.9685 50	3.1496 80	.6299 16	.059 1.5	.020 .5	4,900	3,750	.575
11	2.1654 55	3.5433 90	.7087 18	.079 2.0	.020 .5	6,350	4,800	.849
6012	2.3622 60	3.7402 95	.7087 18	.079 2.0	.020 .5	6,600	5,200	.915
13	2.5591 65	3.9370 100	.7087 18	.079 2.0	.020 .5	6,850	5,650	.959
14	2.7559 70	4.3307 110	.7874 20	.079 2.0	.020 .5	8,550	6,950	1.33
6015	2.9528 75	4.5276 115	.7874 20	.079 2.0	.020 .5	8,900	7,550	1.41
16	3.1496 80	4.9213 125	.8661 22	.079 2.0	.020 .5	10,700	8,950	1.87
17	3.3465 85	5.1181 130	.8661 22	.079 2.0	.020 .5	11,100	9,700	1.96
6018	3.5433 90	5.5118 140	.9449 24	.098 2.5	.020 .5	13,100	11,200	2.56
19	3.7402 95	5.7087 145	.9449 24	.098 2.5	.020 .5	13,600	12,100	2.67
20	3.9370 100	5.9055 150	.9449 24	.098 2.5	.020 .5	13,500	12,200	2.76
6021	4.1339 105	6.2992 160	1.0236 26	.118 3.0	.020 .5	16,300	14,800	3.51
22	4.3307 110	6.6929 170	1.1024 28	.118 3.0	.020 .5	18,400	16,400	4.32
24	4.7244 120	7.0866 180	1.1024 28	.118 3.0	— —	19,100	17,800	4.56
6026	5.1181 130	7.8740 200	1.2992 33	.118 3.0	— —	23,900	22,700	6.97
28	5.5118 140	8.2677 210	1.2992 33	.118 3.0	— —	24,700	24,400	7.39
30	5.9055 150	8.8583 225	1.3780 35	.138 3.5	— —	28,300	28,300	8.99
6032	6.2992 160	9.4488 240	1.4961 38	.138 3.5	— —	32,000	32,500	11.1
34	6.6929 170	10.2362 260	1.6535 42	.138 3.5	— —	38,000	38,500	17.5
36	7.0866 180	11.0236 280	1.8110 46	.138 3.5	— —	42,500	44,500	22.7
6038	7.4803 190	11.4173 290	1.8110 46	.138 3.5	— —	44,000	48,500	23.8
40	7.8740 200	12.2047 310	2.0079 51	.138 3.5	— —	49,000	54,500	30.6

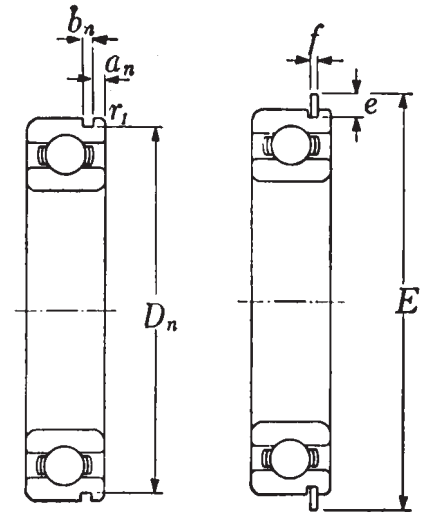
Continued on Page 22

SINGLE ROW RADIAL BALL BEARINGS

Units: **INCHES**
Millimeters

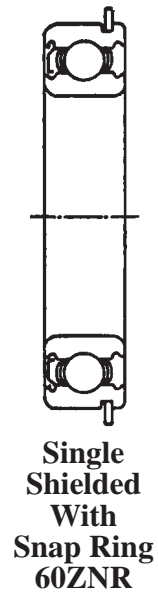


Snap Ring Groove Dimensions			Snap Ring Dimensions			Limiting Speed (RPM)			Bore Diameter No.
D_n (max)	a_n (max)	b_n (min)	E (max)	f (max)	e	Grease	Oil	LU, LLU	
—	—	—	—	—	—	29,000	34,000	21,000	00
—	—	—	—	—	—	26,000	30,000	18,000	01
—	—	—	—	—	—	22,000	26,000	15,000	02
—	—	—	—	—	—	20,000	24,000	14,000	03
1.565	.081	.065	1.82	.042	.125	18,000	21,000	11,000	04
39.75	2.06	1.65	46.3	1.07	3.17	17,000	20,000	10,000	/22
1.644	.081	.053	1.90	.044	.129	15,000	18,000	9,400	05
41.75	2.06	1.35	48.3	1.12	3.28	14,000	16,000	8,400	/28
1.756	.081	.065	2.07	.042	.156	13,000	15,000	7,700	06
44.60	2.06	1.65	52.7	1.07	3.96	12,000	15,000	7,200	/32
1.958	.081	.053	2.28	.044	.161	12,000	14,000	6,800	07
49.73	2.06	1.35	57.9	1.12	4.09	10,000	12,000	6,100	08
2.071	.082	.065	2.39	.042	.156	9,200	11,000	5,400	09
52.60	2.08	1.65	60.7	1.07	3.96	8,400	9,800	5,000	10
2.189	.082	.053	2.51	.044	.159	8,400	9,800	5,000	11
55.60	2.08	1.35	63.7	1.12	4.05	7,700	9,000	4,500	12
2.347	.082	.087	2.67	.065	.156	7,000	8,300	4,100	13
59.61	2.08	2.21	67.7	1.65	3.96	6,500	7,700	3,900	14
2.552	.098	.087	2.94	.065	.188	6,100	7,100	3,600	15
64.82	2.49	2.21	74.6	1.65	4.78	5,700	6,700	3,300	16
2.828	.098	.087	3.21	.065	.188	5,300	6,200	3,100	17
71.83	2.49	2.21	81.6	1.65	4.78	5,000	5,900	2,900	18
3.024	.098	.087	3.41	.065	.188	4,700	5,600	2,800	19
76.81	2.49	2.21	86.6	1.65	4.78	4,500	5,300	2,600	20
3.417	.113	.118	3.80	.095	.188	4,200	5,000	2,600	21
86.79	2.87	3.00	96.5	2.41	4.78	4,000	4,700	2,400	22
3.615	.113	.118	4.00	.095	.188	3,800	4,500	2,300	23
91.82	2.87	3.00	101.6	2.41	4.78	3,500	4,100	2,100	24
3.811	.113	.118	4.19	.095	.188	3,200	3,800	1,900	26
96.80	2.87	3.00	106.5	2.41	4.78	3,000	3,500	1,800	28
4.205	.113	.118	4.59	.095	.188	2,800	3,200	1,700	30
106.81	2.87	3.00	116.6	2.41	4.78	2,600	3,000	1,600	32
4.402	.113	.118	4.79	.095	.188	2,400	2,800	—	34
111.81	2.87	3.00	121.6	2.41	4.78	2,300	2,700	—	36
4.733	.113	.134	5.30	.109	.281	2,100	2,500	—	38
120.22	2.87	3.40	134.7	2.77	7.14	2,000	2,400	—	40
4.930	.113	.134	5.50	.109	.281	—	—	—	—
125.22	2.87	3.40	139.7	2.77	7.14	—	—	—	—
5.324	.146	.134	5.89	.109	.281	—	—	—	—
135.23	3.71	3.40	149.7	2.77	7.14	—	—	—	—
5.521	.146	.134	6.09	.109	.281	—	—	—	—
140.23	3.71	3.40	154.7	2.77	7.14	—	—	—	—
5.718	.146	.134	6.29	.109	.281	—	—	—	—
145.24	3.71	3.40	159.7	2.77	7.14	—	—	—	—
6.111	.146	.134	6.68	.109	.281	—	—	—	—
155.22	3.71	3.40	169.7	2.77	7.14	—	—	—	—
6.443	.146	.150	7.20	.120	.375	—	—	—	—
163.65	3.71	3.81	182.9	3.05	9.53	—	—	—	—
—	—	—	—	—	—	3,500	4,100	2,100	24
—	—	—	—	—	—	3,200	3,800	1,900	26
—	—	—	—	—	—	3,000	3,500	1,800	28
—	—	—	—	—	—	2,800	3,200	1,700	30
—	—	—	—	—	—	2,600	3,000	1,600	32
—	—	—	—	—	—	2,400	2,800	—	34
—	—	—	—	—	—	2,300	2,700	—	36
—	—	—	—	—	—	2,100	2,500	—	38
—	—	—	—	—	—	2,000	2,400	—	40



With Snap Ring Groove
60N

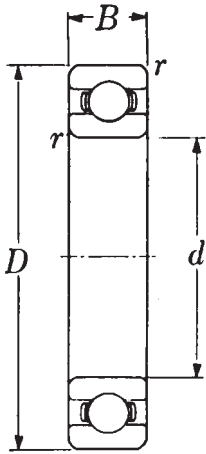
With Snap Ring
60NR



Continued on Page 23



Units: **INCHES**
Millimeters



Open Type
60

SINGLE ROW RADIAL BALL BEARINGS

Bearing No.	Bore <i>d</i>	O.D. <i>D</i>	Width <i>B</i>	Fillet Radii		Basic Load Ratings (lbs)		Weight (lbs)
				<i>r</i>	<i>r₁</i>	Dynamic <i>C</i>	Static <i>C₀</i>	
6044	8.66 220	13.39 340	2.205 56	.1181 3	—	54,500	65,000	34.6
6048	9.45 240	14.17 360	1.102 28	.1181 3	—	56,000	70,000	37.0
6052	10.24 260	15.75 400	2.559 65	.1575 4	—	65,500	84,500	55.1
6056	11.02 280	16.54 420	2.559 65	.1575 4	—	73,000	95,000	68.3
6060	11.81 300	18.11 460	2.913 74	.1575 4	—	80,000	108,000	96.6
6064	12.60 320	18.90 480	2.913 74	.1575 4	—	83,500	119,000	102
6068	13.39 340	20.47 520	3.228 82	.1969 5	—	94,000	137,000	136
6072	14.17 360	21.26 540	3.228 82	.1969 5	—	98,500	150,000	143
6076	14.96 380	22.05 560	3.228 82	.1969 5	—	103,000	163,000	149
6080	15.75 400	23.62 600	3.543 90	.1969 5	—	114,000	185,000	193
6084	16.54 420	24.41 620	3.543 90	.1969 5	—	119,000	201,000	201

SINGLE ROW RADIAL BALL BEARINGS

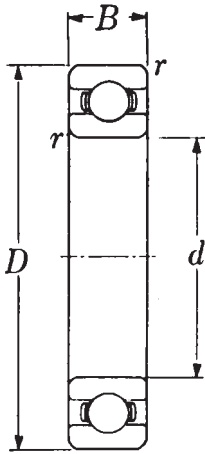
Units: **INCHES**
Millimeters



Snap Ring Groove Dimensions			Snap Ring Dimensions			Limiting Speed (RPM)			Bore Diameter No.
$D_n (max)$	$a_n (max)$	$b_n (min)$	$E (max)$	$f (max)$	e	<i>Grease</i>	<i>Oil</i>	<i>LU, LLU</i>	
—	—	—	—	—	—	1,800	2,200	—	44
—	—	—	—	—	—	1,700	2,000	—	48
—	—	—	—	—	—	1,500	1,800	—	52
—	—	—	—	—	—	1,400	1,600	—	56
—	—	—	—	—	—	1,300	1,500	—	60
—	—	—	—	—	—	1,200	1,400	—	64
—	—	—	—	—	—	1,100	1,300	—	68
—	—	—	—	—	—	1,100	1,200	—	72
—	—	—	—	—	—	990	1,200	—	76
—	—	—	—	—	—	930	1,100	—	80
—	—	—	—	—	—	880	1,000	—	84



Units: **INCHES**
Millimeters



Open Type
62



Single Shielded
62Z



Double Shielded
62ZZ



Double Sealed
62LLU



Double Sealed
62LLB

(Contact Type) (Non-Contact Type)

SINGLE ROW RADIAL BALL BEARINGS

Bearing No.	Bore <i>d</i>	O.D. <i>D</i>	Width <i>B</i>	Fillet Radii		Basic Load Ratings (lbs)		Weight (lbs)
				<i>r</i>	<i>r₁</i>	Dynamic <i>C</i>	Static <i>C₀</i>	
6200	.3937	1.1811	.3543	.039	.020	1,150	540	.071
01	.4724	1.2598	.3937	.039	.020	1,370	615	.082
01/12.69	.4996	1.2598	.3937	.039	.020	1,370	615	.082
01/12.695	.4998	1.2598	.3937	.039	.020	1,370	615	.082
01/12.7	.5000	1.2598	.3937	.039	.020	1,370	615	.082
01/13	.5118	1.2598	.3937	.039	.020	1,370	615	.082
6202	.5906	1.3780	.4331	.039	.020	1,740	805	.099
02/12.71	.5004	1.3780	.4331	.039	.020	1,740	805	.099
02/15.875	.6250	1.3780	.4331	.039	.020	1,740	805	.099
02/16	.6299	1.3780	.4331	.039	.020	1,740	805	.099
6203	.6693	1.5748	.4724	.039	.020	2,160	1,030	.143
03/12.7	.5000	1.5748	.4724	.039	.020	2,160	1,030	.143
03/15.875	.6250	1.5748	.4724	.039	.020	2,160	1,030	.143
03/16	.6299	1.5748	.4724	.039	.020	2,160	1,030	.143
03/19.05	.7500	1.5748	.4724	.039	.020	2,160	1,030	.143
6204	.7874	1.8504	.5512	.059	.020	2,890	1,500	.234
/22	.8661	1.9685	.5512	.059	.020	2,900	1,530	.258
6205	.9843	2.0472	.5906	.059	.020	3,150	1,770	.282
05/25.4	1.0000	2.0472	.5906	.059	.020	3,150	1,770	.282
/28	1.1024	2.2835	.6299	.059	.020	4,000	2,190	.377
06	1.1811	2.4409	.6299	.059	.020	4,400	2,540	.439
62/32	1.2598	2.5591	.6693	.059	.020	4,650	2,610	.498
07	1.3780	2.8346	.6693	.079	.020	5,750	3,450	.635
08	1.5748	3.1496	.7087	.079	.020	6,550	4,000	.807
6209	1.7717	3.3465	.7480	.079	.020	7,350	4,600	.897
10	1.9685	3.5433	.7874	.079	.020	7,900	5,200	1.02
11	2.1654	3.9370	.8268	.098	.020	9,750	6,550	1.34
6212	2.3622	4.3307	.8661	.098	.020	11,800	8,150	1.73
13	2.5591	4.7244	.9055	.098	.020	12,900	9,000	2.18
14	2.7559	4.9213	.9449	.098	.020	14,000	9,900	2.36
6215	2.9528	5.1181	.9843	.098	.020	14,900	11,100	2.60
16	3.1496	5.5118	1.0236	.118	.020	16,500	11,900	3.09
17	3.3465	5.9055	1.1024	.118	.020	18,700	14,300	3.95
6218	3.5433	6.2992	1.1811	.118	.020	21,600	16,100	4.74
19	3.7402	6.6929	1.2598	.138	.020	24,500	18,400	5.78
20	3.9370	7.0866	1.3386	.138	.020	27,500	20,900	6.92

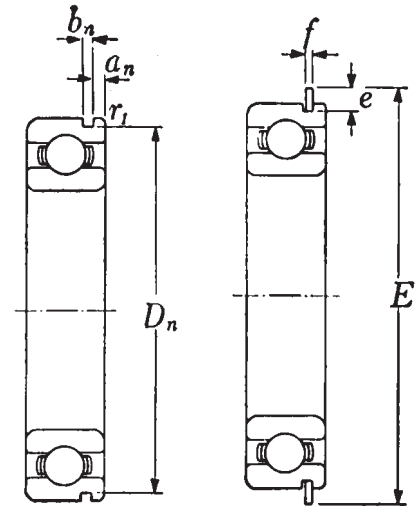
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SINGLE ROW RADIAL BALL BEARINGS

Units: **INCHES**
Millimeters

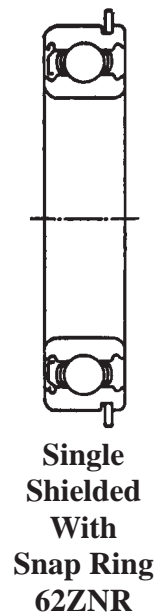


Snap Ring Groove Dimensions			Snap Ring Dimensions			Limiting Speed (RPM)			Bore Diameter No.
D_n (max)	a_n (max)	b_n (min)	E (max)	f	e	Grease	Oil	LLU	
1.109	.081	.065	1.37	.042	.125	25,000	30,000	18,000	00
28.17	2.06	1.65	34.7	1.07	3.17				
1.187	.081	.065	1.44	.042	.125	22,000	26,000	16,000	01
30.15	2.06	1.65	36.7	1.07	3.17				
1.187	.081	.065	1.44	.042	.125	22,000	26,000	16,000	01
30.15	2.06	1.65	36.7	1.07	3.17				
1.187	.081	.065	1.44	.042	.125	22,000	26,000	16,000	01
30.15	2.06	1.65	36.7	1.07	3.17				
1.187	.081	.065	1.44	.042	.125	22,000	26,000	16,000	01
30.15	2.06	1.65	36.7	1.07	3.17				
1.306	.081	.065	1.56	.042	.125	19,000	23,000	15,000	02
33.17	2.06	1.65	39.7	1.07	3.17				
1.306	.081	.065	1.56	.042	.125	19,000	23,000	15,000	02
33.17	2.06	1.65	39.7	1.07	3.17				
1.306	.081	.065	1.56	.042	.125	19,000	23,000	15,000	02
33.17	2.06	1.65	39.7	1.07	3.17				
1.500	.081	.065	1.76	.042	.125	18,000	21,000	12,000	03
38.10	2.06	1.65	44.6	1.07	3.17				
1.500	.081	.065	1.76	.042	.125	18,000	21,000	12,000	03
38.10	2.06	1.65	44.6	1.07	3.17				
1.500	.081	.065	1.76	.042	.125	18,000	21,000	12,000	03
38.10	2.06	1.65	44.6	1.07	3.17				
1.500	.081	.065	1.76	.042	.125	18,000	21,000	12,000	03
38.10	2.06	1.65	44.6	1.07	3.17				
1.756	.097	.065	2.07	.042	.156	16,000	18,000	10,000	04
44.60	2.46	1.65	52.7	1.07	3.96				
1.874	.097	.065	2.19	.042	.156	14,000	17,000	9,700	/22
47.60	2.46	1.65	55.7	1.07	3.96				
1.958	.097	.065	2.28	.042	.156	13,000	15,000	8,900	05
49.73	2.46	1.65	57.9	1.07	3.96				
1.958	.097	.065	2.28	.042	.156	13,000	15,000	8,900	05
49.73	2.46	1.65	57.9	1.07	3.96				
2.189	.097	.065	2.51	.042	.156	12,000	14,000	8,100	/28
55.60	2.46	1.65	63.7	1.07	3.96				
2.347	.129	.087	2.67	.065	.156	11,000	13,000	7,300	06
59.61	3.28	2.21	67.7	1.65	3.96				
2.465	.129	.087	2.78	.065	.156	11,000	12,000	7,100	/32
62.61	3.28	2.21	70.7	1.65	3.96				
2.709	.129	.087	3.09	.065	.188	9,800	11,000	6,300	07
68.81	3.28	2.21	78.6	1.65	4.77				
3.024	.129	.087	3.41	.065	.188	8,700	10,000	5,600	08
76.81	3.28	2.21	86.6	1.65	4.77				
3.221	.129	.087	3.61	.065	.188	7,800	9,200	5,200	09
81.81	3.28	2.21	91.6	1.65	4.77				
3.417	.129	.118	3.80	.095	.188	7,100	8,300	4,700	10
86.79	3.28	3.00	96.5	2.41	4.77				
3.811	.129	.118	4.19	.095	.188	6,400	7,600	4,300	11
96.80	3.28	3.00	106.5	2.41	4.77				
4.205	.129	.118	4.59	.095	.188	6,000	7,000	3,800	12
106.81	3.28	3.00	116.6	2.41	4.77				
4.536	.160	.134	5.11	.109	.281	5,500	6,500	3,600	13
115.21	4.06	3.40	129.7	2.77	7.13				
4.733	.160	.134	5.30	.109	.281	5,100	6,000	3,400	14
120.22	4.06	3.40	134.7	2.77	7.13				
4.930	.160	.134	5.50	.109	.281	4,800	5,600	3,200	15
125.22	4.06	3.40	139.7	2.77	7.13				
5.324	.193	.134	5.89	.109	.281	4,500	5,300	3,000	16
135.23	4.90	3.40	149.7	2.77	7.13				
5.718	.193	.134	6.29	.109	.281	4,200	5,000	2,800	17
145.24	4.90	3.40	159.7	2.77	7.13				
6.111	.193	.134	6.68	.109	.281	4,000	4,700	2,600	18
155.22	4.90	3.40	169.7	2.77	7.13				
6.443	.224	.150	7.20	.120	.375	3,700	4,400	2,500	19
163.65	5.69	3.81	182.9	3.05	9.52				
6.837	.224	.150	7.59	.120	.375	3,500	4,200	2,300	20
173.66	5.69	3.81	192.9	3.05	9.52				



With Snap Ring Groove 62N

With Snap Ring 62NR

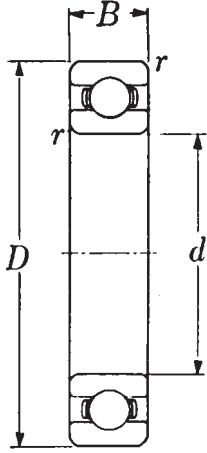


Single Shielded With Snap Ring 62ZNR

Continued on Page 27



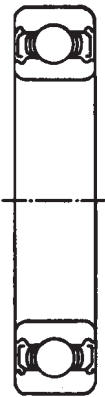
Units: **INCHES**
Millimeters



Open Type
62



Single
Shielded
62Z



Double
Shielded
62ZZ



Double
Sealed
62LLU
(Contact Type)



Double
Sealed
62LLB
(Non-Contact Type)

SINGLE ROW RADIAL BALL BEARINGS

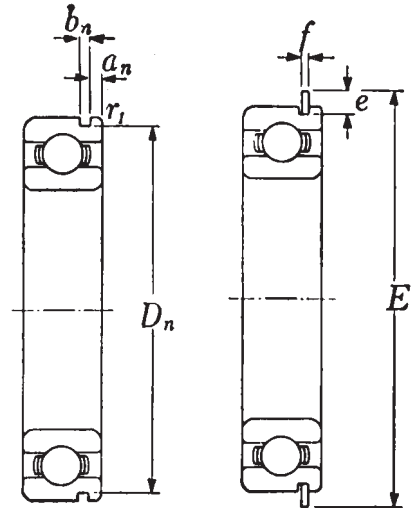
Bearing No.	Bore	O.D.	Width <i>B</i>	Fillet Radii		Basic Load Ratings (lbs)		Weight (lbs)
	<i>d</i>	<i>D</i>		<i>r</i>	<i>r</i> ₁	Dynamic <i>C</i>	Static <i>C</i> ₀	
6221	4.1339 105	7.4803 190	1.4173 36	.138 3.5	.020 .5	29,900	23,500	8.16
22	4.3307 110	7.8740 200	1.4961 38	.138 3.5	.020 .5	32,500	26,300	9.61
24	4.7244 120	8.4646 215	1.5748 40	.138 3.5	—	35,000	29,500	11.4
6226	5.1181 130	9.0551 230	1.5748 40	.157 4.0	—	37,500	33,000	12.8
28	5.5118 140	9.8425 250	1.6535 42	.157 4.0	—	37,500	33,500	16.5
30	5.9055 150	10.6299 270	1.7717 45	.157 4.0	—	39,500	37,500	20.7
6232	6.2992 160	11.4173 290	1.8898 48	.157 4.0	—	41,500	42,000	31.5
34	6.6929 170	12.2047 310	2.0472 52	.197 5.0	—	47,500	50,000	38.6
36	7.0866 180	12.5984 320	2.0472 52	.197 5.0	—	51,000	54,000	40.3
6238	7.4803 190	13.3858 340	2.1654 55	.197 5.0	—	57,500	63,500	50.7
40	7.8740 200	14.1732 360	2.2835 58	.197 5.0	—	60,800	70,000	62.2
44	8.6614 220	15.7480 400	2.5590 65	.157 4.0	—	67,000	81,500	66.6

SINGLE ROW RADIAL BALL BEARINGS

Units: **INCHES**
Millimeters

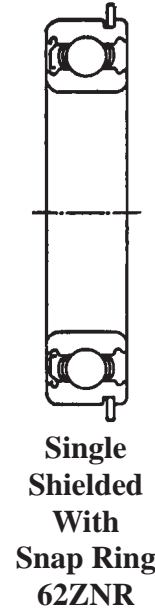


Snap Ring Groove Dimensions			Snap Ring Dimensions			Limiting Speed (RPM)			Bore Diameter No.
D_n (max)	a_n (max)	b_n (min)	E (max)	f (max)	e	Grease	Oil	LU, LLU	
7.230	.224	.150	7.99	.120	.375	3,400	4,000	2,300	21
183.64	5.69	3.81	202.9	3.05	9.52				
7.624	.224	.150	8.38	.120	.375	3,200	3,800	2,200	22
193.65	5.69	3.81	212.9	3.05	9.52				
—	—	—	—	—	—	2,900	3,400	2,000	24
—	—	—	—	—	—	2,300	2,700	—	26
—	—	—	—	—	—	2,100	2,500	—	28
—	—	—	—	—	—	2,000	2,400	—	30
—	—	—	—	—	—	1,900	2,200	—	32
—	—	—	—	—	—	1,800	2,100	—	34
—	—	—	—	—	—	1,700	1,800	—	36
—	—	—	—	—	—	1,800	2,100	—	38
—	—	—	—	—	—	1,700	2,000	—	40
—	—	—	—	—	—	1,500	1,800	—	44



With Snap Ring Groove
62N

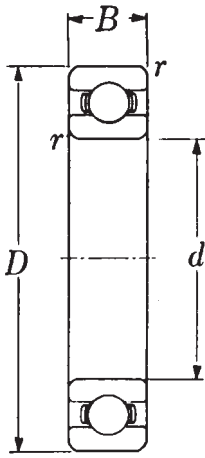
With Snap Ring
62NR



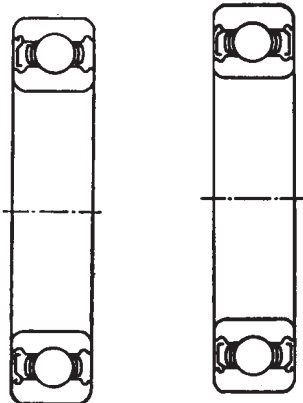
Single Shielded With Snap Ring
62ZNR



Units: **INCHES**
Millimeters

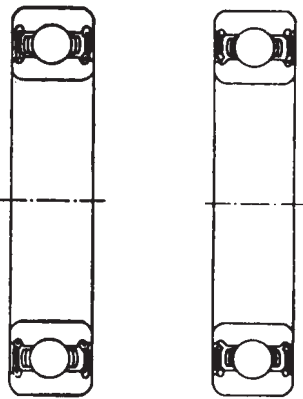


Open Type
63



Single
Shielded
63Z

Double
Shielded
63ZZ



Double
Sealed
63LLU

Double
Sealed
63LLB

(Contact Type) (Non-Contact Type)

SINGLE ROW RADIAL BALL BEARINGS

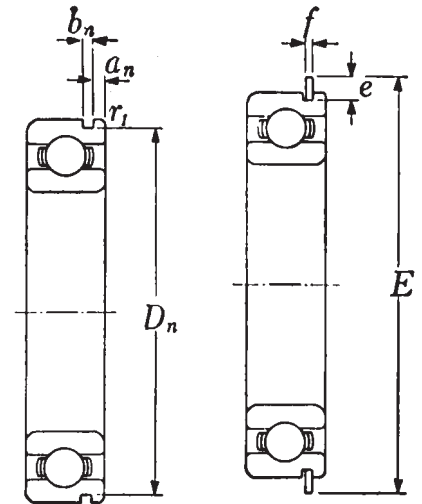
Bearing No.	Bore <i>d</i>	O.D. <i>D</i>	Width <i>B</i>	Fillet Radii		Basic Load Ratings (lbs)		Weight (lbs)
				<i>r</i>	<i>r₁</i>	Dynamic <i>C</i>	Static <i>C₀</i>	
6300	.3937 10	1.3780 35	.4331 11	.039 1.0	.020 .5	1,840	785	.117
01	.4724 12	1.4567 37	.4724 12	.059 1.5	.020 .5	2,180	940	.132
02	.5906 15	1.6535 42	.5118 13	.059 1.5	.020 .5	2,570	1,220	.181
6303	.6693 17	1.8504 47	.5512 14	.059 1.5	.020 .5	3,050	1,470	.254
04	.7874 20	2.0472 52	.5906 15	.079 2.0	.020 .5	3,600	1,770	.317
/22	.8661 22	2.2047 56	.6299 16	.079 2.0	.020 .5	4,150	2,080	.388
6305	.9843 25	2.4409 62	.6693 17	.079 2.0	.020 .5	4,750	2,460	.511
/28	1.1024 28	2.6772 68	.7087 18	.079 2.0	.020 .5	6,000	3,150	.633
06	1.1811 30	2.8346 72	.7480 19	.079 2.0	.020 .5	6,000	3,400	.763
63/32	1.2598 32	2.9528 75	.7874 20	.079 2.0	.020 .5	6,700	3,800	.842
07	1.3780 35	3.1496 80	.8268 21	.098 2.5	.020 .5	7,500	4,300	1.01
08	1.5748 40	3.5433 90	.9055 23	.098 2.5	.020 .5	9,150	5,400	1.40
6309	1.7717 45	3.9370 100	.9843 25	.098 2.5	.020 .5	11,900	7,200	1.84
10	1.9685 50	4.3307 110	1.0630 27	.118 3.0	.020 .5	13,900	8,600	2.36
11	2.1654 55	4.7244 120	1.1417 29	.118 3.0	.020 .5	16,100	10,100	3.02
6312	2.3622 60	5.1181 130	1.2205 31	.138 3.5	.020 .5	18,400	11,700	3.75
13	2.5591 65	5.5118 140	1.2992 33	.138 3.5	.020 .5	20,800	13,400	4.59
14	2.7559 70	5.9055 150	1.3780 35	.138 3.5	.020 .5	23,400	15,300	5.56
6315	2.9528 75	6.2992 160	1.4567 37	.138 3.5	.020 .5	25,500	17,400	6.66
16	3.1496 80	6.6929 170	1.5354 39	.138 3.5	.020 .5	27,600	19,500	7.91
17	3.3465 85	7.0866 180	1.6142 41	.157 4.0	.020 .5	29,800	21,800	9.33
6318	3.5433 90	7.4803 190	1.6929 43	.157 4.0	.020 .5	32,000	24,100	10.8
19	3.7402 95	7.8740 200	1.7717 45	.157 4.0	.020 .5	34,500	26,600	12.5
20	3.9370 100	8.4646 215	1.8504 47	.157 4.0	—	39,000	31,500	15.4
6321	4.1339 105	8.8583 225	1.9291 49	.157 4.0	—	41,500	34,500	17.7
22	4.3307 110	9.4488 240	1.9685 50	.157 4.0	—	46,000	40,500	21.0
24	4.7244 120	10.2362 260	2.1654 55	.157 4.0	—	46,500	41,500	27.3
6326	5.1181 130	11.0236 280	2.2835 58	.197 5.0	—	51,500	48,000	33.3
28	5.5118 140	11.8110 300	2.4409 62	.197 5.0	—	57,000	55,500	40.8
30	5.9055 150	12.5984 320	2.5591 65	.197 5.0	—	61,500	63,500	57.8
6332	6.2992 160	13.3858 340	2.6772 68	.197 5.0	—	62,500	64,500	63.9
34	6.6929 170	14.1732 360	2.8346 72	.197 5.0	—	73,500	80,000	76.1
36	7.0866 180	14.9606 380	2.9528 75	.197 5.0	—	79,500	91,500	93.5
6338	7.4803 190	15.7480 400	3.0709 78	.236 6.0	—	79,500	93,000	108
40	7.8740 200	16.5354 420	3.1496 80	.236 6.0	—	92,000	113,000	122
44	8.6614 220	18.1102 460	3.4650 88	.197 5.0	—	92,500	116,000	134

SINGLE ROW RADIAL BALL BEARINGS

Units: INCHES
Millimeters

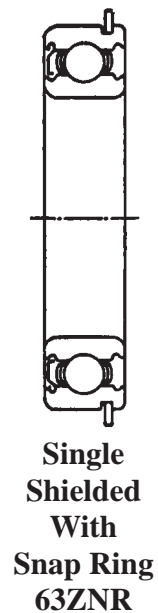


Snap Ring Groove Dimensions			Snap Ring Dimensions			Limiting Speed (RPM)			Bore Diameter No.
D_n (max)	a_n (max)	b_n (min)	E (max)	f (max)	e	Grease	Oil	LU, LLU	
1.306	.081	.065	1.56	.042	.125	23,000	27,000	16,000	00
33.17	2.06	1.65	39.7	1.07	3.18				
1.369	.081	.065	1.63	.042	.125	20,000	24,000	15,000	01
34.77	2.06	1.65	41.3	1.07	3.18				
1.565	.081	.065	1.82	.042	.125	17,000	21,000	12,000	02
39.75	2.06	1.65	46.3	1.07	3.18				
1.756	.097	.065	2.07	.042	.156	16,000	19,000	11,000	03
44.60	2.46	1.65	52.7	1.07	3.96				
1.958	.097	.065	2.28	.042	.156	14,000	17,000	10,000	04
49.73	2.46	1.65	57.9	1.07	3.96				
2.110	.097	.065	2.43	.042	.156	13,000	15,000	9,200	/22
53.59	2.46	1.65	61.7	1.07	3.96				
2.347	.129	.087	2.67	.065	.156	12,000	14,000	8,100	05
59.61	3.28	2.20	67.7	1.65	3.96				
2.552	.129	.087	2.94	.065	.188	11,000	13,000	7,400	/28
64.82	3.28	2.20	74.6	1.65	4.77				
2.709	.129	.087	3.09	.065	.188	10,000	12,000	6,600	06
68.81	3.28	2.20	78.6	1.65	4.77				
2.828	.129	.087	3.21	.065	.188	9,500	11,000	6,500	/32
71.83	3.28	2.20	81.6	1.65	4.77				
3.024	.129	.087	3.41	.065	.188	8,800	10,000	6,000	07
76.81	3.28	2.20	86.6	1.65	4.77				
3.417	.129	.118	3.80	.095	.188	7,800	9,200	5,300	08
86.79	3.28	3.00	96.5	2.41	4.77				
3.811	.129	.118	4.19	.095	.188	7,000	8,200	4,700	09
96.80	3.28	3.00	106.5	2.41	4.77				
4.205	.129	.118	4.59	.095	.188	6,400	7,500	4,200	10
106.81	3.28	3.00	116.6	2.41	4.77				
4.536	.160	.134	5.11	.109	.281	5,800	6,800	3,900	11
115.21	4.06	3.40	129.7	2.77	7.13				
4.930	.160	.134	5.50	.109	.281	5,400	6,300	3,600	12
125.22	4.06	3.40	139.7	2.77	7.13				
5.324	.193	.134	5.89	.109	.281	4,900	5,800	3,300	13
135.23	4.90	3.40	149.7	2.77	7.13				
5.718	.193	.134	6.29	.109	.281	4,600	5,400	3,100	14
145.24	4.90	3.40	159.7	2.77	7.13				
6.111	.193	.134	6.68	.109	.281	4,300	5,000	2,900	15
155.22	4.90	3.40	169.7	2.77	7.13				
6.443	.224	.150	7.20	.120	.375	4,000	4,700	2,700	16
163.65	5.69	3.80	182.9	3.05	9.52				
6.837	.224	.150	7.59	.120	.375	3,800	4,500	2,600	17
173.66	5.69	3.80	192.9	3.05	9.52				
7.230	.224	.150	7.99	.120	.375	3,600	4,200	2,400	18
183.64	5.69	3.80	202.9	3.05	9.52				
7.624	.224	.150	8.38	.120	.375	3,300	3,900	2,300	19
193.65	5.69	3.80	212.9	3.05	9.52				
—	—	—	—	—	—	3,200	3,700	2,200	20
—	—	—	—	—	—	3,000	3,600	2,100	21
—	—	—	—	—	—	2,900	3,400	1,900	22
—	—	—	—	—	—	2,600	3,100	—	24
—	—	—	—	—	—	2,400	2,800	—	26
—	—	—	—	—	—	2,200	2,600	—	28
—	—	—	—	—	—	2,100	2,400	—	30
—	—	—	—	—	—	1,900	2,300	—	32
—	—	—	—	—	—	1,800	2,100	—	34
—	—	—	—	—	—	1,700	2,000	—	36
—	—	—	—	—	—	1,600	1,900	—	38
—	—	—	—	—	—	1,500	1,800	—	40
—	—	—	—	—	—	1,400	1,600	—	44



With Snap Ring Groove
63N

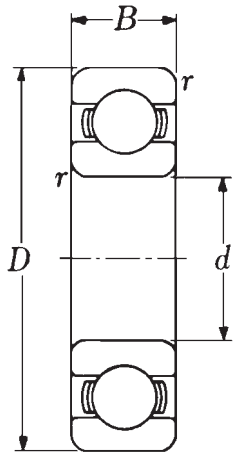
With Snap Ring
63NR



Single Shielded
With Snap Ring
63ZNR



Units: **INCHES**
Millimeters



Open Type
64



Double Sealed
64LLU
(Contact Type)

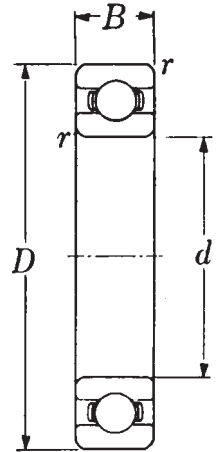
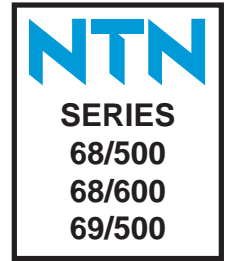
SINGLE ROW RADIAL BALL BEARINGS

Bearing Number	Bore <i>d</i>	O. D. <i>D</i>	Width <i>B</i>	Fillet Radius <i>r</i>	Basic Load Ratings (lbs)		Weight (lbs)	Limiting Speed (RPM)			Bore Dia. No.
					Dynamic <i>C</i>	Static <i>C₀</i>		Grease	Oil	LU, LLU	
6403	.6693 17	2.4409 62	.6693 17	.043 1.1	5,100	2,420	.595	14,000	16,000	9,500	03
6404	.7874 20	2.8346 72	.7480 19	.043 1.1	6,400	3,150	.882	12,000	14,000	8,000	04
6405	.9843 25	3.1496 80	.8268 21	.059 1.5	7,800	3,950	1.17	10,000	12,000	6,900	05
6406	1.1811 30	3.5433 90	.9055 23	.059 1.5	9,750	5,350	1.62	8,800	10,000	5,800	06
6407	1.3780 35	3.9370 100	.9843 25	.059 1.5	12,400	7,000	2.10	7,800	9,100	5,100	07
6408	1.5748 40	4.3307 110	1.0630 27	.079 2	14,300	8,200	2.71	7,000	8,200	4,700	08
6409	1.7717 45	4.7244 120	1.1417 29	.079 2	17,300	10,100	3.37	6,300	7,400	4,300	09
6410	1.9685 50	5.1181 130	1.2205 31	.083 2.1	18,700	11,100	4.14	5,700	6,700	—	10
6411	2.1654 55	5.5118 140	1.2992 33	.083 2.1	20,000	12,100	5.05	5,200	6,100	—	11
6412	2.3622 60	5.9055 150	1.3780 35	.083 2.1	22,900	14,400	6.11	4,800	5,700	—	12
6413	2.5591 65	6.2992 160	1.4567 37	.083 2.1	24,900	16,200	7.28	4,400	5,200	—	13
6414	2.7559 70	7.0866 180	1.6535 42	.118 3	28,800	20,100	10.6	4,100	4,800	—	14
6415	2.9528 75	7.4803 190	1.7717 45	.118 3	31,000	22,300	12.6	3,800	4,500	—	15
6416	3.1496 80	7.8740 200	1.8898 48	.118 3	37,000	28,200	14.9	3,600	4,200	—	16
6417	3.3465 85	8.2677 210	2.0472 52	.157 4	37,000	28,700	17.5	3,400	4,000	—	17
6418	3.5433 90	8.8583 225	2.1260 54	.157 4	41,500	33,500	25.1	3,200	3,800	—	18
6419	3.7402 95	9.4488 240	2.1654 55	.157 4	42,000	34,500	29.5	3,000	3,500	—	19
6420	3.9370 100	9.8425 250	2.2835 58	.157 4	46,000	39,500	33.1	2,900	3,400	—	20
6421	4.1339 105	10.2362 260	2.3622 60	.157 4	46,500	40,000	37.0	2,700	3,200	—	21
6422	4.3307 110	11.0236 280	2.5591 65	.157 4	55,500	51,000	47.0	2,600	3,000	—	22
6424	4.7244 120	12.2047 310	2.8346 72	.197 5	65,500	64,500	63.9	2,300	2,800	—	24
6426	5.1181 130	13.3858 340	3.0709 78	.197 5	68,000	67,000	83.8	2,200	2,500	—	26

SINGLE ROW RADIAL BALL BEARINGS

Bearing Number	Bore		Width	Fillet Radius	Basic Load Ratings (lbs)		Weight (lbs)	Limiting Speed (RPM)			Bore Dia. No.
	<i>d</i>	<i>D</i>			<i>B</i>	<i>r</i>		<i>C</i>	<i>C₀</i>	<i>Grease</i>		Oil	LU, LLU
68/500	19.69 500	24.41 620	2.205 56	.1181 3	73,500	126,000	82.7	820	970	— —	500
68/530	20.87 530	25.59 650	2.205 56	.1181 3	74,500	131,000	87.1	770	900	— —	530
68/560	22.05 560	26.77 680	2.205 56	.1181 3	75,500	135,000	91.5	710	840	— —	560
68/600	23.62 600	28.74 730	2.362 60	.1181 3	84,500	159,000	114	660	780	— —	600
69/500	19.69 500	26.38 670	3.071 78	.1969 5	100,000	182,000	166	770	910	— —	500

Units: **INCHES**
Millimeters



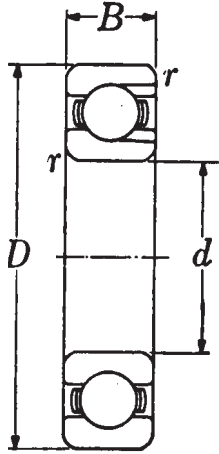
Open Type



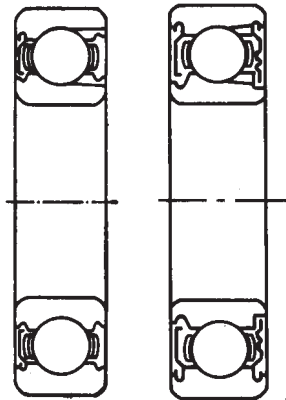
Units: **INCHES**
Millimeters

SINGLE ROW RADIAL BALL BEARINGS

Bearing No.	Bore <i>d</i>	O.D. <i>D</i>	Width <i>B</i>	Fillet Radii		Basic Load Ratings (lbs)		Weight (lbs)
				<i>r</i>	<i>r₁</i>	Dynamic <i>C</i>	Static <i>C₀</i>	
BL205	.9843 25	2.0472 52	.5906 15	.059 1.5	.020 .5	3,800	2,360	.312
/28	1.1024 28	2.2835 58	.6299 16	.059 1.5	.020 .5	5,250	3,300	.420
06	1.1811 30	2.4409 62	.6299 16	.059 1.5	.020 .5	5,600	3,650	.471
BL2/32	1.2598 32	2.5591 65	.6693 17	.059 1.5	.020 .5	6,100	3,900	.540
07	1.3780 35	2.8346 72	.6693 17	.079 2.0	.020 .5	7,400	4,950	.700
08	1.5748 40	3.1496 80	.7087 18	.079 2.0	.020 .5	8,800	6,250	.880
BL209	1.7717 45	3.3465 85	.7480 19	.079 2.0	.020 .5	9,900	7,150	1.00
10	1.9685 50	3.5433 90	.7874 20	.079 2.0	.020 .5	10,300	7,850	1.10
11	2.1654 55	3.9370 100	.8268 21	.098 2.5	.020 .5	12,800	9,850	1.50
BL212	2.3622 60	4.3307 110	.8661 22	.098 2.5	.020 .5	15,500	12,200	1.90
13	2.5591 65	4.7244 120	.9055 23	.098 2.5	.020 .5	16,900	13,500	2.40
14	2.7559 70	4.9213 125	.9449 24	.098 2.5	.020 .5	18,300	14,900	2.60
BL215	2.9528 75	5.1181 130	.9843 25	.098 2.5	.020 .5	19,100	16,100	2.79
16	3.1496 80	5.5118 140	1.0236 26	.118 3.0	.020 .5	22,400	19,100	3.50
17	3.3465 85	5.9055 150	1.1024 28	.118 3.0	.020 .5	24,000	20,800	4.49
BL218	3.5433 90	6.2992 160	1.1811 30	.118 3.0	.020 .5	29,500	25,700	5.50
19	3.7402 95	6.6929 170	1.2598 32	.138 3.5	.020 .5	32,000	27,600	6.82
20	3.9370 100	7.0866 180	1.3386 34	.138 3.5	.020 .5	36,000	31,500	8.03
BL221	4.1339 105	7.4803 190	1.4173 36	.138 3.5	.020 .5	39,000	35,500	9.72
22	4.3307 110	7.8740 200	1.4961 38	.138 3.5	.020 .5	42,500	39,500	11.3



Open Type



Single Shielded
Z

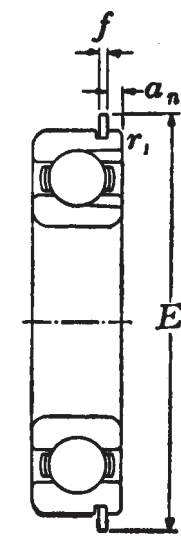
Double Shielded
ZZ

SINGLE ROW RADIAL BALL BEARINGS

Units: **INCHES**
Millimeters



Snap Ring Dimensions		<i>f</i>	Limiting Speed (RPM)		Bore Diameter No.
<i>a_n</i> (max)	<i>E</i> (max)		<i>Grease</i>	<i>Oil</i>	
.097	2.28	.042	12,000	14,000	05
2.46	57.9	1.07			
.097	2.51	.042	11,000	13,000	/28
2.46	63.7	1.07			
.129	2.67	.065	10,000	12,000	06
3.28	67.7	1.65			
.129	2.78	.065	9,500	11,000	/32
3.28	70.7	1.65			
.129	3.09	.065	8,800	10,000	07
3.28	78.6	1.65			
.129	3.41	.065	7,800	9,200	08
3.28	86.6	1.65			
.129	3.61	.065	7,000	8,200	09
3.28	91.6	1.65			
.129	3.80	.095	6,400	7,500	10
3.28	96.5	2.41			
.129	4.19	.095	5,800	6,800	11
3.28	106.5	2.41			
.129	4.59	.095	5,400	6,300	12
3.28	116.6	2.41			
.160	5.11	.109	4,900	5,800	13
4.06	129.7	2.77			
.160	5.30	.109	4,600	5,400	14
4.06	134.7	2.77			
.160	5.50	.109	4,300	5,000	15
4.06	139.7	2.77			
.193	5.89	.109	4,000	4,700	16
4.90	149.7	2.77			
.193	6.29	.109	3,800	4,400	17
4.90	159.7	2.77			
.193	6.68	.109	3,600	4,200	18
4.90	169.7	2.77			
.224	7.20	.120	3,400	3,900	18
5.69	182.9	3.05			
.224	7.59	.120	3,200	3,700	20
5.69	192.9	3.05			
.224	7.99	.120	3,000	3,600	21
5.69	202.9	3.05			
.224	8.38	.120	2,900	3,400	22
5.69	212.9	3.05			



With Snap Ring
NR



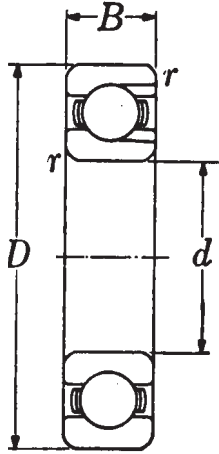
Single Shielded
With Snap Ring
ZNR



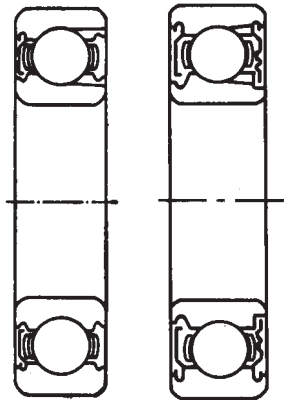
Units: **INCHES**
Millimeters

SINGLE ROW RADIAL BALL BEARINGS

Bearing No.	Bore <i>d</i>	O.D. <i>D</i>	Width <i>B</i>	Fillet Radii		Basic Load Ratings (lbs)		Weight (lbs)
				<i>r</i>	<i>r₁</i>	Dynamic <i>C</i>	Static <i>C₀</i>	
BL304	.7874 20	2.0472 52	.5906 15	.079 2.0	.020 .5	4,550	2,530	.359
/22	.8661 22	2.2047 56	.6299 16	.079 2.0	.020 .5	5,250	2,980	.440
05	.9843 25	2.4409 62	.6693 17	.079 2.0	.020 .5	6,050	3,500	.568
BL3/28	1.1024 28	2.6772 68	.7087 18	.079 2.0	.020 .5	7,600	4,500	.720
06	1.1811 30	2.8346 72	.7480 19	.079 2.0	.020 .5	7,400	4,650	.858
/32	1.2598 32	2.9528 75	.7874 20	.079 2.0	.020 .5	8,300	5,250	.960
BL307	1.3780 35	3.1496 80	.8268 21	.098 2.5	.020 .5	9,800	6,450	1.10
08	1.5748 40	3.5433 90	.9055 23	.098 2.5	.020 .5	12,300	8,050	1.50
09	1.7717 45	3.9370 100	.9843 25	.098 2.5	.020 .5	14,700	9,900	2.10
BL310	1.9685 50	4.3307 110	1.0630 27	.118 3.0	.020 .5	17,200	11,800	2.68
11	2.1654 55	4.7244 120	1.1417 29	.118 3.0	.020 .5	21,100	15,200	3.41
12	2.3622 60	5.1181 130	1.2205 31	.138 3.5	.020 .5	24,100	17,600	4.22
BL313	2.5591 65	5.5118 140	1.2992 33	.138 3.5	.020 .5	27,300	20,200	5.19
14	2.7559 70	5.9055 150	1.3780 35	.138 3.5	.020 .5	30,500	23,000	6.49
15	2.9528 75	6.2992 160	1.4567 37	.138 3.5	.020 .5	33,500	26,000	7.92
BL316	3.1496 80	6.6929 170	1.5354 39	.138 3.5	.020 .5	36,000	29,200	8.69
17	3.3465 85	7.0866 180	1.6142 41	.157 4.0	.020 .5	39,000	32,500	10.3
18	3.5433 90	7.4803 190	1.6929 43	.157 4.0	.020 .5	42,000	36,000	13.0
BL319	3.7402 95	7.8740 200	1.7717 45	.157 4.0	.020 .5	45,000	40,000	15.0
20	3.9370 100	8.4646 215	1.8504 47	.157 4.0	—	51,000	47,500	18.3
21	4.1339 105	8.8583 225	1.9291 49	.157 4.0	—	54,000	52,000	20.8
BL322	4.3307 110	9.4488 240	1.9685 50	.157 4.0	—	60,500	60,500	24.3



Open Type



Single Shielded
Z

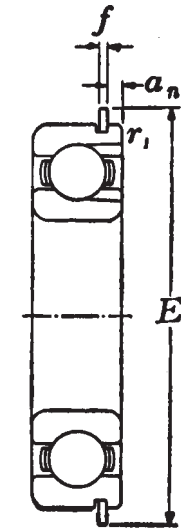
Double Shielded
ZZ

SINGLE ROW RADIAL BALL BEARINGS

Units: **INCHES**
Millimeters



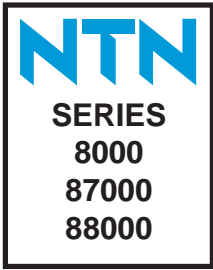
Snap Ring Dimensions		<i>f</i>	Limiting Speed (RPM)		Bore Diameter No.
<i>a_n</i> (max)	<i>E</i> (max)		<i>Grease</i>	<i>Oil</i>	
.097	2.28	.042	13,000	15,000	04
2.46	57.9	1.07			
.097	2.43	.042	12,000	14,000	/22
2.46	61.7	1.07			
.129	2.67	.065	11,000	12,000	05
3.28	67.7	1.65			
.129	2.94	.065	9,600	11,000	/28
3.28	74.6	1.65			
.129	3.09	.065	9,000	11,000	06
3.28	78.6	1.65			
.129	3.21	.065	8,600	10,000	/32
3.28	81.6	1.65			
.129	3.41	.065	7,900	9,300	07
3.28	86.6	1.65			
.129	3.80	.095	7,000	8,200	08
3.28	96.5	2.41			
.129	4.19	.095	6,300	7,400	09
3.28	106.5	2.41			
.129	4.59	.095	5,700	6,700	10
3.28	116.6	2.41			
.160	5.11	.109	5,200	6,100	11
4.06	129.7	2.77			
.160	5.50	.109	4,800	5,700	12
4.06	139.7	2.77			
.193	5.89	.109	4,400	5,200	13
4.90	149.7	2.77			
.193	6.29	.109	4,100	4,800	14
4.90	159.7	2.77			
.193	6.68	.109	3,800	4,500	15
4.90	169.7	2.77			
.224	7.20	.120	3,600	4,200	16
5.69	182.9	3.05			
.224	7.59	.120	3,400	4,000	17
5.69	192.9	3.05			
.224	7.99	.120	3,200	3,800	18
5.69	202.9	3.05			
.224	8.38	.120	3,000	3,500	19
5.69	212.9	3.05			
—	—	—	2,900	3,400	20
—	—	—	2,700	3,200	21
—	—	—	2,600	3,100	22



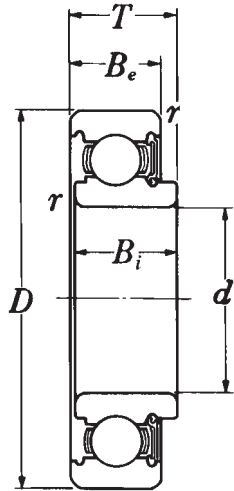
With Snap Ring
NR



Single Shielded
With Snap Ring
ZNR



Units: **INCHES**
Millimeters



**Single Shielded
8000**



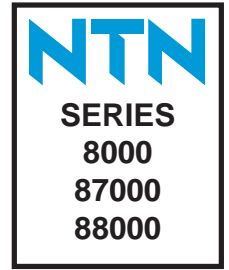
**Shielded
And Sealed
87000**

SINGLE ROW RADIAL BALL BEARINGS

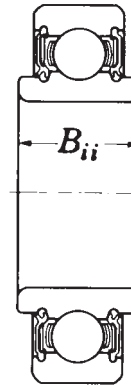
Bearing No.			Bore	O.D.	Inner Ring Width		Outer Ring Width
8000	87000	88000	<i>d</i>	<i>D</i>	<i>B_i</i>	<i>B_{ii}</i>	<i>B_e</i>
8035	87035	88035	.1969 5	.7480 19	.3860 9.804	.4970 12.624	.3150 8
8036	87036	88036	.2362 6	.7480 19	.3860 9.804	.4970 12.624	.3150 8
8006	87006	88006	.2362 6	.9449 24	.3860 9.804	.4970 12.624	.3150 8
8037	87037	88037	.2756 7	.8661 22	.3860 9.804	.4970 12.624	.3150 8
8007	87007	88007	.2756 7	.9449 24	.3860 9.804	.4970 12.624	.3150 8
8038	87038	88038	.3150 8	.8661 22	.3860 9.804	.4970 12.624	.3150 8
8008	87008	88008	.3150 8	.9449 24	.3860 9.804	.4970 12.624	.3150 8
8039	87039	88039	.3543 9	1.0236 26	.3860 9.804	.4970 12.624	.3150 8
8009	87009	88009	.3543 9	1.1811 30	.4800 12.192	.6457 16.401	.3543 9
8500	87500	88500	.3937 10	1.1811 30	.4800 12.192	.6457 16.401	.3543 9
8011	87011	88011	.4331 11	1.2598 32	.4800 12.192	.6063 15.400	.3937 10
8501	87501	88501	.4724 12	1.2598 32	.4800 12.192	.6063 15.400	.3937 10
8013	87013	88013	.5118 13	1.2598 32	.4800 12.192	.6063 15.400	.3937 10
8014	87014	88014	.5512 14	1.3780 35	.4800 12.192	.5669 14.399	.4331 11
8502	87502	88502	.5906 15	1.3780 35	.4800 12.192	.5669 14.399	.4331 11
8016	87016	88016	.6299 16	1.3780 35	.4800 12.192	.5669 14.399	.4331 11
8602	87602	88602	.5906 15	1.6535 42	.5512 14.000	.6693 17.000	.5118 13
8503	87503	88503	.6693 17	1.5748 40	.5380 13.665	.6536 16.601	.4724 12
8603	87603	88603	.6693 17	1.8504 47	.5906 15.000	.7087 18.000	.5512 14
8504	87504	88504	.7874 20	1.8504 47	.6000 15.240	.6988 17.750	.5512 14
8604	87604	88604	.7874 20	2.0472 52	.7087 18.000	.9055 23.000	.5906 15
8505	87505	88505	.9843 25	2.0472 52	.6000 15.240	.6594 16.749	.5906 15
8605	87605	88605	.9843 25	2.4409 62	.8268 21.000	.9843 25.000	.6693 17
8026	87026	88026	1.0236 26	2.0472 52	.6000 15.240	.6594 16.749	.5906 15
8506	87506	88506	1.1811 30	2.4409 62	.7480 19.000	.9449 24.000	.6299 16
8606	87606	88606	1.1811 30	2.8346 72	.9055 23.000	1.0630 27.000	.7480 19
8507	87507	88507	1.3780 35	2.8346 72	.7874 20.000	.9843 25.000	.6693 17
8607	87607	88607	1.3780 35	3.1496 80	.9843 25.000	1.1417 29.000	.8268 21
8508	87508	88508	1.5748 40	3.1496 80	.9449 24.000	1.0630 27.000	.8268 21
8608	87608	88608	1.5748 40	3.5433 90	1.0630 27.000	1.2205 31.000	.9055 23
8509	87509	88509	1.7717 45	3.3465 85	.9449 24.000	1.0630 27.000	.8268 21
8609	87609	88609	1.7717 45	3.9370 100	1.1811 30.000	1.3780 35.000	.9843 25
8510	87510	88510	1.9685 50	3.5433 90	1.0236 26.000	1.1811 30.000	.8661 22
8511	87511	88511	2.1654 55	3.9370 100	1.0630 27.000	1.2205 31.000	.9055 23
8512	87512	88512	2.3622 60	4.3307 110	1.1417 29.000	1.2992 33.000	.9843 25
8513	87513	88513	2.5591 65	4.7244 120	1.2205 31.000	1.4173 36.000	1.0236 26
8514	87514	—	2.7559 70	4.9213 125	1.2992 33.000	1.4961 38.000	1.1024 28

SINGLE ROW RADIAL BALL BEARINGS

Units: **INCHES**
Millimeters



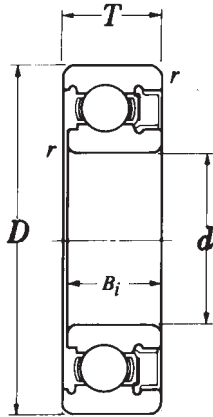
Overall Width <i>T</i>	Fillet Radius <i>r (min)</i>	Basic Load Ratings (lbs)		Weight (lbs)			Bearing No.
		<i>Dynamic C</i>	<i>Static C₀</i>	8000	87000	88000	
.4063 10.319	.012 .3	525	199	.022	.023	.026	8035
.4063 10.319	.012 .3	525	199	.024	.025	.027	8036
.4063 10.319	.012 .3	750	315	.046	.048	.055	8006
.4063 10.319	.012 .3	750	315	.037	.039	.043	8037
.4063 10.319	.012 .3	900	355	.045	.047	.051	8007
.4063 10.319	.012 .3	750	315	.036	.038	.040	8038
.4063 10.319	.012 .3	900	355	.043	.044	.048	8008
.4063 10.319	.025 .6	1,030	440	.051	.053	.057	8039
.5000 12.700	.025 .6	1,150	540	.078	.095	.105	8009
.5000 12.700	.025 .6	1,150	540	.075	.077	.091	8500
.5000 12.700	.025 .6	1,370	615	.099	.101	.104	8011
.5000 12.700	.025 .6	1,370	615	.095	.097	.099	8501
.5000 12.700	.025 .6	1,370	615	.091	.093	.095	8013
.5000 12.700	.025 .6	1,740	805	.111	.115	.125	8014
.5000 12.700	.025 .6	1,740	805	.106	.108	.119	8502
.5000 12.700	.025 .6	1,740	805	.101	.105	.114	8016
.5906 15.000	.040 1.0	2,570	1,220	.188	.193	.210	8602
.5625 14.288	.025 .6	2,160	1,030	.150	.154	.166	8503
.6299 16.000	.040 1.0	3,050	1,470	.254	.257	.279	8603
.6250 15.875	.040 1.0	2,890	1,500	.232	.237	.259	8504
.7480 19.000	.040 1.0	3,600	1,770	.345	.352	.398	8604
.6250 15.875	.040 1.0	3,150	1,770	.287	.292	.304	8505
.8268 21.000	.040 1.0	4,750	2,460	.590	.600	.650	8605
.6250 15.875	.040 1.0	3,150	1,770	.277	.282	.294	8026
.7874 20.000	.040 1.0	4,400	2,540	.495	.506	.571	8506
.9055 23.000	.040 1.0	6,000	3,400	.860	.890	.970	8606
.8268 21.000	.040 1.0	5,750	3,450	.695	.708	.765	8507
.9843 25.000	.060 1.5	7,500	4,300	1.10	1.12	1.20	8607
.9449 24.000	.040 1.0	6,550	4,000	1.03	1.07	1.18	8508
1.0630 27.000	.060 1.5	9,150	5,400	1.53	1.56	1.65	8608
.9449 24.000	.040 1.0	7,350	4,600	1.19	1.20	1.22	8509
1.1811 30.000	.060 1.5	11,900	7,200	1.96	2.01	2.19	8609
1.0236 26.000	.040 1.0	7,900	5,200	1.27	1.30	1.40	8510
1.0630 27.000	.060 1.5	9,750	6,550	1.60	1.64	1.78	8511
1.1417 29.000	.060 1.5	11,800	8,150	2.11	2.10	2.34	8512
1.2205 31.000	.060 1.5	12,900	9,000	2.79	2.80	3.05	8513
1.2992 33.000	.060 1.5	14,000	9,900	3.00	3.08	—	8514



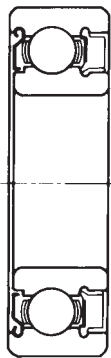
**Double Sealed
88000**



Units: **INCHES**
Millimeters



**Single Sealed
WC8000**



**Shielded
and Sealed
WC87000**

SINGLE ROW RADIAL BALL BEARINGS

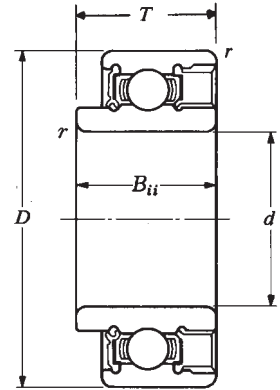
Bearing No.		Bore	O.D.	Overall Width	Inner Ring Width	Fillet Radius	Basic Load Ratings (lbs)		Weight (lbs)
<i>Single Sealed</i>	<i>Shielded & Sealed</i>	<i>d</i>	<i>D</i>	<i>T</i>	<i>B_i</i>	<i>r (min)</i>	<i>Dynamic C</i>	<i>Static C₀</i>	
WC8006	WC87006	.2362 6	.9449 24	.4063 10.319	.3860 9.804	.012 .3	750	315	.06
WC8007	WC87007	.2756 7	.9449 24	.4063 10.319	.3860 9.804	.012 .3	900	355	.05
WC8008	WC87008	.3150 8	.9449 24	.4063 10.319	.3860 9.804	.012 .3	900	355	.05
WC8009	WC87009	.3543 9	1.1811 30	.5000 12.700	.4800 12.192	.025 .6	1,150	540	.10
WC8011	WC87011	.4331 11	1.2598 32	.5000 12.700	.4800 12.192	.025 .6	1,370	315	.11
WC8013	WC87013	.5118 13	1.2598 32	.5000 12.700	.4800 12.192	.025 .6	1,370	315	.10
WC8014	WC87014	.5512 14	1.3780 35	.5000 12.700	.4800 12.192	.025 .6	1,740	805	.11
WC8016	WC87016	.6299 16	1.3780 35	.5000 12.700	.4800 12.192	.025 .6	1,740	805	.11
WC8026	WC87026	1.0236 26	2.0472 52	.6250 15.875	.6000 15.240	.040 1.0	3,150	1,770	.28
WC8035	WC87035	.1969 5	.7480 19	.4063 10.319	.3860 9.804	.012 .3	525	199	.06
WC8036	WC87036	.2362 6	.7480 19	.4063 10.319	.3860 9.804	.012 .3	525	199	.06
WC8037	WC87037	.2756 7	.8661 22	.4063 10.319	.3860 9.804	.012 .3	750	315	.04
WC8038	WC87038	.3150 8	.8661 22	.4063 10.319	.3860 9.804	.012 .3	750	315	.04
WC8039	WC87039	.3543 9	1.0236 26	.4063 10.319	.3860 9.804	.025 .6	1,030	440	.06
WC8500	WC87500	.3937 10	1.1811 30	.5000 12.700	.4800 12.192	.025 .6	1,150	540	.09
WC8501	WC87501	.4724 12	1.2598 32	.5000 12.700	.4800 12.192	.025 .6	1,370	615	.10
WC8502	WC87502	.5906 15	1.3780 35	.5000 12.700	.4800 12.192	.025 .6	1,740	805	.12
WC8503	WC87503	.6693 17	1.5748 40	.5625 14.288	.5380 13.665	.025 .6	2,160	1,030	.17
WC8504	WC87504	.7874 20	1.8504 47	.6250 15.875	.6000 15.240	.040 1.0	2,890	1,500	.26
WC8505	WC87505	.9843 25	2.0472 52	.6250 15.875	.6000 15.240	.040 1.0	3,150	1,770	.30
WC8506	WC87506	1.1811 30	2.4409 62	.7874 20.000	.7480 19.000	.040 1.0	4,400	2,540	.54
WC8507	WC87507	1.3780 35	2.8346 72	.8268 21.000	.7874 20.000	.040 1.0	5,750	3,450	.76
WC8508	WC87508	1.5748 40	3.1496 80	.9449 24.000	.9449 24.000	.040 1.0	6,550	4,000	1.00
WC8509	WC87509	1.7717 45	3.3465 85	.9449 24.000	.9449 24.000	.040 1.0	7,350	4,600	1.08
WC8510	WC87510	1.9685 50	3.5433 90	1.0236 26.000	1.0236 26.000	.040 1.0	7,900	5,200	1.26
WC8511	WC87511	2.1654 55	3.9370 100	1.0630 27.000	1.0630 27.000	.060 1.5	9,750	6,550	1.63

SINGLE ROW RADIAL BALL BEARINGS

Units: **INCHES**
Millimeters



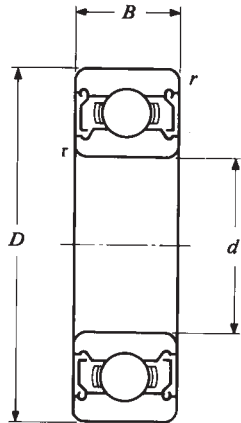
Bearing No.	Bore	O.D.	Inner Ring Width	Outer Ring Width	Fillet Radius	Basic Load Ratings (lbs)		Weight (lbs)
	<i>d</i>	<i>D</i>	<i>B_{ii}</i>	<i>T</i>	<i>r</i>	Dynamic <i>C</i>	Static <i>C₀</i>	
WC88006	.2362 6	.9449 24	.4970 12.624	.4063 10.320	.012 .3	750	315	.06
WC88007	.2756 7	.9449 24	.4970 12.624	.4063 10.320	.012 .3	900	355	.05
WC88008	.3150 8	.9449 24	.4970 12.624	.4063 10.320	.012 .3	900	355	.05
WC88009	.3543 9	1.1811 30	.6457 16.401	.5000 12.700	.025 .6	1,150	540	.11
WC88011	.4331 11	1.2598 32	.6063 15.400	.5000 12.700	.025 .6	1,370	315	.10
WC88013	.5118 13	1.2598 32	.6063 15.400	.5000 12.700	.025 .6	1,370	315	.10
WC88014	.5512 14	1.3780 35	.5669 14.399	.5000 12.700	.025 .6	1,740	805	.12
WC88016	.6299 16	1.3780 35	.5669 14.399	.5000 12.700	.025 .6	1,740	805	.12
WC88026	1.0236 26	2.0472 52	.6594 16.749	.6250 15.875	.040 1.0	3,150	1,770	.28
WC88035	.1969 5	.7480 19	.4970 12.624	.4063 10.320	.012 .3	525	199	.03
WC88036	.2362 6	.7480 19	.4970 12.624	.4063 10.320	.012 .3	525	199	.03
WC88037	.2756 7	.8661 22	.4970 12.624	.4063 10.320	.012 .3	750	315	.04
WC88038	.3150 8	.8661 22	.4970 12.624	.4063 10.320	.012 .3	750	315	.04
WC88039	.3543 9	1.0236 26	.4970 12.624	.4063 10.320	.025 .6	1,030	440	.06
WC88500	.3937 10	1.1811 30	.6457 16.401	.5000 12.700	.025 .6	1,150	540	.09
WC88501	.4724 12	1.2598 32	.6063 15.400	.5000 12.700	.025 .6	1,370	615	.10
WC88502	.5906 15	1.3780 35	.5669 14.399	.5000 12.700	.025 .6	1,740	805	.11
WC88503	.6693 17	1.5748 40	.6536 16.601	.5625 14.288	.025 .6	2,160	1,030	.17
WC88504	.7874 20	1.8504 47	.6988 17.750	.6250 15.875	.040 1.0	2,890	1,500	.25
WC88505	.9843 25	2.0472 52	.6594 16.749	.6250 15.875	.040 1.0	3,150	1,770	.29
WC88506	1.1811 30	2.4409 62	.9449 24.000	.7874 20.000	.040 1.0	4,400	2,540	.52
WC88507	1.3780 35	2.8346 72	.9843 25.000	.8268 21.000	.040 1.0	5,750	3,450	.74
WC88508	1.5748 40	3.1496 80	1.0630 27.000	.9449 24.000	.040 1.0	6,550	4,000	1.01
WC88509	1.7717 45	3.3465 85	1.0630 27.000	.9449 24.000	.040 1.0	7,350	4,600	1.10
WC88510	1.9685 50	3.5433 90	1.1811 30.000	1.0236 26.000	.040 1.0	7,900	5,200	1.30
WC88511	2.1654 55	3.9370 100	1.2205 31.000	1.0630 27.000	.060 1.5	9,150	6,550	1.66
WC88603	.6693 17	1.8504 47	.7087 18.000	.6299 16.000	.060 1.5	3,050	1,470	.64
WC88604	.7874 20	2.0472 52	.9055 23.000	.7480 19.000	.060 1.5	3,600	1,770	.91
WC88605	.9483 25	2.4409 62	.9843 25.000	.8268 21.000	.060 1.5	4,750	2,460	1.50



**Double Sealed
WC88000**

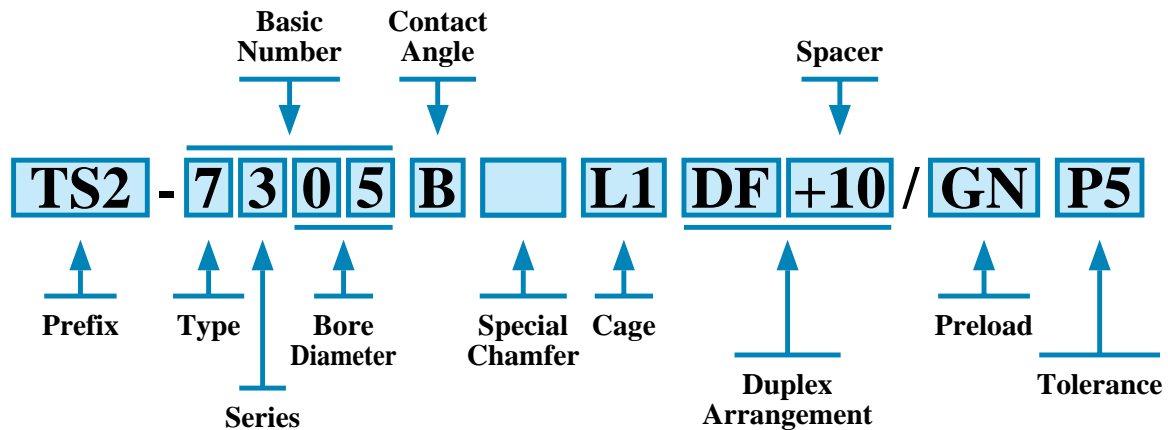


Units: INCHES
Millimeters



SINGLE ROW RADIAL BALL BEARINGS

Bearing No.	Bore <i>d</i>	O.D. <i>D</i>	Width <i>B</i>	Fillet Radius <i>r</i>	Basic Load Ratings (lbs)		Weight (lbs)
					Dynamic <i>C</i>	Static <i>C₀</i>	
63204ZZ	.7874 20	1.8504 47	.8110 20.6	.039 1.0	2,870	1,500	.34
05ZZ	.9843 25	2.0472 52	.8110 20.6	.039 1.0	3,150	1,770	.39
06ZZ	1.1811 30	2.4409 62	.9370 23.8	.039 1.0	4,400	2,540	.63
63207ZZ	1.3780 35	2.8346 72	1.0630 27.0	.043 1.1	5,750	3,450	.96
08ZZ	1.5748 40	3.1496 80	1.1890 30.2	.043 1.1	6,550	4,000	1.28
09ZZ	1.7717 45	3.3465 85	1.1890 30.2	.043 1.1	7,350	4,600	1.37
63210ZZ	1.9685 50	3.5433 90	1.1890 30.2	.043 1.1	7,900	5,200	1.45
11ZZ	2.1654 55	3.9370 100	1.3110 33.3	.059 1.5	9,750	6,550	2.04
12ZZ	2.3622 60	4.3307 110	1.4370 36.5	.059 1.5	11,800	8,150	2.80
63304ZZ	.7874 20	2.0472 52	.8740 22.2	.043 1.1	3,600	1,770	.48
05ZZ	.9843 25	2.4409 62	1.0000 25.4	.043 1.1	4,750	2,460	.78
06ZZ	1.1811 30	2.8346 72	1.1890 30.2	.043 1.1	6,000	3,400	1.13
63307ZZ	1.3780 35	3.1496 80	1.3740 34.9	.059 1.5	7,500	4,300	1.64
08ZZ	1.5748 40	3.5433 90	1.4370 36.5	.059 1.5	9,150	5,400	2.06
09ZZ	1.7717 45	3.9370 100	1.5630 39.7	.059 1.5	11,900	7,200	3.00
63310ZZ	1.9685 50	4.3307 110	1.7480 44.4	.079 2.0	13,900	8,600	3.75
11ZZ	2.1654 55	4.7244 120	1.9370 49.2	.079 2.0	16,100	10,100	5.12
12ZZ	2.3622 60	5.1181 130	2.1260 54.0	.083 2.1	18,400	11,700	6.50
63313ZZ	2.5591 65	5.5118 140	2.3110 58.7	.083 2.1	20,800	13,400	8.17
14ZZ	2.7559 70	5.9055 150	2.5000 63.5	.083 2.1	23,400	15,300	10.5
15ZZ	2.9528 75	6.2992 160	2.6890 68.3	.083 2.1	25,500	17,400	12.5
63316ZZ	3.1496 80	6.6929 170	2.6890 68.3	.083 2.1	27,600	19,500	14.1
17ZZ	3.3465 85	7.0866 180	2.8740 73.0	.118 3.0	29,800	21,800	16.9
18ZZ	3.5433 90	7.4803 190	2.8740 73.0	.118 3.0	32,000	24,100	18.7



1. PREFIX

- TS2: Heat stabilization for up to 320°F (160°C)
- TS3: Heat stabilization for up to 390°F (200°C)
- TS4: Heat stabilization for up to 480°F (250°C)
- BNT: High speed angular contact ball bearings
- HSB: High speed angular contact ball bearings
- SF: Special single row angular contact ball bearings
- DE & DF: Special double row angular contact ball bearings

2. TYPE

- 3: Double row angular contact ball bearings with filling slot
- 5: Double row angular contact ball bearings without filling slot
- 7: Angular contact ball bearings

3. CONTACT ANGLE

- No Symbol: Contact Angle 30°
- B: Contact angle 40°
- C: Contact angle 15°

4. CHAMFER

- Xn: Special chamfer, from 1 onward (X1, X2 . . .)

5. CAGE

- No Symbol: Standard cage
- J: Pressed steel cage
- L1: Machined brass cage
- T1: Phenolic cage
- T2: Plastic cage, nylon or teflon

6. DUPLEX ARRANGEMENT

- DB: Duplex pair, back to back mounting
- DF: Duplex pair, face to face mounting
- DT: Duplex pair, tandem mounting
- G: Single bearings, flush ground universal mount for DB, DF and DT arrangement
- GD2: Pair of universally mountable bearings
- +A: Spacer (A is nominal width of spacer in mm)

7. PRELOAD

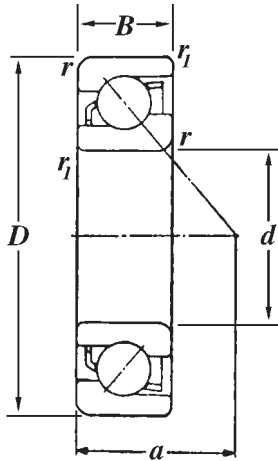
- GL: Light preload
- GN: Normal preload
- GM: Medium preload
- GH: Heavy preload
- Gn: Special preload

8. TOLERANCE

- P6: ISO class 6 (equivalent to ABEC 3)
- P5: ISO class 5 (equivalent to ABEC 5)
- P4: ISO class 4 (equivalent to ABEC 7)



Units: INCHES
Millimeters



40°
Contact Angle
72B

SINGLE ROW ANGULAR CONTACT BALL BEARINGS

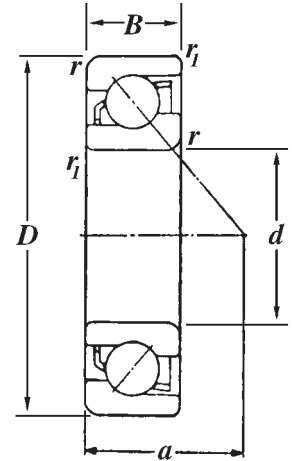
Bearing No.	Bore <i>d</i>	O.D. <i>D</i>	Width <i>B</i>	Fillet Radius		Load Center <i>a</i>	Basic Load Ratings (lbs)		Weight (lbs)
				<i>r</i>	<i>r</i> ₁		Dynamic <i>C</i>	Static <i>C</i> ₀	
7200B	.3937	1.1811	.3543	.039	.020	.51	1,120	565	.064
01B	.4724	1.2598	.3937	.039	.020	.55	1,480	750	.079
02B	.5906	1.3780	.4331	.039	.020	.63	1,880	980	.101
7203B	.6693	1.5748	.4724	.039	.020	.72	2,480	1,370	.146
04B	.7874	1.8504	.5512	.059	.031	.85	2,990	1,730	.225
05B	.9843	2.0472	.5906	.059	.031	.94	3,300	2,120	.284
7206B	1.1811	2.4409	.6299	.059	.031	1.08	4,600	3,050	.434
07B	1.3780	2.8346	.6693	.079	.039	1.22	6,100	4,150	.633
08B	1.5748	3.1496	.7087	.079	.039	1.34	7,200	5,150	.827
7209B	1.7717	3.3465	.7480	.079	.039	1.46	8,100	5,900	.904
10B	1.9685	3.5433	.7874	.079	.039	1.56	8,400	6,450	1.03
11B	2.1654	3.9370	.8268	.098	.047	1.69	10,400	8,100	1.35
7212B	2.3622	4.3307	.8661	.098	.047	1.87	12,600	10,000	1.72
13B	2.5591	4.7244	.9055	.098	.047	1.99	14,300	11,800	2.16
14B	2.7559	4.9213	.9449	.098	.047	2.09	15,500	13,000	2.45
7215B	2.9528	5.1181	.9843	.098	.047	2.20	16,000	14,000	2.62
16B	3.1496	5.5118	1.0236	.118	.059	2.32	18,100	15,600	3.13
17B	3.3465	5.9055	1.1024	.118	.059	2.50	20,200	18,100	4.01
7218B	3.5433	6.2992	1.1811	.118	.059	2.66	24,000	21,100	4.89
19B	3.7402	6.6929	1.2598	.138	.079	2.81	27,200	24,200	6.00
20B	3.9370	7.0866	1.3386	.138	.079	2.99	29,300	25,700	7.19
7221B	4.1339	7.4803	1.4173	.138	.079	3.15	32,000	29,000	8.53
22B	4.3307	7.8740	1.4961	.138	.079	3.31	34,500	32,500	10.0
24B	4.7244	8.4646	1.5748	.138	.079	3.56	37,000	36,500	13.8
7226B	5.1181	9.0551	1.5748	.157	.079	3.76	40,000	40,500	15.8
28B	5.5118	9.8425	1.6535	.157	.079	4.06	41,000	44,000	19.4
30B	5.9055	10.6299	1.7717	.157	.079	4.37	47,000	53,000	24.3
7232B	6.2992	11.4173	1.8898	.157	.079	4.65	53,500	62,500	30.2
34B	6.6929	12.2047	2.0472	.157	.079	5.00	60,000	73,500	37.5
36B	7.0866	12.5984	2.0472	.157	.079	5.16	62,000	78,500	39.0
7238B	7.4803	13.3858	2.1654	.157	.079	5.47	61,500	79,500	47.0
40B	7.8740	14.1732	2.2835	.157	.079	5.75	68,500	91,500	55.8

SINGLE ROW ANGULAR CONTACT BALL BEARINGS

Units: **INCHES**
Millimeters



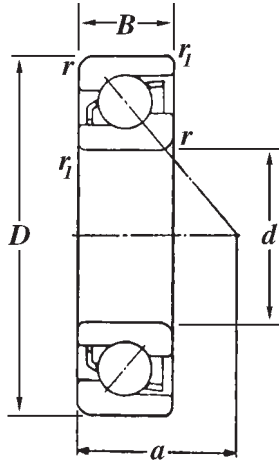
Bearing No.	Bore		Width <i>B</i>	Fillet Radius		Load Center <i>a</i>	Basic Load Ratings (lbs)		Weight (lbs)
	<i>d</i>	<i>D</i>		<i>r</i>	<i>r_f</i>		Dynamic <i>C</i>	Static <i>C₀</i>	
7300B	.3937	1.3780	.4331	.039	.020	.59	2,140	1,040	.090
	10	35	11	1	.5	15			
01B	.4724	1.4567	.4724	.059	.031	.6496	2,370	1,110	.099
	12	37	12	1.5	0.8	16.5			
02B	.5906	1.6535	.5118	.059	.031	.7480	2,810	1,500	.126
	15	42	13	1.5	.8	19			
7303B	.6693	1.8504	.5512	.059	.031	.81	3,350	1,800	.240
	17	47	14	1.5	.8	20.5			
04B	.7874	2.0472	.5906	.079	.039	.89	3,900	2,170	.311
	20	52	15	2	1	22.5			
05B	.9843	2.4409	.6693	.079	.039	1.06	5,500	3,300	.516
	25	62	17	2	1	27			
7306B	1.1811	2.8346	.7480	.079	.039	1.24	6,950	4,600	.776
	30	72	19	2	1	31.5			
07B	1.3780	3.1496	.8268	.098	.047	1.36	8,250	5,450	1.03
	35	80	21	2.5	1.2	34.5			
08B	1.5748	3.5433	.9055	.098	.047	1.54	10,100	6,800	1.40
	40	90	23	2.5	1.2	39			
7309B	1.7717	3.9370	.9843	.098	.047	1.69	13,100	9,050	1.88
	45	100	25	2.5	1.2	43			
10B	1.9685	4.3307	1.0630	.118	.059	1.85	15,300	10,800	2.45
	50	110	27	3	1.5	47			
11B	2.1654	4.7244	1.1417	.118	.059	2.05	17,700	12,800	3.13
	55	120	29	3	1.5	52			
7312B	2.3622	5.1181	1.2205	.138	.079	2.20	20,200	14,800	3.90
	60	130	31	3.5	2	56			
13B	2.5591	5.5118	1.2992	.138	.079	2.34	22,900	17,000	4.72
	65	140	33	3.5	2	59.5			
14B	2.7559	5.9055	1.3780	.138	.079	2.50	25,700	19,300	5.75
	70	150	35	3.5	2	63.5			
7315B	2.9528	6.2992	1.4567	.138	.079	2.68	28,000	21,900	6.90
	75	160	37	3.5	2	68			
16B	3.1496	6.6929	1.5354	.138	.079	2.83	30,500	24,600	8.20
	80	170	39	3.5	2	72			
17B	3.3465	7.0866	1.6142	.157	.079	2.99	32,500	27,400	9.77
	85	180	41	4	2	76			
7318B	3.5433	7.4803	1.6929	.157	.079	3.17	35,000	30,500	11.4
	90	190	43	4	2	80.5			
19B	3.7402	7.8740	1.7717	.157	.079	3.33	37,500	33,500	13.2
	95	200	45	4	2	84.5			
20B	3.9370	8.4646	1.8504	.157	.079	3.52	43,000	40,000	16.1
	100	215	47	4	2	89.5			
7321B	4.1339	8.8583	1.9291	.157	.079	3.68	45,500	43,500	18.4
	105	225	49	4	2	93.5			
22B	4.3307	9.4488	1.9685	.157	.079	3.90	51,000	51,000	21.6
	110	240	50	4	2	99			
24B	4.7244	10.2362	2.1654	.157	.079	4.21	50,500	52,000	32.4
	120	260	55	4	2	107			
7326B	5.1181	11.0236	2.2835	.157	.079	4.53	56,000	60,500	38.8
	130	280	58	4	2	115			
28B	5.5118	11.8110	2.4409	.157	.079	4.84	62,000	69,500	47.4
	140	300	62	4	2	123			
30B	5.9055	12.5984	2.5591	.157	.079	5.16	67,500	79,000	55.3
	150	320	65	4	2	131			
7332B	6.2992	13.3858	2.6772	.157	.079	5.47	71,000	87,000	65.7
	160	340	68	4	2	139			
34B	6.6929	14.1732	2.8346	.157	.079	5.79	80,000	100,000	77.8
	170	360	72	4	2	147			
36B	7.0866	14.9606	2.9528	.157	.079	6.10	84,000	110,000	90.2
	180	380	75	4	2	155			
7338B	7.4803	15.7480	3.0709	.197	.079	6.42	87,500	120,000	104
	190	400	78	5	2	163			
40B	7.8740	16.5354	3.1496	.197	.079	6.69	92,000	125,000	117
	200	420	80	5	2	170			



40°
Contact Angle
73B



Units: INCHES
Millimeters



40°
Contact Angle
74B

SINGLE ROW ANGULAR CONTACT BALL BEARINGS

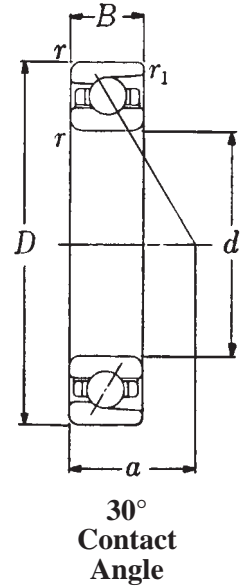
Bearing No.	Bore		O.D.		Width		Fillet Radius		Load Center	Basic Load Ratings (lbs)		Weight (lbs)
	<i>d</i>	<i>D</i>	<i>B</i>	<i>r</i>	<i>r₁</i>	<i>a</i>	<i>C</i>	<i>C_o</i>				
7404B	.7874 20	2.8346 72	.7480 19	.043 1.1	.024 .6	1.14 29	6,850	3,650	1.00			
06B	1.1811 30	3.5433 90	.9843 25	.059 1.5	.039 1	1.46 37	9,100	5,450	1.83			
07B	1.3780 35	3.9370 100	.9843 25	.059 1.5	.039 1	1.61 41	11,600	7,350	2.45			
7408B	1.5748 40	4.3307 110	1.0630 27	.079 2	.039 1	1.77 45	13,600	8,500	3.09			
09B	1.7717 45	4.7244 120	1.1417 29	.079 2	.039 1	1.95 49.5	16,800	11,100	3.94			
10B	1.9685 50	5.1181 130	1.2205 31	.083 2.1	.043 1.1	2.11 53.5	19,100	12,800	4.87			
7411B	2.1654 55	5.5118 140	1.2992 33	.083 2.1	.043 1.1	2.26 57.5	20,300	13,900	6.02			
12B	2.3622 60	5.9055 150	1.3780 35	.083 2.1	.043 1.1	2.44 62	22,800	15,900	7.25			
13B	2.5591 65	6.2992 160	1.4567 37	.083 2.1	.043 1.1	2.60 66	26,500	19,800	8.77			
7414B	2.7559 70	7.0866 180	1.6535 42	.118 3	.043 1.1	2.89 73.5	31,000	24,900	12.7			
15B	2.9528 75	7.4803 190	1.7717 45	.118 3	.043 1.1	3.09 78.5	33,500	27,000	15.0			
16B	3.1496 80	7.8740 200	1.8898 48	.118 3	.043 1.1	3.27 83	35,500	29,800	17.5			
7417B	3.3465 85	8.2677 210	2.0472 52	.157 4	.059 1.5	3.46 88	39,500	33,500	20.4			
18B	3.5433 90	8.8583 225	2.1260 54	.157 4	.059 1.5	3.68 93.5	45,000	44,000	24.9			

SINGLE ROW ANGULAR CONTACT BALL BEARINGS

Units: **INCHES**
Millimeters



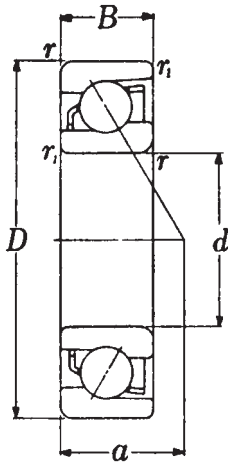
Bearing No.	Bore		O.D.	Width	Fillet Radii		Load Center	Basic Load Ratings (lbs)		Weight (lbs)
	<i>d</i>	<i>D</i>			<i>B</i>	<i>r</i>		<i>r₁</i>	<i>a</i>		Dynamic C	Static C_{0}
7000	.3937	1.0236	.3150	.020	.012	.35	1,040	465	.049	
	10	26	8	.5	.3	9.0				
01	.4724	1.1024	.3150	.020	.012	.39	1,140	555	.053	
	12	28	8	.5	.3	10.0				
02	.5906	1.2598	.3543	.020	.012	.45	1,300	705	.077	
	15	32	9	.5	.3	11.5				
7003	.6693	1.3780	.3937	.020	.012	.49	1,610	860	.099	
	17	35	10	.5	.3	12.5				
04	.7874	1.6535	.4724	.039	.020	.59	2,180	1,260	.174	
	20	42	12	1.0	.5	15.0				
05	.9843	1.8504	.4724	.039	.020	.65	2,420	1,540	.201	
	25	47	12	1.0	.5	16.5				
7006	1.1811	2.1654	.5118	.059	.031	.75	3,100	2,130	.293	
	30	55	13	1.5	.8	19.0				
07	1.3780	2.4409	.5512	.059	.031	.83	3,950	2,830	.403	
	35	62	14	1.5	.8	21.0				
08	1.5748	2.6772	.5906	.059	.031	.91	4,200	3,300	.481	
	40	68	15	1.5	.8	23.0				
7009	1.7717	2.9528	.6299	.059	.031	1.00	5,000	3,950	.613	
	45	75	16	1.5	.8	25.5				
10	1.9685	3.1496	.6299	.059	.031	1.06	5,300	4,500	.677	
	50	80	16	1.5	.8	27.0				
11	2.1654	3.5433	.7087	.079	.039	1.18	7,000	5,900	.924	
	55	90	18	2.0	1.0	30.0				
7012	2.3622	3.7402	.7087	.079	.039	1.24	7,150	6,300	.990	
	60	95	18	2.0	1.0	31.5				
13	2.5591	3.9370	.7087	.079	.039	1.30	7,600	7,050	1.05	
	65	100	18	2.0	1.0	33.0				
14	2.7559	4.3307	.7874	.079	.039	1.42	9,600	8,850	1.58	
	70	110	20	2.0	1.0	36.0				
7015	2.9528	4.5276	.7874	.079	.039	1.48	9,800	9,400	1.67	
	75	115	20	2.0	1.0	37.5				
16	3.1496	4.9213	.8661	.079	.039	1.59	12,000	11,400	2.16	
	80	125	22	2.0	1.0	40.5				
17	3.3465	5.1181	.8661	.079	.039	1.65	12,300	12,000	2.43	
	85	130	22	2.0	1.0	42.0				
7018	3.5433	5.5118	.9449	.098	.047	1.77	14,700	14,200	3.09	
	90	140	24	2.5	1.2	45.0				
19	3.7402	5.7087	.9449	.098	.047	1.83	15,000	15,000	3.26	
	95	145	24	2.5	1.2	46.5				
20	3.9370	5.9055	.9449	.098	.047	1.89	15,400	15,900	3.35	
	100	150	24	2.5	1.2	48.0				
7021	4.1339	6.2992	1.0236	.118	.059	2.03	18,000	18,400	4.21	
	105	160	26	3.0	1.5	51.5				
22	4.3307	6.6929	1.1024	.118	.059	2.15	20,600	20,900	5.29	
	110	170	28	3.0	1.5	54.5				
24	4.7244	7.0866	1.1024	.118	.059	2.26	21,100	22,200	5.73	
	120	180	28	3.0	1.5	57.5				
7026	5.1181	7.8740	1.2992	.118	.059	2.52	26,400	28,200	8.64	
	130	200	33	3.0	1.5	64.0				
28	5.5118	8.2677	1.2992	.118	.059	2.64	26,900	29,800	9.17	
	140	210	33	3.0	1.5	67.0				
30	5.9055	8.8583	1.3780	.138	.079	2.81	31,000	34,500	10.7	
	150	225	35	3.5	2.0	71.5				
7032	6.2992	9.4488	1.4961	.138	.079	3.03	35,000	39,500	13.0	
	160	240	38	3.5	2.0	77.0				
34	6.6929	10.2362	1.6535	.138	.079	3.27	42,000	48,000	17.4	
	170	260	42	3.5	2.0	83.0				
36	7.0866	11.0236	1.8110	.138	.079	3.52	49,000	59,500	22.0	
	180	280	46	3.5	2.0	89.5				
7038	7.4803	11.4173	1.8110	.138	.079	3.64	50,500	63,000	23.6	
	190	290	46	3.5	2.0	92.5				
40	7.8740	12.2047	2.0079	.138	.079	3.90	56,500	73,000	30.4	
	200	310	51	3.5	2.0	99.0				





Units: INCHES
Millimeters

SINGLE ROW ANGULAR CONTACT BALL BEARINGS



30°
Contact Angle
72

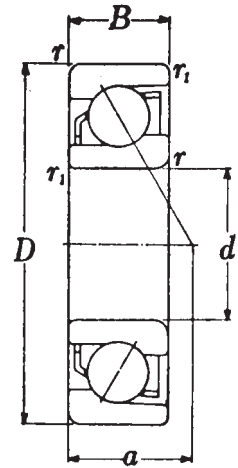
Bearing No.	Bore		O.D.	Width	Fillet Radius		Load Center	Basic Load Ratings (lbs)		Weight (lbs)
	<i>d</i>	<i>D</i>			<i>B</i>	<i>r</i>		<i>r₁</i>	<i>a</i>		Dynamic C	Static C_{o}
7200	.3937	1.1811	.3543	.039	.020	.41	1,220	615	.064	
01	.4724	1.2598	.3937	.039	.020	.45	1,600	810	.077	
02	.5906	1.3780	.4331	.039	.020	.49	2,040	1,060	.101	
7203	.6693	1.5748	.4724	.039	.020	.57	2,690	1,490	.141	
04	.7874	1.8504	.5512	.059	.031	.67	3,250	1,890	.220	
05	.9843	2.0472	.5906	.059	.031	.75	3,650	2,320	.276	
7206	1.1811	2.4409	.6299	.059	.031	.85	5,050	3,350	.425	
07	1.3780	2.8346	.6693	.079	.039	.94	6,700	4,500	.619	
08	1.5748	3.1496	.7087	.079	.039	1.04	7,950	5,650	.783	
7209	1.7717	3.3465	.7480	.079	.039	1.12	8,900	6,450	.891	
10	1.9685	3.5433	.7874	.079	.039	1.18	9,300	7,050	1.01	
11	2.1654	3.9370	.8268	.098	.047	1.30	11,500	8,900	1.32	
7212	2.3622	4.3307	.8661	.098	.047	1.42	13,900	11,000	1.69	
13	2.5591	4.7244	.9055	.098	.047	1.50	15,800	13,000	2.12	
14	2.7559	4.9213	.9449	.098	.047	1.57	17,200	14,300	2.40	
7215	2.9528	5.1181	.9843	.098	.047	1.67	17,800	15,400	2.58	
16	3.1496	5.5118	1.0236	.118	.059	1.77	20,000	17,100	3.06	
17	3.3465	5.9055	1.1024	.118	.059	1.89	22,400	19,900	3.92	
7218	3.5433	6.2992	1.1811	.118	.059	2.01	26,500	23,200	4.81	
19	3.7402	6.6929	1.2598	.138	.079	2.15	30,000	26,500	5.89	
20	3.9370	7.0866	1.3386	.138	.079	2.26	32,500	28,200	7.05	
7221	4.1339	7.4803	1.4173	.138	.079	2.38	35,000	32,000	8.36	
22	4.3307	7.8740	1.4961	.138	.079	2.52	38,000	35,500	9.81	
24	4.7244	8.4646	1.5748	.138	.079	2.70	41,000	40,000	13.8	
7226	5.1181	9.0551	1.5748	.157	.079	2.83	44,000	44,500	15.8	
28	5.5118	9.8425	1.6535	.157	.079	3.05	45,500	48,500	19.4	
30	5.9055	10.6299	1.7717	.157	.079	3.27	52,000	58,000	24.3	
7232	6.2992	11.4173	1.8898	.157	.079	3.50	59,000	69,000	30.2	
34	6.6929	12.2047	2.0472	.157	.079	3.76	66,000	80,500	37.5	
36	7.0866	12.5984	2.0472	.157	.079	3.86	68,500	86,500	39.0	
7238	7.4803	13.3858	2.1654	.157	.079	4.09	68,000	87,500	47.0	
40	7.8740	14.1732	2.2835	.157	.079	4.33	76,000	101,000	55.8	

SINGLE ROW ANGULAR CONTACT BALL BEARINGS

Units: INCHES
Millimeters



Bearing No.	Bore		Width <i>B</i>	Fillet Radius		Load Center <i>a</i>	Basic Load Ratings (lbs)		Weight (lbs)
	<i>d</i>	O.D. <i>D</i>		<i>r</i>	<i>r₁</i>		Dynamic <i>C</i>	Static <i>C₀</i>	
7300	.3937 10 35	1.3780 35	.4331 11	.039 1	.020 .5	.47 12	2,280	11,100	.088
01	.4724 12 37	1.4567 37	.4724 12	.059 1.5	.031 .8	.5118 13	2,510	1,180	.097
02	.5906 15 42	1.6535 42	.5118 13	.059 1.5	.031 .8	.5906 15	3,000	1,620	.121
7303	.6693 17 47	1.8504 47	.5512 14	.059 1.5	.031 .8	.63 16	3,600	1,940	.236
04	.7874 20 52	2.0472 52	.5906 15	.079 2	.039 1	.71 18	4,200	2,340	.304
05	.9843 25 62	2.4409 62	.6693 17	.079 2	.039 1	.83 21	5,950	3,550	.507
7306	1.1811 30 72	2.8346 72	.7480 19	.079 2	.039 1	.96 24.5	7,550	5,000	.761
07	1.3780 35 80	3.1496 80	.8268 21	.098 2.5	.047 1.2	1.06 27	9,000	5,900	1.02
08	1.5748 40 90	3.5433 90	.9055 23	.098 2.5	.047 1.2	1.20 30.5	11,000	7,400	1.38
7309	1.7717 45 100	3.9370 100	.9843 25	.098 2.5	.047 1.2	1.32 33.5	14,300	9,800	1.85
10	1.9685 50 110	4.3307 110	1.0630 27	.118 3	.059 1.5	1.44 36.5	16,700	11,700	2.40
11	2.1654 55 120	4.7244 120	1.1417 29	.118 3	.059 1.5	1.57 40	19,300	13,900	3.06
7312	2.3622 60 130	5.1181 130	1.2205 31	.138 3.5	.079 2	1.69 43	22,000	16,100	3.84
13	2.5591 65 140	5.5118 140	1.2992 33	.138 3.5	.079 2	1.81 46	25,000	18,400	4.65
14	2.7559 70 150	5.9055 150	1.3780 35	.138 3.5	.079 2	1.95 49.5	28,000	21,000	5.64
7315	2.9528 75 160	6.2992 160	1.4567 37	.138 3.5	.079 2	2.07 52.5	30,500	23,800	6.77
16	3.1496 80 170	6.6929 170	1.5354 39	.138 3.5	.079 2	2.19 55.5	33,000	26,700	8.05
17	3.3465 85 180	7.0866 180	1.6142 41	.157 4	.079 2	2.32 59	35,500	29,800	9.57
7318	3.5433 90 190	7.4803 190	1.6929 43	.157 4	.079 2	2.44 62	38,500	33,000	11.2
19	3.7402 95 200	7.8740 200	1.7717 45	.157 4	.079 2	2.56 65	41,000	36,500	13.0
20	3.9370 100 215	8.4646 215	1.8504 47	.157 4	.079 2	2.72 69	46,500	43,500	15.8
7321	4.1339 105 225	8.8583 225	1.9291 49	.157 4	.079 2	2.83 72	49,500	47,500	18.1
22	4.3307 110 240	9.4488 240	1.9685 50	.157 4	.079 2	2.99 76	52,000	50,500	21.2
24	4.7244 120 260	10.2362 260	2.1654 55	.157 4	.079 2	3.25 82.5	55,500	56,500	32.4
7326	5.1181 130 280	11.0236 280	2.2835 58	.157 4	.079 2	3.46 88	61,500	66,000	38.8
28	5.5118 140 300	11.8110 300	2.4409 62	.157 4	.079 2	3.72 94.5	67,500	75,500	47.4
30	5.9055 150 320	12.5984 320	2.5591 65	.157 4	.079 2	3.94 100	74,000	86,000	55.3
7332	6.2992 160 340	13.3858 340	2.6772 68	.157 4	.079 2	4.17 106	78,000	95,000	65.7
34	6.6929 170 360	14.1732 360	2.8346 72	.157 4	.079 2	4.45 113	87,500	109,000	77.8
36	7.0866 180 380	14.9606 380	2.9528 75	.157 4	.079 2	4.65 118	92,000	120,000	90.2
7338	7.4803 190 400	15.7480 400	3.0709 78	.197 5	.079 2	4.88 124	96,500	131,000	104
40	7.8740 200 420	16.5354 420	3.1496 80	.197 5	.079 2	5.12 130	101,000	137,000	117



30°
Contact Angle
73

NTN

SERIES 70C

High Precision Grade

Suffix P5

- AFBMA RBEC 5 •
- ISO Class 5 •

Suffix P4

- AFBMA ABEC 7 •
- ISO Class 4 •

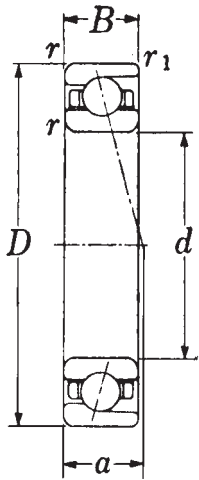
Suffix P2

- AFBMA ABEC 9 •
- ISO Class 2 •

Units: **INCHES**
Millimeters

SINGLE ROW ANGULAR CONTACT BALL BEARINGS


Bearing No.	Bore <i>d</i>	O.D. <i>D</i>	Width <i>B</i>	Fillet Radii		Load Center <i>a</i>	Basic Load Ratings (lbs)		Weight (lbs)
				<i>r</i>	<i>r₁</i>		Dynamic <i>C</i>	Static <i>C₀</i>	
7000C	.3937 10	1.0236 26	.3150 8	.039 1.0	.020 .5	.26 6.5	1,790	990	.042
01C	.4724 12	1.1024 28	.3150 8	.039 1.0	.020 .5	.26 6.5	1,220	595	.046
7002C	.5906 15	1.2598 32	.3543 9	.039 1.0	.020 .5	.30 7.5	1,400	760	.064
03C	.6693 17	1.3780 35	.3937 10	.039 1.0	.020 .5	.33 8.5	1,740	925	.084
04C	.7874 20	1.6535 42	.4724 12	.039 1.0	.020 .5	.39 10.0	2,360	1,360	.146
7005C	.9843 25	1.8504 47	.4724 12	.039 1.0	.020 .5	.43 11.0	2,630	1,670	.132
06C	1.1811 30	2.1654 55	.5118 13	.059 1.5	.031 .8	.49 12.5	3,400	2,310	.196
07C	1.3780 35	2.4409 62	.5512 14	.059 1.5	.031 .8	.53 13.5	4,300	3,050	.287
7008C	1.5748 40	2.6772 68	.5906 15	.059 1.5	.031 .8	.57 14.5	4,600	3,550	.357
09C	1.7717 45	2.9528 75	.6299 16	.059 1.5	.031 .8	.63 16.0	5,500	4,350	.461
10C	1.9685 50	3.1496 80	.6299 16	.059 1.5	.031 .8	.65 16.5	5,850	4,900	.514
7011C	2.1654 55	3.5433 90	.7087 18	.079 2.0	.039 1.0	.73 18.5	7,650	6,450	.712
12C	2.3622 60	3.7402 95	.7087 18	.079 2.0	.039 1.0	.77 19.5	7,900	6,900	.772
13C	2.5591 65	3.9370 100	.7087 18	.079 2.0	.039 1.0	.79 20.0	8,350	7,700	.840
7014C	2.7559 70	4.3307 110	.7874 20	.079 2.0	.039 1.0	.87 22.0	10,500	9,650	1.28
15C	2.9528 75	4.5276 115	.7874 20	.079 2.0	.039 1.0	.89 22.5	10,800	10,300	1.33
16C	3.1496 80	4.9213 125	.8661 22	.079 2.0	.039 1.0	.96 24.5	13,200	12,400	1.72
7017C	3.3465 85	5.1181 130	.8661 22	.079 2.0	.039 1.0	1.00 25.5	13,500	13,200	1.94
18C	3.5433 90	5.5118 140	.9449 24	.098 2.5	.047 1.2	1.08 27.5	16,100	15,500	2.47
19C	3.7402 95	5.7087 145	.9449 24	.098 2.5	.047 1.2	1.10 28.0	16,500	16,500	2.60
7020C	3.9370 100	5.9055 150	.9449 24	.098 2.5	.047 1.2	1.12 28.5	16,900	17,400	2.69
21C	4.1339 105	6.2992 160	1.0236 26	.118 3.0	.059 1.5	1.22 31.0	19,800	20,100	3.37
22C	4.3307 110	6.6929 170	1.1024 28	.118 3.0	.059 1.5	1.30 33.0	22,700	22,800	4.23
7024C	4.7244 120	7.0866 180	1.1024 28	.118 3.0	.059 1.5	1.34 34.0	23,200	24,300	4.74
26C	5.1181 130	7.8740 200	1.2992 33	.118 3.0	.059 1.5	1.52 38.5	29,000	31,000	7.14
28C	5.5118 140	8.2677 210	1.2992 33	.118 3.0	.059 1.5	1.57 40.0	29,700	32,500	7.58
7030C	5.9055 150	8.8583 225	1.3780 35	.138 3.5	.079 2.0	1.67 42.5	34,000	38,000	10.7
32C	6.2992 160	9.4488 240	1.4961 38	.138 3.5	.079 2.0	1.81 46.0	38,500	43,500	13.0
34C	6.6929 170	10.2362 260	1.6535 42	.138 3.5	.079 2.0	1.97 50.0	46,000	52,500	17.4
7026C	7.0866 180	11.0236 280	1.8110 46	.138 3.5	.079 2.0	2.13 54.0	54,000	65,500	22.0
38C	7.4803 190	11.4173 290	1.8110 46	.138 3.5	.079 2.0	2.17 55.0	55,500	69,000	23.6
40C	7.8740 200	12.2047 310	2.0079 51	.138 3.5	.079 2.0	2.34 59.5	62,000	80,000	30.4



15°
Contact Angle

SINGLE ROW ANGULAR CONTACT BALL BEARINGS

Units: **INCHES**
Millimeters



**SERIES
72C**

**High
Precision
Grade**

Suffix P5

- AFBMA RBEC 5 •
- ISO Class 5 •

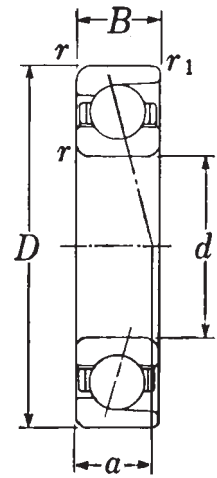
Suffix P4

- AFBMA ABEC 7 •
- ISO Class 4 •

Suffix P2

- AFBMA ABEC 9 •
- ISO Class 2 •

Bearing No.	Bore	O.D.	Width <i>B</i>	Fillet Radii		Load Center <i>a</i>	Basic Load Ratings (lbs)		Weight (lbs)
	<i>d</i>	<i>D</i>		<i>r</i>	<i>r₁</i>		Dynamic <i>C</i>	Static <i>C₀</i>	
7200C	.3937 10	1.1811 30	.3543 9	.039 1.0	.020 .5	.28 7.0	1,220	595	.037
01C	.4724 12	1.2598 32	.3937 10	.039 1.0	.020 .5	.31 8.0	1,590	780	.049
02C	.5906 15	1.3780 35	.4331 11	.039 1.0	.020 .5	.35 9.0	2,020	1,010	.068
7203C	.6693 17	1.5748 40	.4724 12	.039 1.0	.020 .5	.39 10.0	2,510	1,310	.106
04C	.7874 20	1.8504 47	.5512 14	.059 1.5	.031 .8	.45 11.5	3,300	1,840	.181
05C	.9843 25	2.0472 52	.5906 15	.059 1.5	.031 .8	.49 12.5	3,750	2,300	.249
7206C	1.1811 30	2.4409 62	.6299 16	.059 1.5	.031 .8	.55 14.0	5,200	3,300	.395
07C	1.3780 35	2.8346 72	.6693 17	.079 2.0	.039 1.0	.61 15.5	6,850	4,500	.578
08C	1.5748 40	3.1496 80	.7087 18	.079 2.0	.039 1.0	.67 17.0	8,150	5,650	.752
7209C	1.7717 45	3.3465 85	.7480 19	.079 2.0	.039 1.0	.71 18.0	9,200	6,500	.858
10C	1.9685 50	3.5433 90	.7874 20	.079 2.0	.039 1.0	.77 19.5	9,650	7,150	.963
11C	2.1654 55	3.9370 100	.8268 21	.098 2.5	.047 1.2	.83 21.0	11,900	9,000	1.27
7212C	2.3622 60	4.3307 110	.8661 22	.098 2.5	.047 1.2	.89 22.5	14,400	11,100	1.66
13C	2.5591 65	4.7244 120	.9055 23	.098 2.5	.047 1.2	.94 24.0	15,700	12,300	2.07
14C	2.7559 70	4.9213 125	.9449 24	.098 2.5	.047 1.2	.98 25.0	17,100	13,500	2.34
7215C	2.9528 75	5.1181 130	.9843 25	.098 2.5	.047 1.2	1.04 26.5	17,800	14,700	2.56
16C	3.1496 80	5.5118 140	1.0236 26	.118 3.0	.059 1.5	1.08 27.5	20,900	17,400	3.04
17C	3.3465 85	5.9055 150	1.1024 28	.118 3.0	.059 1.5	1.18 30.0	23,400	20,300	3.88
7218C	3.5433 90	6.2992 160	1.1811 30	.118 3.0	.059 1.5	1.24 31.5	27,600	23,500	4.76
19C	3.7402 95	6.6929 170	1.2598 32	.138 3.5	.079 2.0	1.34 34.0	31,000	26,900	5.82
20C	3.9370 100	7.0866 180	1.3386 34	.138 3.5	.079 2.0	1.42 36.0	33,500	28,500	6.99
7221C	4.1339 105	7.4803 190	1.4173 36	.138 3.5	.079 2.0	1.50 38.0	36,500	32,000	8.27
22C	4.3307 110	7.8740 200	1.4961 38	.138 3.5	.079 2.0	1.57 40.0	39,500	36,000	9.72



**15°
Contact
Angle**

NTN

**SERIES
73C**

**High
Precision
Grade**

Suffix P5

- AFBMA RBEC 5 •
- ISO Class 5 •

Suffix P4

- AFBMA ABEC 7 •
- ISO Class 4 •

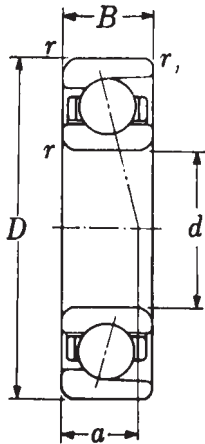
Suffix P2

- AFBMA ABEC 9 •
- ISO Class 2 •

Units: **INCHES**
Millimeters

SINGLE ROW ANGULAR CONTACT BALL BEARINGS


Bearing No.	Bore <i>d</i>	O.D. <i>D</i>	Width <i>B</i>	Fillet Radii		Load Center <i>a</i>	Basic Load Ratings (lbs)		Weight (lbs)
				<i>r</i>	<i>r_f</i>		Dynamic <i>C</i>	Static <i>C₀</i>	
7302C	.5906 15	1.6535 42	.5118 13	.059 1.5	.031 .8	.41 10.5	2,990	1,540	.130
7303C	.6693 17	1.8504 47	.5512 14	.059 1.5	.031 .8	.45 11.5	3,550	1,860	.190
04C	.7874 20	2.0472 52	.5906 15	.079 2.0	.039 1.0	.49 12.5	1,450	2,240	.260
05C	.9843 25	2.4409 62	.6693 17	.079 2.0	.039 1.0	.57 14.5	5,950	3,450	.445
7306C	1.1811 30	2.8346 72	.7480 19	.079 2.0	.039 1.0	.65 16.5	7,250	4,550	.690
07C	1.3780 35	3.1496 80	.8268 21	.098 2.5	.047 1.2	.71 18.0	9,050	5,800	.939
08C	1.5748 40	3.5433 90	.9055 23	.098 2.5	.047 1.2	.79 20.0	11,100	7,250	1.36
7309C	1.7717 45	3.9370 100	.9843 25	.098 2.5	.047 1.2	.89 22.5	14,400	9,700	1.82
10C	1.9685 50	4.3307 110	1.0630 27	.118 3.0	.059 1.5	.96 24.5	16,900	11,600	2.31
11C	2.1654 55	4.7244 120	1.1417 29	.118 3.0	.059 1.5	1.04 26.5	19,500	13,600	2.93
7312C	2.3622 60	5.1181 130	1.2205 31	.138 3.5	.079 2.0	1.12 28.5	22,300	15,800	3.70
13C	2.5591 65	5.5118 140	1.2992 33	.138 3.5	.079 2.0	1.18 30.0	25,200	18,100	4.52
14C	2.7559 70	5.9055 150	1.3780 35	.138 3.5	.079 2.0	1.26 32.0	28,400	20,700	5.47
7315C	2.9528 75	6.2992 160	1.4567 37	.138 3.5	.079 2.0	1.34 34.0	31,000	23,400	6.79
16C	3.1496 80	6.6929 170	1.5354 39	.138 3.5	.079 2.0	1.42 36.0	33,500	26,200	8.14
17C	3.3465 85	7.0866 180	1.6142 41	.157 4.0	.079 2.0	1.52 38.5	36,000	29,300	9.44
7318C	3.5433 90	7.4803 190	1.6929 43	.157 4.0	.079 2.0	1.59 40.5	41,000	35,500	11.0
19C	3.7402 95	7.8740 200	1.7717 45	.157 4.0	.079 2.0	1.67 42.5	44,000	39,000	12.9
20C	3.9370 100	8.4646 215	1.8504 47	.157 4.0	.079 2.0	1.75 44.5	50,000	46,500	15.7
7321C	4.1339 105	8.8583 225	1.9291 49	.157 4.0	.079 2.0	1.83 46.5	53,000	50,500	17.9
22C	4.3307 110	9.4488 240	1.9685 50	.157 4.0	.079 2.0	1.91 48.5	56,000	54,500	20.9



**15°
Contact
Angle**

ANGULAR CONTACT BALL BEARINGS

Units: **INCHES**
Millimeters



SERIES
BNT0
HSB0C

High Speed
Service

Suffix P5

- AFBMA RBEC 5 •
- ISO Class 5 •

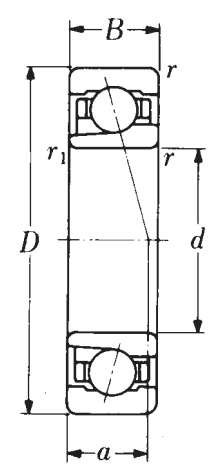
Suffix P4

- AFBMA ABEC 7 •
- ISO Class 4 •

Suffix P2

- AFBMA ABEC 9 •
- ISO Class 2 •

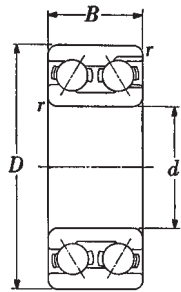
Bearing No.	Bore	O.D.	Width	Fillet Radii		Load Center	Basic Load Ratings (lbs)		Weight (lbs)
	<i>d</i>	<i>D</i>	<i>B</i>	<i>r</i>	<i>r₁</i>	<i>a</i>	Dynamic <i>C</i>	Static <i>C₀</i>	
BNT000	.3937	1.0236	.3150	.020	.012	.26	845	325	.037
01	¹⁰ .4724	²⁶ 1.1024	⁸ .3150	^{.5} .020	^{.3} .012	^{6.5} .26	930	390	.043
02	¹² .5906	²⁸ 1.2598	⁸ .3543	^{.5} .020	^{.3} .012	^{6.5} .30	1,070	500	.063
	¹⁵	³²	⁹	^{.5}	^{.3}	^{7.5}			
BNT003	.6693	1.3780	.3937	.020	.012	.33	1,330	605	.083
04	¹⁷ .7874	³⁵ 1.6535	¹⁰ .4724	^{.5} .039	^{.3} .020	^{8.5} .39	1,800	890	.145
05	²⁰ .9843	⁴² 1.8504	¹² .4724	^{1.0} .039	^{.5} .020	^{10.0} .43	2,010	1,090	.171
	²⁵	⁴⁷	¹²	^{1.0}	^{.5}	^{11.0}			
BNT006	1.1811	2.1654	.5118	.059	.031	.49	2,600	1,510	.265
07	³⁰ 1.3780	⁵⁵ 2.4409	¹³ .5512	^{1.5} .059	^{.8} .031	^{12.5} .53	3,300	2,010	.372
08	³⁵ 1.5748	⁶² 2.6772	¹⁴ .5906	^{1.5} .059	^{.8} .031	^{13.5} .57	3,550	2,340	.464
	⁴⁰	⁶⁸	¹⁵	^{1.5}	^{.8}	^{14.5}			
BNT009	1.7717	2.9528	.6299	.059	.031	.63	4,200	2,830	.600
	⁴⁵	⁷⁵	¹⁶	^{1.5}	^{.8}	^{16.0}			
HSB010C	1.9685	3.1496	.6299	.059	.031	.65	4,680	2,565	.564
11C	⁵⁰ 2.1654	⁸⁰ 3.5433	¹⁶ .7087	^{1.5} .079	^{.8} .039	^{16.5} .73	5,085	3,060	.875
	⁵⁵	⁹⁰	¹⁸	^{2.0}	^{1.0}	^{18.5}			
HSB012C	2.3622	3.7402	.7087	.079	.039	.77	5,332	3,375	.937
13C	⁶⁰ 2.5591	⁹⁵ 3.9370	¹⁸ .7087	^{2.0} .079	^{1.0} .039	^{19.5} .79	5,400	3,555	.997
14C	⁶⁵ 2.7559	¹⁰⁰ 4.3307	¹⁸ .7874	^{2.0} .079	^{1.0} .039	^{20.0} .87	6,615	4,477	1.41
	⁷⁰	¹¹⁰	²⁰	^{2.0}	^{1.0}	^{22.0}			
HSB015C	2.9528	4.5276	.7874	.079	.039	.89	7,087	5,040	1.50
16C	⁷⁵ 3.1496	¹¹⁵ 4.9213	²⁰ .8661	^{2.0} .079	^{1.0} .039	^{22.5} .96	8,100	5,782	2.02
17C	⁸⁰ 3.3465	¹²⁵ 5.1181	²² .8661	^{2.0} .079	^{1.0} .039	^{24.5} 1.00	8,212	6,030	2.11
	⁸⁵	¹³⁰	²²	^{2.0}	^{1.0}	^{25.5}			
HSB018C	3.5433	5.5118	.9449	.098	.047	1.08	9,450	7,087	2.76
19C	⁹⁰ 3.7402	¹⁴⁰ 5.7087	²⁴ .9449	^{2.5} .098	^{1.2} .047	^{27.5} 1.10	9,562	7,312	2.87
20C	⁹⁵ 3.9370	¹⁴⁵ 5.9055	²⁴ .9449	^{2.5} .098	^{1.2} .047	^{28.0} 1.12	9,900	7,875	3.00
	¹⁰⁰	¹⁵⁰	²⁴	^{2.5}	^{1.2}	^{28.5}			
HSB021C	4.1339	6.2992	1.0236	.079	.039	1.22	11,400	9,100	3.81
22C	¹⁰⁵ 4.3307	¹⁶⁰ 6.6929	²⁶ 1.1024	² .079	¹ .039	³¹ 1.30	14,100	11,100	4.70
24C	¹¹⁰ 4.7244	¹⁷⁰ 7.0866	²⁸ 1.1024	² .079	¹ .039	³³ 1.34	14,200	11,600	5.03
	¹²⁰	¹⁸⁰	²⁸	²	¹	³⁴			
HSB026C	5.1181	7.8740	1.2992	.079	.039	1.52	20,300	16,000	7.50
28C	¹³⁰ 5.5118	²⁰⁰ 8.2677	³³ 1.2992	² .079	¹ .039	^{38.5} 1.57	21,000	17,300	8.11
30C	¹⁴⁰ 5.9055	²¹⁰ 8.8583	³³ 1.3780	² .083	¹ .043	⁴⁰ 1.67	21,700	18,700	9.83
	¹⁵⁰	²²⁵	³⁵	^{2.1}	^{1.1}	^{42.5}			
HSB032C	6.2992	9.4488	1.4961	.083	.043	1.81	25,400	21,800	12.0
34C	¹⁶⁰ 6.6929	²⁴⁰ 10.2362	³⁸ 1.6535	^{2.1} .083	^{1.1} .043	⁴⁶ 1.97	29,000	25,000	16.3
	¹⁷⁰	²⁶⁰	⁴²	^{2.1}	^{1.1}	⁵⁰			



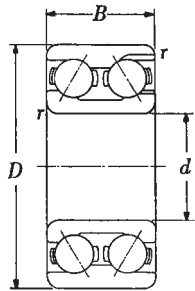
15°
Contact
Angle



Units: INCHES
Millimeters



32



33

DOUBLE ROW ANGULAR CONTACT BALL BEARINGS

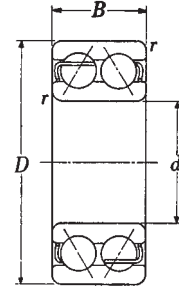
Bearing No.	Bore <i>d</i>	O.D. <i>D</i>	Width <i>B</i>	Fillet Radius <i>r</i>	Basic Load Ratings (lbs)		Weight (lbs)
					Dynamic <i>C</i>	Static <i>C₀</i>	
3200	.3937	1.1811	.5625	.039	1,890	1,460	.112
	10	30	14.29	1.0			
01	.4724	1.2598	.6250	.039	1,900	1,510	.132
	12	32	15.88	1.0			
02	.5906	1.3780	.6250	.039	2,500	2,040	.152
	15	35	15.88	1.0			
3203	.6693	1.5748	.6875	.039	3,200	2,660	.218
	17	40	17.46	1.0			
04	.7874	1.8504	.8125	.059	3,950	3,400	.366
	20	47	20.64	1.5			
05	.9843	2.0472	.8125	.059	4,350	4,150	.403
	25	52	20.64	1.5			
3206	1.1811	2.4409	.9375	.059	6,250	6,150	.668
	30	62	23.81	1.5			
07	1.3780	2.8346	1.0625	.079	8,400	8,550	1.01
	35	72	26.99	2.0			
08	1.5748	3.1496	1.1875	.079	9,100	10,100	1.38
	40	80	30.16	2.0			
3209	1.7717	3.3465	1.1875	.079	10,400	11,700	1.49
	45	85	30.16	2.0			
10	1.9685	3.5433	1.1875	.079	11,800	13,400	1.54
	50	90	30.16	2.0			
11	2.1654	3.9370	1.3125	.098	14,800	17,200	2.36
	55	100	33.34	2.5			
3212	2.3622	4.3307	1.4375	.098	15,800	19,800	2.95
	60	110	36.51	2.5			
13	2.5591	4.7244	1.5000	.098	17,500	22,300	3.70
	65	120	38.10	2.5			
14	2.7559	4.9213	1.5625	.098	19,300	24,800	4.06
	70	125	39.69	2.5			
3215	2.9528	5.1181	1.6250	.098	21,100	27,500	4.43
	75	130	41.28	2.5			
16	3.1496	5.5118	1.7500	.118	23,300	29,400	5.97
	80	140	44.45	3.0			
17	3.3465	5.9055	1.9375	.118	27,300	35,000	7.67
	85	150	49.21	3.0			
3218	3.5433	6.2992	2.0625	.118	30,500	38,000	9.35
	90	160	52.39	3.0			
19	3.7402	6.6929	2.1875	.138	32,500	41,500	11.2
	95	170	55.56	3.5			
20	3.9370	7.0866	2.3750	.138	42,500	52,500	13.0
	100	180	60.33	3.5			
3302	.5906	1.6535	.7500	.059	3,200	2,660	.280
	15	42	19.05	1.5			
03	.6693	1.8504	.8750	.059	3,950	3,350	.408
	17	47	22.23	1.5			
04	.7874	2.0472	.8750	.079	4,750	4,150	.487
	20	52	22.23	2.0			
3305	.9843	2.4409	1.0000	.079	6,600	6,000	.780
	25	62	25.40	2.0			
06	1.1811	2.8346	1.1875	.079	8,700	8,200	1.23
	30	72	30.16	2.0			
07	1.3780	3.1496	1.3750	.098	11,100	10,700	1.67
	35	80	34.93	2.5			
3308	1.5748	3.5433	1.4375	.098	12,200	12,900	2.27
	40	90	36.51	2.5			
09	1.7717	3.9370	1.5625	.098	15,100	16,300	3.02
	45	100	39.69	2.5			
10	1.9685	4.3307	1.7500	.118	18,300	20,100	4.37
	50	110	44.45	3.0			
3311	2.1654	4.7244	1.9375	.118	21,700	24,300	5.34
	55	120	49.21	3.0			
12	2.3622	5.1181	2.1250	.138	25,400	28,900	6.77
	60	130	53.98	3.5			
13	2.5591	5.5118	2.3125	.138	29,400	34,000	8.60
	65	140	58.74	3.5			
3314	2.7559	5.9055	2.5000	.138	34,500	38,000	11.5
	70	150	63.50	3.5			
15	2.9528	6.2992	2.6875	.138	38,500	43,000	13.9
	75	160	68.26	3.5			

DOUBLE ROW ANGULAR CONTACT BALL BEARINGS

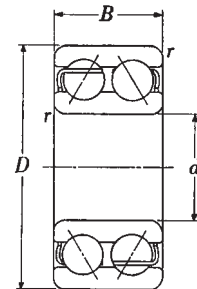
Units: INCHES
Millimeters



Bearing No.	Bore <i>d</i>	O.D. <i>D</i>	Width <i>B</i>	Fillet Radius <i>r</i>	Basic Load Ratings (lbs)		Weight (lbs)
					Dynamic <i>C</i>	Static <i>C_o</i>	
5200	.3937 10	1.1811 30	.5630 14.3	.024 0.6	1,560	855	.108
01	.4724 12	1.2598 32	.6260 15.9	.024 .6	2,050	1,140	.126
02	.5906 15	1.3780 35	.6260 15.9	.024 .6	2,260	1,360	.141
5203	.6693 17	1.5748 40	.6890 17.5	.039 1	2,870	1,770	.212
04	.7874 20	1.8504 47	.8110 20.6	.059 1.5	4,300	2,710	.337
05	.9843 25	2.0472 52	.8110 20.6	.059 1.5	4,650	3,200	.386
5206	1.1811 30	2.4409 62	.9370 23.8	.059 1.5	6,450	4,600	.631
07	1.3780 35	2.8346 72	1.0630 27.0	.079 2	8,500	6,250	.961
08	1.5748 40	3.1496 80	1.1890 30.2	.079 2	9,600	7,250	1.30
5209	1.7717 45	3.3465 85	1.1890 30.2	.079 2	10,800	8,300	1.41
10	1.9685 50	3.5433 90	1.1890 30.2	.079 2	11,500	9,400	1.52
11	2.1654 55	3.9370 100	1.3110 33.3	.098 2.5	14,200	11,900	2.17
5212	2.3622 60	4.3307 110	1.4370 36.5	.098 2.5	16,100	13,100	2.80
13	2.5591 65	4.7244 120	1.5000 38.1	.098 2.5	18,700	16,300	3.46
14	2.7559 70	4.9213 125	1.5630 39.7	.098 2.5	20,400	17,900	3.97
5215	2.9528 75	5.1181 130	1.6260 41.3	.098 2.5	20,300	18,100	4.19
16	3.1496 80	5.5118 140	1.7480 44.4	.118 3	23,800	21,400	5.27
17	3.3465 85	5.9055 150	1.9370 49.2	.118 3	25,100	23,900	6.75
5218	3.5433 90	6.2992 160	2.0630 52.4	.118 3	31,500	29,000	8.22
19	3.7402 95	6.6929 170	2.1890 55.6	.138 3.5	35,500	33,000	10.7
20	3.9370 100	7.0866 180	2.3740 60.3	.138 3.5	40,000	37,500	13.1
5302	.5906 15	1.6535 42	.7480 19	.039 1	3,850	2,260	.291
03	.6693 17	1.8504 47	.8740 22.2	.024 .6	2,870	1,770	.212
04	.7874 20	2.0472 52	.8740 22.2	.079 2	4,650	2,850	.478
5305	.9843 25	2.4409 62	1.0000 25.4	.079 2	6,850	4,600	.798
06	1.1811 30	2.8346 72	1.1890 30.2	.079 2	8,900	6,200	1.22
07	1.3780 35	3.1496 80	1.3740 34.9	.098 2.5	11,100	7,850	1.69
5308	1.5748 40	3.5433 90	1.4370 36.5	.098 2.5	13,600	9,850	2.23
09	1.7717 45	3.9370 100	1.5630 39.7	.098 2.5	16,300	12,100	2.95
10	1.9685 50	4.3307 110	1.7480 44.4	.118 3	19,200	14,500	3.99
5311	2.1654 55	4.7244 120	1.9370 49.2	.118 3	23,900	18,500	5.11
12	2.3622 60	5.1181 130	2.1260 54.0	.138 3.5	27,300	21,400	6.72
13	2.5591 65	5.5118 140	2.3110 58.7	.138 3.5	31,000	24,600	8.73
5314	2.7559 70	5.9055 150	2.5000 63.5	.138 3.5	35,000	28,000	10.4
15	2.9528 75	6.2992 160	2.6890 68.3	.138 3.5	38,000	31,500	12.5



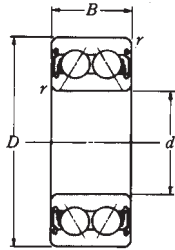
52



53



Units: INCHES
Millimeters



Type ZZ
with two shields



Type LLB
with two seals
(non-contact)

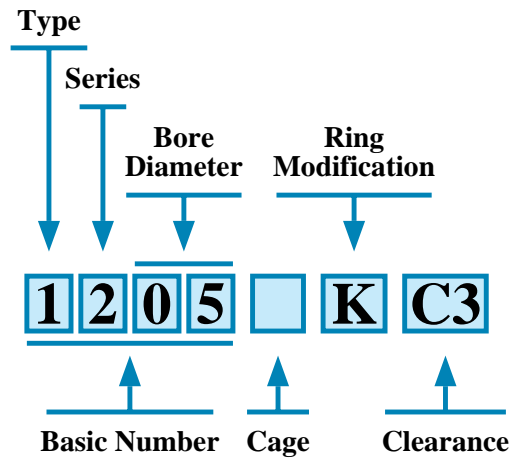


Type LLU
with two seals
(contact)

ANGULAR CONTACT BALL BEARINGS

Bearing Numbers			Bore	O.D.	Width	Fillet Radius	Basic Load Ratings (lbs)		Weight (lbs)
ZZ	LLB	LLU	<i>d</i>	<i>D</i>	<i>B</i>	<i>r</i>	Dynamic <i>C</i>	Static <i>C_o</i>	
5200AZZ	ALLB	ALLU	.3937 10	1.1811 30	.5630 14.3	.024 0.6	1,560	855	.108
5201AZZ	ALLB	ALLU	.4724 12	1.2598 32	.6260 15.9	.024 .6	1,710	1,010	.126
5202BZZ	BLLB	BLLU	.5906 15	1.3780 35	.6260 15.9	.024 .6	1,840	1,180	.141
5203BZZ	BLLB	BLLU	.6693 17	1.5748 40	.6890 17.5	.024 .6	2,430	1,590	.212
5204BZZ	BLLB	BLLU	.7874 20	1.8504 47	.8110 20.6	.039 1	3,550	2,280	.337
5205BZZ	BLLB	BLLU	.9843 25	2.0472 52	.8110 20.6	.039 1	4,100	2,970	.386
5206CZZ	CLLB	CLLU	1.1811 30	2.4409 62	.9370 23.8	.039 1	5,850	4,400	.631
5207AZZ	ALLB	ALLU	1.3780 35	2.8346 72	1.0630 27	.043 1.1	7,400	5,500	.961
5208AZZ	ALLB	ALLU	1.5748 40	3.1496 80	1.1890 30.2	.043 1.1	9,050	7,150	1.30
5209AZZ	ALLB	ALLU	1.7717 45	3.3465 85	1.1890 30.2	.043 1.1	9,000	7,300	1.41
5210AZZ	ALLB	ALLU	1.9685 50	3.5433 90	1.1890 30.2	.043 1.1	8,700	7,800	1.52
5302AZZ	ALLB	ALLU	.5906 15	1.6535 42	.7480 19	.039 1	3,200	1,980	.291
5303CZZ	CLLB	CLLU	.6693 17	1.8504 47	.8740 22.2	.039 1	4,250	2,670	.399
5304BZZ	BLLB	BLLU	.7874 20	2.0472 52	.8740 22.2	.043 1.1	4,300	2,780	.478
5305CZZ	CLLB	CLLU	.9843 25	2.4409 62	1.000 25.4	.043 1.1	5,950	4,050	.798
5306AZZ	ALLB	ALLU	1.1811 30	2.8346 72	1.1890 30.2	.043 1.1	7,400	5,450	1.22
5307AZZ	ALLB	ALLU	1.3780 35	3.1496 80	1.3740 34.9	.059 1.5	11,100	7,850	1.69
5308AZZ	ALLB	ALLU	1.5748 40	3.5433 90	1.4370 36.5	.059 1.5	12,400	9,000	2.23
5309BZZ	BLLB	BLLU	1.7717 45	3.9370 100	1.5630 39.7	.059 1.5	14,900	11,100	2.95
5310AZZ	ALLB	ALLU	1.9685 50	4.3307 110	1.7480 44.4	.079 2	17,700	13,600	3.99
5311AZZ	ALLB	ALLU	2.1654 55	4.7244 120	1.9370 49.2	.079 2	20,700	16,200	5.11

Note: Suffixes A, B and C denote internal design change to accommodate seal.



1. TYPE

- 1: Standard for self-aligning ball bearings
- 2: Standard for self-aligning ball bearings

2. CAGE

- No Symbol: Standard cage
- J: Pressed steel cage
- T2: Plastic cage, nylon or teflon
- L1: Machined brass cage

3. RING MODIFICATION

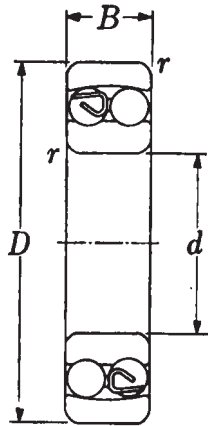
- K: 1:12 tapered bore

4. INTERNAL CLEARANCE

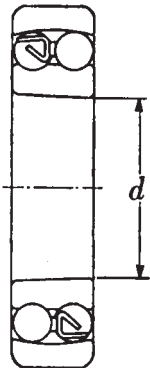
- C1: Radial clearance less than C2
- C2: Radial clearance less than normal
- C3: Radial clearance greater than normal
- C4: Radial clearance greater than C3
- C5: Radial clearance greater than C4
- CSXX: Special radial clearance;
XX is mean value in 0.001 mm units



Units: INCHES
Millimeters



**Cylindrical
Bore
12**



**Tapered
Bore
12K
Taper 1:12**

SELF-ALIGNING BALL BEARINGS								
Bearing No.		Bore	O.D.	Width	Fillet Radius	Basic Load Ratings (lbs)		Weight (lbs)
		<i>d</i>	<i>D</i>	<i>B</i>	<i>r</i>	Dynamic <i>C</i>	Static <i>C₀</i>	
1200	—	.3937 10	1.1811 30	.3543 9	.039 1.0	1,230	268	.075 —
01	—	.4724 12	1.2598 32	.3937 10	.039 1.0	1,260	286	.088 —
02	—	.5906 15	1.3780 35	.4331 11	.039 1.0	1,680	395	.108 —
1203	—	.6693 17	1.5748 40	.4724 12	.039 1.0	1,770	450	.161 —
04	1204K	.7874 20	1.8504 47	.5512 14	.059 1.5	2,230	585	.265 .260
05	05K	.9843 25	2.0472 52	.5906 15	.059 1.5	2,720	740	.311 .304
1206	1206K	1.1811 30	2.4409 62	.6299 16	.059 1.5	3,500	1,050	.485 .476
07	07K	1.3780 35	2.8346 72	.6693 17	.079 2.0	3,550	1,150	.712 .699
08	08K	1.5748 40	3.1496 80	.7087 18	.079 2.0	4,350	1,470	.919 .906
1209	1209K	1.7717 45	3.3465 85	.7480 19	.079 2.0	4,900	1,650	1.03 1.01
10	10K	1.9685 50	3.5433 90	.7874 20	.079 2.0	5,100	1,820	1.16 1.14
11	11K	2.1654 55	3.9370 100	.8268 21	.098 2.5	6,000	2,250	1.55 1.53
1212	1212K	2.3622 60	4.3307 110	.8661 22	.098 2.5	6,800	2,590	1.98 1.95
13	13K	2.5591 65	4.7244 120	.9055 23	.098 2.5	6,950	2,820	2.54 2.49
14	—	2.7559 70	4.9213 125	.9449 24	.098 2.5	7,800	3,100	2.78 —
1215	1215K	2.9528 75	5.1181 130	.9843 25	.098 2.5	8,750	3,550	3.00 2.95
16	16K	3.1496 80	5.5118 140	1.0236 26	.118 3.0	8,950	3,800	3.68 3.62
17	17K	3.3465 85	5.9055 150	1.1024 28	.118 3.0	11,000	4,650	4.56 4.50
1218	1218K	3.5433 90	6.2992 160	1.1811 30	.118 3.0	12,800	5,300	5.56 5.47
19	19K	3.7402 95	6.6929 170	1.2598 32	.138 3.5	14,300	6,100	6.83 6.72
20	20K	3.9370 100	7.0866 180	1.3386 34	.138 3.5	15,500	6,700	8.16 8.02
1221	—	4.1339 105	7.4803 190	1.4173 36	.138 3.5	16,700	7,300	9.63 —
22	1222K	4.3307 110	7.8740 200	1.4961 38	.138 3.5	18,100	7,950	11.4 11.2

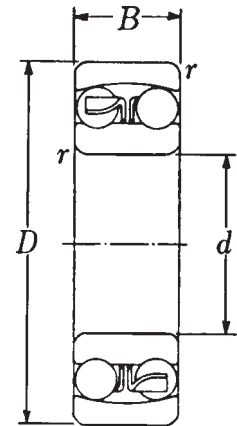
The *d* dimension for the tapered bore is measured from the side of the bearing with the smallest bore dimension.

SELF-ALIGNING BALL BEARINGS

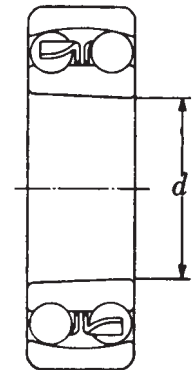
Units: INCHES
Millimeters



Bearing No.	Bore	O.D.	Width	Fillet Radius	Basic Load Ratings (lbs)		Weight (lbs)		
					Dynamic C	Static C_0	22	22K	
	d	D	B	r					
2200	—	.3937	1.1811	.5512	.039	1,640	360	.104	—
		10	30	14	1.0				
01	—	.4724	1.2598	.5512	.039	1,710	390	.117	—
		12	32	14	1.0				
02	—	.5906	1.3780	.5512	.039	1,730	415	.132	—
		15	35	14	1.0				
2203	—	.6693	1.5748	.6299	.039	2,200	545	.194	—
		17	40	16	1.0				
04	2204K	.7874	1.8504	.7087	.059	2,830	745	.309	.300
		20	47	18	1.5				
05	05K	.9843	2.0472	.7087	.059	2,760	775	.359	.348
		25	52	18	1.5				
2206	2206K	1.1811	2.4409	.7874	.059	3,400	1,020	.573	.560
		30	62	20	1.5				
07	07K	1.3780	2.8346	.9055	.079	4,850	1,480	.888	.873
		35	72	23	2.0				
08	08K	1.5748	3.1496	.9055	.079	5,000	1,650	1.11	1.09
		40	80	23	2.0				
2209	2209K	1.7717	3.3465	.9055	.079	5,200	1,830	1.20	1.18
		45	85	23	2.0				
10	10K	1.9685	3.5433	.9055	.079	5,200	1,900	1.30	1.27
		50	90	23	2.0				
11	11K	2.1654	3.9370	.9843	.098	5,950	2,220	1.79	1.75
		55	100	25	2.5				
2212	2212K	2.3622	4.3307	1.1024	.098	7,650	2,840	2.40	2.36
		60	110	28	2.5				
13	13K	2.5591	4.7244	1.2205	.098	9,750	3,700	3.22	3.15
		65	120	31	2.5				
14	—	2.7559	4.9213	1.2205	.098	9,850	3,850	3.35	—
		70	125	31	2.5				
2215	2215K	2.9528	5.1181	1.2205	.098	9,950	4,000	3.57	3.48
		75	130	31	2.5				
16	16K	3.1496	5.5118	1.2992	.118	10,900	4,450	4.43	4.34
		80	140	33	3.0				
17	17K	3.3465	5.9055	1.4173	.118	13,100	5,300	5.56	5.42
		85	150	36	3.0				
2218	2218K	3.5433	6.2992	1.5748	.118	15,800	6,450	7.50	7.34
		90	160	40	3.0				
19	19K	3.7402	6.6929	1.6929	.138	18,700	7,750	9.04	8.82
		95	170	43	3.5				
20	20K	3.9370	7.0866	1.8110	.138	21,100	8,650	11.0	10.7
		100	180	46	3.5				
2221	—	4.1339	7.4803	1.9685	.138	24,400	10,100	13.4	—
		105	190	50	3.5				
22	2222K	4.3307	7.8740	2.0866	.138	27,900	11,600	15.7	15.3
		110	200	53	3.5				



Cylindrical Bore
22

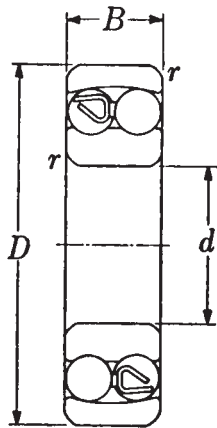


Tapered Bore
22K
Taper 1:12

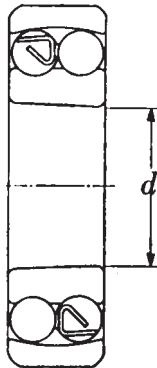
The d dimension for the tapered bore is measured from the side of the bearing with the smallest bore dimension.



Units: INCHES
Millimeters



Cylindrical Bore
13



Tapered Bore
13K
Taper 1:12

SELF-ALIGNING BALL BEARINGS

Bearing No.		Bore	O.D.	Width		Fillet Radius	Basic Load Ratings (lbs)		Weight (lbs)	
<i>13</i>	<i>13K</i>	<i>d</i>	<i>D</i>	<i>B</i>	B_1	<i>r</i>	<i>C</i>	<i>C₀</i>	<i>13</i>	<i>13K</i>
1300	—	.3937 10	1.3780 35	.4331 11	—	.039 1.0	1,630	365	.128	—
01	—	.4724 12	1.4567 37	.4724 12	—	.059 1.5	2,130	485	.148	—
02	—	.5906 15	1.6535 42	.5118 13	—	.059 1.5	2,150	515	.207	—
1303	—	.6693 17	1.8504 47	.5512 14	—	.059 1.5	2,820	715	.287	—
04	1304K	.7874 20	2.0472 52	.5906 15	—	.079 2.0	2,790	750	.359	.355
05	05K	.9843 25	2.4409 62	.6693 17	—	.079 2.0	4,050	1,130	.567	.556
1306	1306K	1.1811 30	2.8346 72	.7480 19	—	.079 2.0	4,800	1,420	.853	.840
07	07K	1.3780 35	3.1496 80	.8268 21	—	.098 2.5	5,650	1,770	1.12	1.11
08	08K	1.5748 40	3.5433 90	.9055 23	—	.098 2.5	6,650	2,180	1.58	1.55
1309	1309K	1.7717 45	3.9370 100	.9843 25	—	.098 2.5	8,550	2,860	2.11	2.08
10	10K	1.9685 50	4.3307 110	1.0630 27	—	.118 3.0	9,750	3,150	2.67	2.62
11	11K	2.1654 55	4.7244 120	1.1417 29	—	.118 3.0	11,600	4,000	3.48	3.44
1312	1312K	2.3622 60	5.1181 130	1.2205 31	—	.138 3.5	12,900	4,700	4.32	4.25
13	13K	2.5591 65	5.5118 140	1.2992 33	—	.138 3.5	13,900	5,150	5.40	5.31
14	—	2.7559 70	5.9055 150	1.3780 35	—	.138 3.5	16,700	6,250	6.59	—
1315	1315K	2.9528 75	6.2992 160	1.4567 37	—	.138 3.5	17,800	6,750	7.85	7.74
16	16K	3.1496 80	6.6929 170	1.5354 39	—	.138 3.5	19,900	7,450	9.22	9.08
17	17K	3.3465 85	7.0866 180	1.6142 41	—	.157 4.0	22,000	8,500	11.0	10.8
1318	1318K	3.5433 90	7.4803 190	1.6929 43	1.772 45	.157 4.0	26,100	10,000	12.8	12.6
19	19K	3.7402 95	7.8740 200	1.7717 45	1.890 48	.157 4.0	29,600	11,400	14.7	14.5
20	20K	3.9370 100	8.4646 215	1.8504 47	2.047 52	.157 4.0	32,000	12,900	18.3	18.1
1321	—	4.1339 105	8.8583 225	1.9291 49	2.126 54	.157 4.0	35,000	14,500	22.0	—
22	1322K	4.3307 110	9.4488 240	1.9685 50	2.165 55	.157 4.0	37,000	16,100	26.0	25.8

① B_1 is the combined width of the balls. Note that for bearings No. 1318(K) - 1322(K), the balls project beyond the ring face ($B_1 > B$).

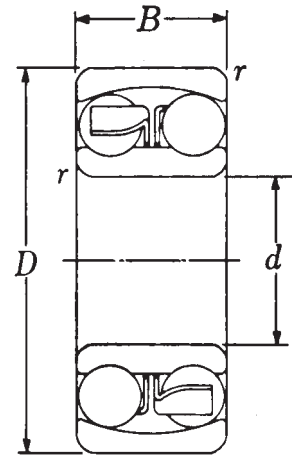
The d dimension for the tapered bore is measured from the side of the bearing with the smallest bore dimension.

SELF-ALIGNING BALL BEARINGS

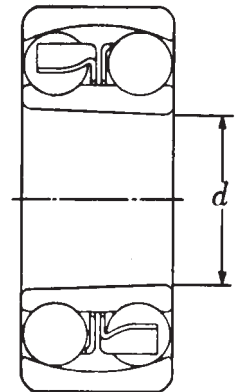
Units: **INCHES**
Millimeters



Bearing No.		Bore	O.D.	Width	Fillet Radius	Basic Load Ratings (lbs)		Weight (lbs)	
23	23K	<i>d</i>	<i>D</i>	<i>B</i>	<i>r</i>	Dynamic <i>C</i>	Static <i>C</i> ₀	23	23K
2300	—	.3937 10	1.3780 35	.6693 17	.039 1.0	2,270	485	.183	—
01	—	.4724 12	1.4567 37	.6693 17	.059 1.5	2,640	610	.201	—
02	—	.5906 15	1.6535 42	.6693 17	.059 1.5	2,700	650	.251	—
2303	—	.6693 17	1.8504 47	.7480 19	.059 1.5	3,250	800	.348	—
04	2304K	.7874 20	2.0472 52	.8268 21	.079 2.0	4,050	1,060	.461	.452
05	05K	.9843 25	2.4409 62	.9449 24	.079 2.0	5,500	1,480	.739	.721
2306	2306K	1.1811 30	2.8346 72	1.0630 27	.079 2.0	7,050	1,970	1.10	1.08
07	07K	1.3780 35	3.1496 80	1.2205 31	.098 2.5	8,850	2,530	1.49	1.45
08	08K	1.5748 40	3.5433 90	1.2992 33	.098 2.5	10,100	3,050	2.04	1.99
2309	2309K	1.7717 45	3.9370 100	1.4173 36	.098 2.5	12,200	3,750	2.71	2.65
10	10K	1.9685 50	4.3307 110	1.5748 40	.118 3.0	14,500	4,550	3.62	3.53
11	11K	2.1654 55	4.7244 120	1.6929 43	.118 3.0	16,900	5,400	4.63	4.52
2312	2312K	2.3622 60	5.1181 130	1.8110 46	.138 3.5	19,600	6,350	5.73	5.58
13	13K	2.5591 65	5.5118 140	1.8898 48	.138 3.5	21,600	7,300	7.12	6.94
14	—	2.7559 70	5.9055 150	2.0079 51	.138 3.5	24,600	8,450	8.60	—
2315	2315K	2.9528 75	6.2992 160	2.1654 55	.138 3.5	27,700	9,650	10.4	10.2
16	16K	3.1496 80	6.6929 170	2.2835 58	.138 3.5	28,800	10,200	13.4	13.1
17	17K	3.3465 85	7.0866 180	2.3622 60	.157 4.0	31,500	11,500	15.5	15.2
2318	2318K	3.5433 90	7.4803 190	2.5197 64	.157 4.0	34,000	12,900	18.6	18.2
19	19K	3.7402 95	7.8740 200	2.6378 67	.157 4.0	37,000	14,500	21.6	21.1
20	20K	3.9370 100	8.4646 215	2.8740 73	.157 4.0	43,000	17,800	27.3	26.7
2321	—	4.1339 105	8.8583 225	3.0315 77	.157 4.0	46,000	19,500	31.5	—
22	2322K	4.3307 110	9.4488 240	3.1496 80	.157 4.0	48,500	21,300	38.1	37.3

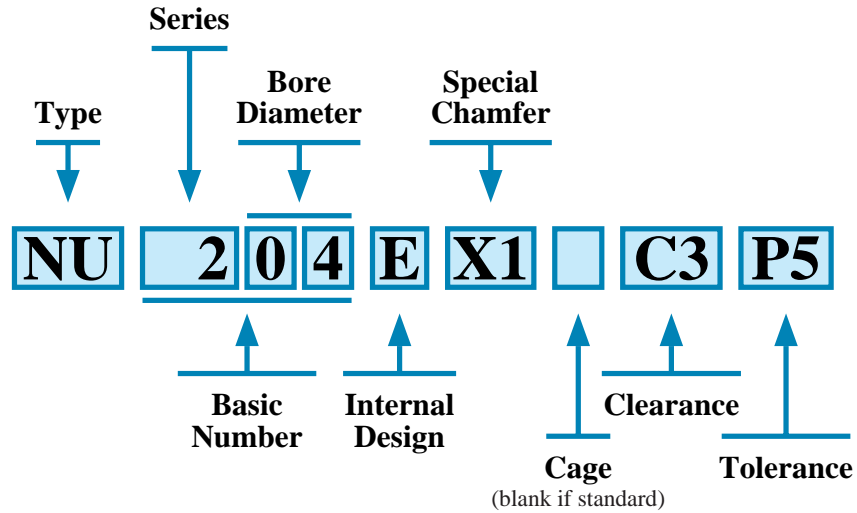
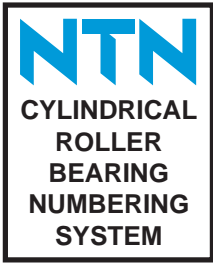


Cylindrical Bore
23



Tapered Bore
23K
Taper 1:12

The *d* dimension for the tapered bore is measured from the side of the bearing with the smallest bore dimension.



1. TYPE

- N: Straight outer ring with inner ring and roller assembly
- NU: Straight inner ring with outer ring and roller assembly
- NF: One lip outer ring with inner ring and roller assembly
- NJ: One lip inner ring with outer ring and roller assembly
- NH: NJ series bearing with HJ thrust collar (NJ+HJ=NH)
- NN: Double row precision cylindrical bearings
- HJ: Separate thrust collar
- R, RN, RNU: Special cylindrical roller bearings

2. SERIES

- 10: Standard series cylindrical roller bearings
- 2: Standard series cylindrical roller bearings
- 22: Standard series cylindrical roller bearings
- 23: Standard series cylindrical roller bearings
- 3: Standard series cylindrical roller bearings
- 4: Standard series cylindrical roller bearings

3. INTERNAL DESIGN

- E: High capacity cylindrical roller bearings

4. CHAMFER

- Xn: Special chamfer, from 1 onward (X1, X2 . . .)

5. CAGE

- F1: Machined steel cage
- J: Pressed steel cage
- G1: Machined brass cage
- T2: Nylon cage

6. INTERNAL CLEARANCE

- C1: Radial clearance less than C2
- C2: Radial clearance less than normal
- No Suffix: Normal Radial Clearance
- C3: Radial clearance greater than normal
- C4: Radial clearance greater than C3
- C5: Radial clearance greater than C4
- CSXX: Special radial clearance; XX is mean value in 0.001 mm units (μm)
- NA: Radial clearance of cylindrical roller bearings with non-interchangeable components

7. TOLERANCE

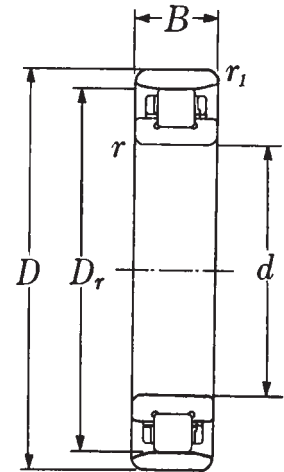
- Normal: ISO class 0
- P6: ISO class 6 (equivalent to RBEC 3)
- P5: ISO class 5 (equivalent to RBEC 5)
- P4: ISO class 4 (equivalent to RBEC 7)

CYLINDRICAL ROLLER BEARINGS

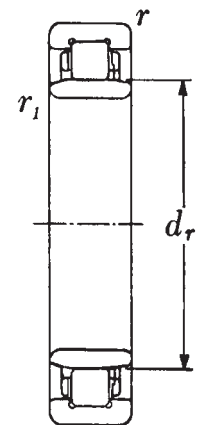
Units: **INCHES**
Millimeters



Bearing No.	Bore <i>d</i>	O.D. <i>D</i>	Width <i>B</i>	Fillet Radii		Outer Ring I.D. <i>D_r</i>	Inner Ring O.D. <i>d_r</i>	Basic Load Ratings (lbs)		Weight (lbs)	
				<i>r</i>	<i>r_i</i>			Dynamic <i>C</i>	Static <i>C₀</i>	<i>N10</i>	<i>NU10</i>
1005	.9843 25	1.8504 47	.4724 12	.039 1.0	.020 .5	1.6339 41.5	1.2008 30.5	3,400	3,150	.201	.203
06	1.1811 30	2.1654 55	.5118 13	.059 1.5	.031 .8	1.9094 48.5	1.4370 36.5	4,400	4,400	.291	.295
07	1.3780 35	2.4409 62	.5512 14	.059 1.5	.031 .8	2.1654 55.0	1.6535 42.0	5,100	5,200	.386	.392
1008	1.5748 40	2.6772 68	.5906 15	.059 1.5	.039 1.0	2.4016 61.0	1.8504 47.0	6,150	6,500	.481	.487
09	1.7717 45	2.9528 75	.6299 16	.059 1.5	.039 1.0	2.6575 67.5	2.0669 52.5	7,000	7,600	.608	.617
10	1.9685 50	3.1496 80	.6299 16	.059 1.5	.039 1.0	2.8543 72.5	2.2638 57.5	7,200	8,100	.653	.661
1011	2.1654 55	3.5433 90	.7087 18	.079 2.0	.059 1.5	3.1693 80.5	2.5394 64.5	8,450	9,850	.959	.974
12	2.3622 60	3.7402 95	.7087 18	.079 2.0	.059 1.5	3.3661 85.5	2.7362 69.5	9,000	10,900	1.03	1.04
13	2.5591 65	3.9370 100	.7087 18	.079 2.0	.059 1.5	3.5630 90.5	2.9331 74.5	9,250	11,500	1.10	1.11
1014	2.7559 70	4.3307 110	.7874 20	.079 2.0	.059 1.5	3.9370 100.0	3.1496 80.0	13,100	15,800	1.52	1.54
15	2.9528 75	4.5276 115	.7874 20	.079 2.0	.059 1.5	4.1339 105.0	3.3465 85.0	13,500	16,700	1.60	1.63
16	3.1496 80	4.9213 125	.8661 22	.079 2.0	.059 1.5	4.4685 113.5	3.6024 91.5	16,300	20,400	2.13	2.16
1017	3.3465 85	5.1181 130	.8661 22	.079 2.0	.059 1.5	4.6654 118.5	3.7992 96.5	16,700	21,500	2.23	2.27
18	3.5433 90	5.5118 140	.9449 24	.098 2.5	.079 2.0	5.0000 127.0	4.0551 103.0	19,800	25,700	2.91	2.95
19	3.7402 95	5.7087 145	.9449 24	.098 2.5	.079 2.0	5.1969 132.0	4.2520 108.0	20,400	27,000	3.04	3.09
1020	3.9370 100	5.9055 150	.9449 24	.098 2.5	.079 2.0	5.3937 137.0	4.4488 113.0	20,900	28,300	3.15	3.20
21	4.1339 105	6.2992 160	1.0236 26	.118 3.0	.079 2.0	5.7283 145.5	4.7047 119.5	23,700	32,000	3.99	4.06
22	4.3307 110	6.6929 170	1.1024 28	.118 3.0	.079 2.0	6.1024 155.0	4.9213 125.0	29,500	39,000	4.96	5.03
1024	4.7244 120	7.0866 180	1.1024 28	.118 3.0	.079 2.0	6.4961 165.0	5.3150 135.0	31,000	43,000	5.29	5.38
26	5.1181 130	7.8740 200	1.2992 33	.118 3.0	.079 2.0	7.1654 182.0	5.8268 148.0	38,500	53,500	8.00	8.14
28	5.5118 140	8.2677 210	1.2992 33	.118 3.0	.079 2.0	7.5591 192.0	6.2205 158.0	39,500	56,000	8.51	8.64
1030	5.9055 150	8.8583 225	1.3780 35	.138 3.5	.098 2.5	8.0906 205.5	6.6732 169.5	45,500	66,000	10.4	10.5
32	6.2992 160	9.4488 240	1.4961 38	.138 3.5	.098 2.5	8.6614 220.0	7.0866 180.0	53,500	77,000	12.8	13.0
34	6.6929 170	10.2362 260	1.6535 42	.138 3.5	.138 3.5	9.3307 237.0	7.5984 193.0	62,500	90,000	17.1	17.4
1036	7.0866 180	11.0236 280	1.8110 46	.138 3.5	.138 3.5	10.0394 255.0	8.0709 205.0	77,000	110,000	22.3	22.7
38	7.4803 190	11.4173 290	1.8110 46	.138 3.5	.138 3.5	10.4331 265.0	8.4646 215.0	79,000	115,000	23.1	23.6
40	7.8740 200	12.2047 310	2.0079 51	.138 3.5	.138 3.5	11.0630 281.0	9.0157 229.0	87,500	131,000	30.2	30.6
1044	8.6614 220	13.3858 340	2.2047 56	.157 4.0	.157 4.0	12.2047 310.0	9.8425 250.0	113,000	168,000	39.5	40.1
48	9.4488 240	14.1732 360	2.2047 56	.157 4.0	.157 4.0	12.9921 330.0	10.6299 270.0	119,000	184,000	42.5	43.2
52	10.2362 260	15.7480 400	2.5591 65	.197 5.0	.197 5.0	14.3307 364.0	11.6535 296.0	145,000	224,000	63.3	64.2
1056	11.0236 280	16.5354 420	2.5591 65	.197 5.0	.197 5.0	15.1181 384.0	12.4409 316.0	148,000	235,000	67.0	68.1
60	11.8110 300	18.1102 460	2.9134 74	.197 5.0	.197 5.0	16.5354 420.0	13.3858 340.0	192,000	300,000	94.6	96.1
64	12.5984 320	18.8976 480	2.9134 74	.197 5.0	.197 5.0	17.3228 440.0	14.1732 360.0	197,000	315,000	99.9	101



N10



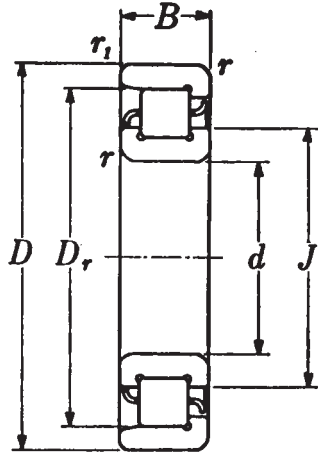
NU10

① These figures may vary slightly according to cage type and type of bearing.



Units: INCHES
Millimeters

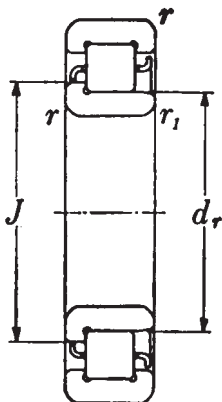
CYLINDRICAL ROLLER BEARINGS



NF2



N2



NJ2

Bearing No.	Bore	O.D.	Width	Fillet Radii		Outer Ring I.D.	Inner Ring O.D.	Shoulder Height
	<i>d</i>	<i>D</i>		<i>r</i>	<i>r</i> ₁	<i>D</i> _r	<i>d</i> _r	
204	.7874 20	1.8504 47	.5512 14	.059 1.5	.039 1.0	1.5748 40.0	1.0630 27.0	1.181 30.0
05	.9843 25	2.0472 52	.5906 15	.059 1.5	.039 1.0	1.7717 45.0	1.2598 32.0	1.378 35.0
06	1.1811 30	2.4409 62	.6299 16	.059 1.5	.039 1.0	2.1063 53.5	1.5157 38.5	1.646 41.8
207	1.3780 35	2.8346 72	.6693 17	.079 2.0	.039 1.0	2.4331 61.8	1.7244 43.8	1.874 47.6
08	1.5748 40	3.1496 80	.7087 18	.079 2.0	.079 2.0	2.7559 70.0	1.9685 50.0	2.134 54.2
09	1.7717 45	3.3465 85	.7480 19	.079 2.0	.079 2.0	2.9528 75.0	2.1654 55.0	2.323 59.0
210	1.9685 50	3.5433 90	.7874 20	.079 2.0	.079 2.0	3.1654 80.4	2.3780 60.4	2.543 64.6
11	2.1654 55	3.9370 100	.8268 21	.098 2.5	.079 2.0	3.4843 88.5	2.6181 66.5	2.787 70.8
12	2.3622 60	4.3307 110	.8661 22	.098 2.5	.098 2.5	3.8386 97.5	2.8937 73.5	3.087 78.4
213	2.5591 65	4.7244 120	.9055 23	.098 2.5	.098 2.5	4.1575 105.6	3.1339 79.6	3.339 84.8
14	2.7559 70	4.9213 125	.9449 24	.098 2.5	.098 2.5	4.3504 110.5	3.3268 84.5	3.528 89.6
15	2.9528 75	5.1181 130	.9843 25	.098 2.5	.098 2.5	4.5866 116.5	3.4843 88.5	3.701 94.0
216	3.1496 80	5.5118 140	1.0236 26	.118 3.0	.118 3.0	4.9331 125.3	3.7520 95.3	3.984 101.2
17	3.3465 85	5.9055 150	1.1024 28	.118 3.0	.118 3.0	5.2677 133.8	4.0079 101.8	4.260 108.2
18	3.5433 90	6.2992 160	1.1811 30	.118 3.0	.118 3.0	5.6299 143.0	4.2126 107.0	4.496 114.2
219	3.7402 95	6.6929 170	1.2598 32	.138 3.5	.138 3.5	5.9646 151.5	4.4685 113.5	4.764 121.0
20	3.9370 100	7.0866 180	1.3386 34	.138 3.5	.138 3.5	6.2992 160.0	4.7244 120.0	5.039 128.0
21	4.1339 105	7.4803 190	1.4173 36	.138 3.5	.138 3.5	6.6457 168.8	4.9921 126.8	5.315 135.0
222	4.3307 110	7.8740 200	1.4961 38	.138 3.5	.138 3.5	7.0276 178.5	5.2165 132.5	5.571 141.5
24	4.7244 120	8.4646 215	1.5748 40	.138 3.5	.138 3.5	7.5394 191.5	5.6496 143.5	6.024 153.0
26	5.1181 130	9.0551 230	1.5748 40	.157 4.0	.157 4.0	8.0315 204.0	6.1417 156.0	6.516 165.5
228	5.5118 140	9.8425 250	1.6535 42	.157 4.0	.157 4.0	8.7008 221.0	6.6535 169.0	7.067 179.5
30	5.9055 150	10.6299 270	1.7717 45	.157 4.0	.157 4.0	9.3701 238.0	7.1654 182.0	7.598 193.0
32	6.2992 160	11.4173 290	1.8898 48	.157 4.0	.157 4.0	10.0394 255.0	7.6772 195.0	8.150 207.0
234	6.6929 170	12.2047 310	2.0472 52	.197 5.0	.197 5.0	10.7087 272.0	8.1890 208.0	8.681 220.5
36	7.0866 180	12.5984 320	2.0472 52	.197 5.0	.197 5.0	11.1024 282.0	8.5827 218.0	9.075 230.5
38	7.4803 190	13.3858 340	2.1654 55	.197 5.0	.197 5.0	11.7717 299.0	9.0945 231.0	9.626 244.5
240	7.8740 200	14.1732 360	2.2835 58	.197 5.0	.197 5.0	12.4409 316.0	9.6063 244.0	10.157 258.0
44	8.6614 220	15.7480 400	2.5591 65	.197 5.0	.197 5.0	13.7795 350.0	10.6299 270.0	11.260 286.0
48	9.4488 240	17.3228 440	2.8346 72	.197 5.0	.197 5.0	15.1575 385.0	11.6142 295.0	12.323 313.0
252	10.2362 260	18.8976 480	3.1496 80	.236 6.0	.236 6.0	16.5354 420.0	12.5984 320.0	13.386 340.0
56	11.0236 280	19.6850 500	3.1496 80	.236 6.0	.236 6.0	17.3228 440.0	13.3858 340.0	14.173 360.0
60	11.8110 300	21.2598 540	3.3465 85	.236 6.0	.236 6.0	18.7402 476.0	14.3307 364.0	15.236 387.0
264	12.5984 320	22.8346 580	3.6220 92	.236 6.0	.236 6.0	20.0787 510.0	15.3543 390.0	16.339 415.0

CYLINDRICAL ROLLER BEARINGS

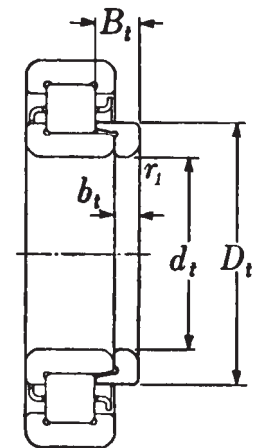
Units: **INCHES**
Millimeters



Basic Load Ratings (lbs)		Weight (lbs)		Separate Thrust Collar No.	Thrust Collar Dimensions					Weight (lbs)
Dynamic C	Static C_o	N2	NU2		d_t	D_t	B_t	b_t	r_t	
3,750	3,150	.240	.245	HJ204	.787	1.181	.266	.118	.039	.026
					20	30.0	6.75	3	1.0	
4,200	3,800	.295	.302	05	.984	1.378	.285	.118	.039	.033
					25	35.0	7.25	3	1.0	
5,600	5,250	.448	.456	06	1.181	1.646	.325	.157	.039	.055
					30	41.8	8.25	4	1.0	
8,000	7,700	.637	.650	HJ207	1.378	1.874	.315	.157	.039	.066
					35	47.6	8.00	4	1.0	
9,850	9,650	.816	.833	08	1.575	2.134	.354	.197	.079	.101
					40	54.2	9.00	5	2.0	
10,400	10,500	.933	.952	09	1.772	2.323	.374	.197	.079	.117
					45	59.0	9.50	5	2.0	
11,400	12,200	1.06	1.08	HJ210	1.969	2.543	.394	.197	.079	.139
					50	64.6	10.00	5	2.0	
13,700	14,900	1.38	1.41	11	2.165	2.787	.433	.236	.079	.185
					55	70.8	11.00	6	2.0	
16,200	18,000	1.77	1.80	12	2.362	3.087	.433	.236	.098	.238
					60	78.4	11.00	6	2.5	
18,900	21,200	2.20	2.25	HJ213	2.559	3.339	.433	.236	.098	.271
					65	84.8	11.00	6	2.5	
19,600	22,700	2.43	2.47	14	2.756	3.528	.492	.276	.098	.331
					70	89.6	12.50	7	2.5	
22,700	26,400	2.67	2.71	15	2.953	3.701	.492	.276	.098	.344
					75	94.0	12.50	7	2.5	
25,000	29,200	3.24	3.31	HJ216	3.150	3.984	.531	.315	.118	.456
					80	101.2	13.50	8	3.0	
28,300	33,500	4.03	4.12	17	3.346	4.260	.551	.315	.118	.551
					85	108.2	14.00	8	3.0	
34,000	40,000	4.96	5.07	18	3.543	4.496	.591	.354	.118	.672
					90	114.2	15.00	9	3.0	
37,000	44,000	6.00	6.13	HJ219	3.740	4.764	.610	.354	.138	.776
					95	121.0	15.50	9	3.5	
41,000	49,000	7.19	7.34	20	3.937	5.039	.669	.394	.138	.979
					100	128.0	17.00	10	3.5	
45,000	54,000	8.53	8.71	21	4.134	5.315	.689	.394	.138	1.11
					105	135.0	17.50	10	3.5	
54,000	65,000	10.0	10.2	HJ222	4.331	5.571	.728	.433	.138	1.36
					110	141.5	18.50	11	3.5	
61,000	76,000	12.0	12.3	24	4.724	6.024	.748	.433	.138	1.58
					120	153.0	19.00	11	3.5	
63,500	81,500	16.3	16.6	26	5.118	6.516	.748	.433	.157	1.85
					130	165.5	19.00	11	4.0	
73,000	94,500	20.4	20.9	HJ228	5.512	7.067	.748	.433	.157	2.20
					140	179.5	19.00	11	4.0	
84,500	111,000	25.8	26.2	30	5.906	7.598	.807	.472	.157	2.73
					150	193.0	20.50	12	4.0	
96,000	128,000	31.3	32.0	32	6.299	8.150	.827	.472	.157	3.26
					160	207.0	21.00	12	4.0	
107,000	143,000	38.8	39.7	HJ234	6.693	8.681	.866	.472	.197	3.75
					170	220.5	22.00	12	5.0	
111,000	152,000	40.3	41.2	36	7.087	9.075	.866	.472	.197	3.97
					180	230.5	22.00	12	5.0	
125,000	173,000	48.7	49.6	38	7.480	9.626	.925	.512	.197	4.85
					190	244.5	23.50	13	5.0	
140,000	195,000	57.8	58.9	HJ240	7.874	10.157	.984	.551	.197	5.73
					200	258.0	25.00	14	5.0	
171,000	242,000	80.9	82.5	44	8.661	11.260	1.083	.591	.197	7.83
					220	286.0	27.50	15	5.0	
211,000	300,000	109	111	48	9.449	12.323	1.161	.630	.197	10.3
					240	313.0	29.50	16	5.0	
258,000	375,000	145	148	HJ252	10.236	13.386	1.299	.709	.236	13.7
					260	340.0	33.00	18	6.0	
267,000	395,000	153	156	56	11.024	14.173	1.299	.709	.236	16.3
					280	360.0	33.00	18	6.0	
315,000	465,000	190	194	60	11.811	15.236	1.358	.787	.236	20.2
					300	387.0	34.50	20	6.0	
360,000	540,000	240	245	HJ264	12.598	16.339	1.457	.827	.236	24.9
					320	415.0	37.00	21	6.0	



NU2

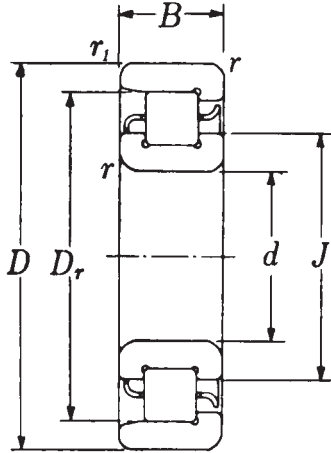


HJ2
(NH2=NJ2+HJ2)

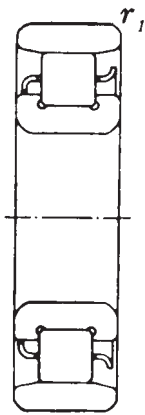
These figures may vary slightly according to cage type and type of bearing.



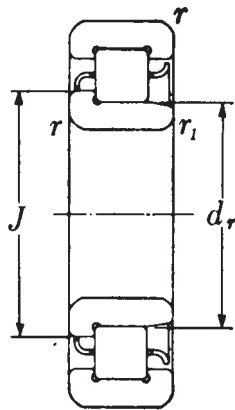
Units: INCHES
Millimeters



NF3



N3



NJ3

CYLINDRICAL ROLLER BEARINGS

Bearing No.	Bore	O.D.	Width	Fillet Radii		Outer Ring I.D.	Inner Ring O.D.	Shoulder Height
	<i>d</i>	<i>D</i>		<i>r</i>	<i>r₁</i>				D_{r}	d_{r}	J
304	.7874 20	2.0472 52	.5906 15	.079 2.0	.039 1.0	1.7520 44.5	1.1220 28.5	1.252 31.8
05	.9843 25	2.4409 62	.6693 17	.079 2.0	.079 2.0	2.0866 53.0	1.3780 35.0	1.535 39.0
06	1.1811 30	2.8346 72	.7480 19	.079 2.0	.079 2.0	2.4409 62.0	1.6535 42.0	1.807 45.9
307	1.3780 35	3.1496 80	.8268 21	.098 2.5	.079 2.0	2.6850 68.2	1.8189 46.2	2.000 50.8
08	1.5748 40	3.5433 90	.9055 23	.098 2.5	.098 2.5	3.0512 77.5	2.1063 53.5	2.299 58.4
09	1.7717 45	3.9370 100	.9843 25	.098 2.5	.098 2.5	3.4055 86.5	2.3031 58.5	2.520 64.0
310	1.9685 50	4.3307 110	1.0630 27	.118 3.0	.118 3.0	3.7402 95.0	2.5591 65.0	2.795 71.0
11	2.1654 55	4.7244 120	1.1417 29	.118 3.0	.118 3.0	4.1142 104.5	2.7756 70.5	3.039 77.2
12	2.3622 60	5.1181 130	1.2205 31	.138 3.5	.138 3.5	4.4488 113.0	3.0315 77.0	3.315 84.2
313	2.5591 65	5.5118 140	1.2992 33	.138 3.5	.138 3.5	4.7835 121.5	3.2874 83.5	3.583 91.0
14	2.7559 70	5.9055 150	1.3780 35	.138 3.5	.138 3.5	5.1181 130.0	3.5433 90.0	3.858 98.0
15	2.9528 75	6.2992 160	1.4567 37	.138 3.5	.138 3.5	5.4921 139.5	3.7598 95.5	4.102 104.2
316	3.1496 80	6.6929 170	1.5354 39	.138 3.5	.138 3.5	5.7874 147.0	4.0551 103.0	4.402 111.8
17	3.3465 85	7.0866 180	1.6142 41	.157 4.0	.157 4.0	6.1417 156.0	4.2520 108.0	4.626 117.5
18	3.5433 90	7.4803 190	1.6929 43	.157 4.0	.157 4.0	6.4961 165.0	4.5276 115.0	4.921 125.0
319	3.7402 95	7.8740 200	1.7717 45	.157 4.0	.157 4.0	6.8307 173.5	4.7835 121.5	5.197 132.0
20	3.9370 100	8.4646 215	1.8504 47	.157 4.0	.157 4.0	7.3031 185.5	5.0984 129.5	5.531 140.5
21	4.1339 105	8.8583 225	1.9291 49	.157 4.0	.157 4.0	7.6772 195.0	5.3150 135.0	5.787 147.0
322	4.3307 110	9.4488 240	1.9685 50	.157 4.0	.157 4.0	8.1496 207.0	5.6299 143.0	6.122 155.5
24	4.7244 120	10.2362 260	2.1654 55	.157 4.0	.157 4.0	8.8976 226.0	6.0630 154.0	6.634 168.5
26	5.1181 130	11.0236 280	2.2835 58	.197 5.0	.197 5.0	9.5669 243.0	6.5748 167.0	7.165 182.0
328	5.5118 140	11.8110 300	2.4409 62	.197 5.0	.197 5.0	10.2362 260.0	7.0866 180.0	7.717 196.0
30	5.9055 150	12.5984 320	2.5591 65	.197 5.0	.197 5.0	10.9055 277.0	7.5984 193.0	8.268 210.0
32	6.2992 160	13.3858 340	2.6772 68	.197 5.0	.197 5.0	11.4961 292.0	8.1890 208.0	8.858 225.0
334	6.6929 170	14.1732 360	2.8346 72	.197 5.0	.197 5.0	12.2047 310.0	8.6614 220.0	9.370 238.0
36	7.0866 180	14.9606 380	2.9528 75	.197 5.0	.197 5.0	12.9134 328.0	9.1339 232.0	9.921 252.0
38	7.4803 190	15.7480 400	3.0709 78	.236 6.0	.236 6.0	13.5827 345.0	9.6457 245.0	10.433 265.0
340	7.8740 200	16.5354 420	3.1496 80	.236 6.0	.236 6.0	14.1732 360.0	10.2362 260.0	11.024 280.0
44	8.6614 220	18.1102 460	3.4646 88	.236 6.0	.236 6.0	15.5906 396.0	11.1811 284.0	12.087 307.0
48	9.4488 240	19.6850 500	3.7402 95	.236 6.0	.236 6.0	16.9291 430.0	12.2047 310.0	13.189 335.0
352	10.2362 260	21.2598 540	4.0157 102	.315 8.0	.315 8.0	18.2677 464.0	13.2283 336.0	14.252 362.0
56	11.0236 280	22.8346 580	4.2520 108	.315 8.0	.315 8.0	19.6063 498.0	14.2520 362.0	15.354 390.0

CYLINDRICAL ROLLER BEARINGS

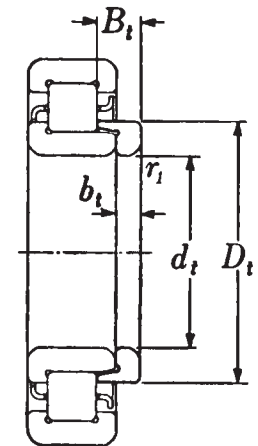
Units: INCHES
Millimeters



Basic Load Ratings (lbs)		Weight (lbs)		Separate Thrust Collar No.	Thrust Collar Dimensions					Weight (lbs)
Dynamic C	Static C_o	N3	NU3		d_t	D_t	B_t	b_t	r_t	
5,200	4,350	.328	.337	HJ304	.787 20	1.252 31.8	.295 7.5	.157 4	.039 1.0	.037
7,050	6,250	.518	.531	05	.984 25	1.535 39.0	.315 8.0	.157 4	.079 2.0	.055
8,700	7,900	.772	.789	06	1.181 30	1.807 45.9	.374 9.5	.197 5	.079 2.0	.086
11,200	10,500	1.03	1.05	HJ307	1.378 35	2.000 50.8	.433 11.0	.236 6	.079 2.0	.123
13,200	12,800	1.42	1.45	08	1.575 40	2.299 58.4	.492 12.5	.276 7	.098 2.5	.183
17,700	17,400	1.89	1.93	09	1.772 45	2.520 64.0	.492 12.5	.276 7	.098 2.5	.218
19,500	19,400	2.45	2.51	HJ310	1.969 50	2.795 71.0	.551 14.0	.315 8	.118 3.0	.313
24,900	25,000	3.13	3.20	11	2.165 55	3.039 77.2	.591 15.0	.354 9	.118 3.0	.401
27,800	28,400	3.90	3.99	12	2.362 60	3.315 84.2	.610 15.5	.354 9	.138 3.5	.485
30,500	31,000	4.81	4.92	HJ313	2.559 65	3.583 91.0	.669 17.0	.394 10	.138 3.5	.617
35,500	38,000	5.84	5.97	14	2.756 70	3.858 98.0	.689 17.5	.394 10	.138 3.5	.728
43,000	46,000	7.01	7.17	15	2.953 75	4.102 104.2	.728 18.5	.433 11	.138 3.5	.882
45,000	50,000	8.31	8.51	HJ316	3.150 80	4.402 111.8	.768 19.5	.433 11	.138 3.5	1.04
50,500	55,500	9.79	10.0	17	3.346 85	4.626 117.5	.807 20.5	.472 12	.157 4.0	1.23
54,000	59,500	11.4	11.7	18	3.543 90	4.921 125.0	.827 21.0	.472 12	.157 4.0	1.39
61,500	70,000	13.2	13.5	HJ319	3.740 95	5.197 132.0	.886 22.5	.512 13	.157 4.0	1.68
71,000	81,500	16.1	16.5	20	3.937 100	5.531 140.5	.886 22.5	.512 13	.157 4.0	1.97
81,000	94,000	22.1	22.5	21	4.134 105	5.787 147.0	.886 22.5	.512 13	.157 4.0	2.14
90,500	105,000	25.8	26.5	HJ322	4.331 110	6.122 155.5	.906 23.0	.551 14	.157 4.0	2.58
107,000	124,000	33.3	34.2	24	4.724 120	6.634 168.5	.925 23.5	.551 14	.157 4.0	3.09
126,000	150,000	39.2	40.1	26	5.118 130	7.165 182.0	.945 24.0	.551 14	.197 5.0	3.57
139,000	168,000	48.1	49.2	HJ328	5.512 140	7.717 196.0	1.024 26.0	.591 15	.197 5.0	4.25
149,000	182,000	57.1	58.4	30	5.906 150	8.268 210.0	1.043 26.5	.591 15	.197 5.0	5.22
157,000	197,000	67.5	69.0	32	6.299 160	8.858 225.0	1.102 28.0	.591 15	.197 5.0	6.06
179,000	227,000	79.6	81.6	HJ334	6.693 170	9.370 238.0	1.161 29.5	.630 16	.197 5.0	7.17
203,000	260,000	92.4	94.6	36	7.087 180	9.921 252.0	1.201 30.5	.669 17	.197 5.0	8.49
219,000	283,000	106	109	38	7.480 190	10.433 265.0	1.260 32.0	.709 18	.236 6.0	9.81
219,000	286,000	120	123	HJ340	7.874 200	11.024 280.0	1.299 33.0	.709 18	.236 6.0	11.0
268,000	355,000	158	162	44	8.661 220	12.087 307.0	1.417 36.0	.787 20	.236 6.0	15.5
320,000	440,000	201	206	48	9.449 240	13.189 335.0	1.555 39.5	.866 22	.236 6.0	18.1
365,000	500,000	251	258	HJ352	10.236 260	14.252 362.0	1.693 43.0	.945 24	.315 8.0	25.1
410,000	570,000	306	313	56	11.024 280	15.354 390.0	1.811 46.0	1.024 26	.315 8.0	30.6



NU3



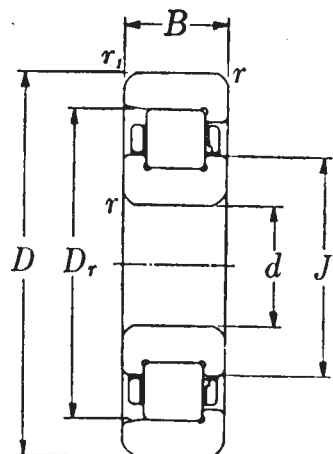
HJ3
(NH3=NJ3+HJ3)

● These figures may vary slightly according to cage type and type of bearing.

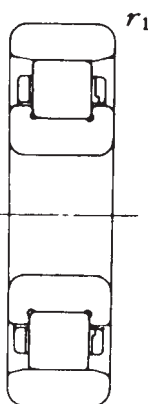
NTN

SERIES
NF4 • N4
NJ4 • NU4

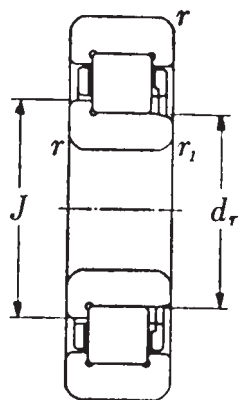
Units: **INCHES**
 Millimeters



NF4



N4



NJ4

CYLINDRICAL ROLLER BEARINGS

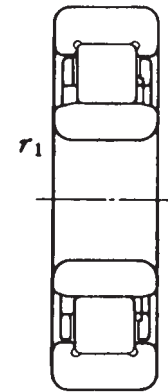
Bearing No.	Bore	O.D.	Width	Fillet Radius		Outer Ring I.D.	Inner Ring O.D.	Shoulder Height
	<i>d</i>	<i>D</i>	<i>B</i>	<i>r</i>	<i>r₁</i>	<i>D_r</i>	<i>d_r</i>	
406	1.1811 30	3.5433 90	.9055 23	.098 2.5		2.8740 73.0	1.7717 45.0	1.988 50.5
07	1.3780 35	3.9370 100	.9843 25	.098 2.5		3.2677 83.0	2.0866 53.0	2.323 59.0
08	1.5748 40	4.3307 110	1.0630 27	.118 3.0		3.6220 92.0	2.2835 58.0	2.551 64.8
409	1.7717 45	4.7244 120	1.1417 29	.118 3.0		3.9567 100.5	2.5394 64.5	2.827 71.8
10	1.9685 50	5.1181 130	1.2205 31	.138 3.5		4.3622 110.8	2.7874 70.8	3.102 78.8
11	2.1654 55	5.5118 140	1.2992 33	.138 3.5		4.6142 117.2	3.0394 77.2	3.354 85.2
412	2.3622 60	5.9055 150	1.3780 35	.138 3.5		5.0000 127.0	3.2677 83.0	3.614 91.8
13	2.5591 65	6.2992 160	1.4567 37	.138 3.5		5.3268 135.3	3.5157 89.3	3.878 98.5
14	2.7559 70	7.0866 180	1.6535 42	.157 4.0		5.9843 152.0	3.9370 100.0	4.350 110.5
415	2.9528 75	7.4803 190	1.7717 45	.157 4.0		6.3189 160.5	4.1142 104.5	4.567 116.0
16	3.1496 80	7.8740 200	1.8898 48	.157 4.0		6.6929 170.0	4.3307 110.0	4.803 122.0
17	3.3465 85	8.2677 210	2.0472 52	.197 5.0		6.9685 177.0	4.4488 113.0	4.961 126.0
418	3.5433 90	8.8583 225	2.1260 54	.197 5.0		7.5394 191.5	4.8622 123.5	5.394 137.0
19	3.7402 95	9.4488 240	2.1654 55	.197 5.0		7.9331 201.5	5.2559 133.5	5.787 147.0
20	3.9370 100	9.8425 250	2.2835 58	.197 5.0		8.3071 211.0	5.4724 139.0	6.043 153.5
421	4.1339 105	10.2362 260	2.3622 60	.197 5.0		8.6811 220.5	5.6890 144.5	6.280 159.5
22	4.3307 110	11.0236 280	2.5591 65	.197 5.0		9.2520 235.0	6.1024 155.0	6.732 171.0
24	4.7244 120	12.2047 310	2.8346 72	.236 6.0		10.2362 260.0	6.6929 170.0	7.402 188.0
426	5.1181 130	13.3858 340	3.0709 78	.236 6.0		11.2205 285.0	7.2835 185.0	8.071 205.0
28	5.5118 140	14.7132 374	3.2283 82	.236 6.0		11.8898 302.0	7.7953 198.0	8.622 219.0
30	5.9055 150	14.9606 380	3.3465 85	.236 6.0		12.4803 317.0	8.3858 213.0	9.213 234.0

CYLINDRICAL ROLLER BEARINGS

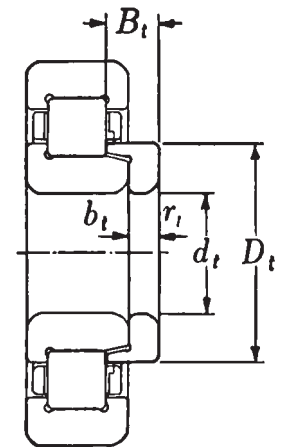
Units: INCHES
Millimeters



Basic Load Ratings (lbs)		Weight (lbs)		Separate Thrust Collar No.	Thrust Collar Dimensions					Weight (lbs)
Dynamic C	Static C_o	N4	NU4		d_t	D_t	B_t	b_t	r_t	
14,100	12,400	1.75	1.79	HJ406	1.181 30	1.988 50.5	.453 11.5	.276 7	.098 2.5	.176
16,900	15,500	2.29	2.36	07	1.378 35	2.323 59.0	.512 13.0	.315 8	.098 2.5	.265
21,500	20,000	3.02	3.09	08	1.575 40	2.551 64.8	.512 13.0	.315 8	.118 3.0	.309
25,900	25,100	3.77	3.86	HJ409	1.772 45	2.827 71.8	.531 13.5	.315 8	.118 3.0	.386
31,000	30,500	4.70	4.81	10	1.969 50	3.102 78.8	.571 14.5	.354 9	.138 3.5	.507
31,500	31,000	5.78	5.91	11	2.165 55	3.354 85.2	.650 16.5	.394 10	.138 3.5	.639
37,500	38,000	6.97	7.14	HJ412	2.362 60	3.614 91.8	.650 16.5	.394 10	.138 3.5	.750
44,000	45,500	8.36	8.55	13	2.559 65	3.878 98.5	.709 18.0	.433 11	.138 3.5	.926
54,500	58,000	12.2	12.5	14	2.756 70	4.350 110.5	.787 20.0	.472 12	.157 4.0	1.33
59,000	61,500	14.5	14.8	HJ415	2.953 75	4.567 116.0	.846 21.5	.512 13	.157 4.0	1.57
67,500	71,000	17.0	17.4	16	3.150 80	4.803 122.0	.866 22.0	.512 13	.157 4.0	1.72
75,000	78,500	20.2	20.7	17	3.346 85	4.961 126.0	.945 24.0	.551 14	.197 5.0	1.94
84,000	90,000	24.0	24.7	HJ418	3.543 90	5.394 137.0	.945 24.0	.551 14	.197 5.0	2.31
90,000	99,500	28.4	29.1	19	3.740 95	5.787 147.0	1.004 25.5	.591 15	.197 5.0	2.87
101,000	111,000	32.0	32.8	20	3.937 100	6.043 153.5	1.063 27.0	.630 16	.197 5.0	3.31
112,000	125,000	35.7	36.6	HJ421	4.134 105	6.280 159.5	1.063 27.0	.630 16	.197 5.0	3.64
123,000	140,000	45.4	46.5	22	4.331 110	6.732 171.0	1.161 29.5	.669 17	.197 5.0	4.63
151,000	173,000	62.2	63.7	24	4.724 120	7.402 188.0	1.201 30.5	.669 17	.236 6.0	5.73
185,000	215,000	81.1	83.1	HJ426	5.118 130	8.071 205.0	1.260 32.0	.709 18	.236 6.0	7.28
197,000	230,000	95.2	97.7	28	5.512 140	8.622 219.0	1.299 33.0	.709 18	.236 6.0	8.27
209,000	253,000	190	112	30	5.906 150	9.213 234.0	1.437 36.5	.787 20	.236 6.0	10.40



NU4



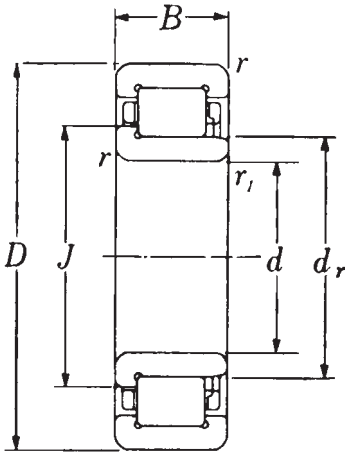
HJ4

NH4=NJ4+HJ4

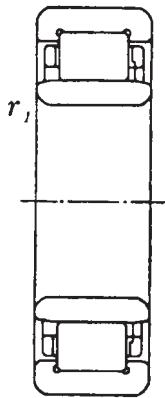
① These figures may vary slightly according to cage type and type of bearing.



Units: **INCHES**
Millimeters



NJ22



NU22

CYLINDRICAL ROLLER BEARINGS

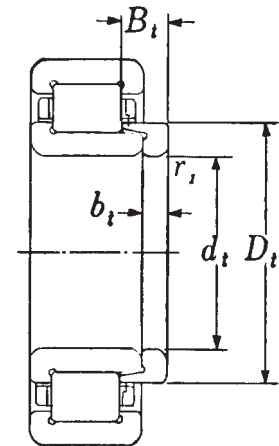
Bearing No.	Bore	O.D.	Width <i>B</i>	Fillet Radii		Inner Ring O.D. <i>d_r</i>	Shoulder Height <i>J</i>
	<i>d</i>	<i>D</i>		<i>r</i>	<i>r₁</i>		
2205	.9843 25	2.0472 52	.7087 18	.059 1.5	.039 1.0	1.2598 32.0	1.378 35.0
06	1.1811 30	2.4409 62	.7874 20	.059 1.5	.039 1.0	1.5157 38.5	1.646 41.8
07	1.3780 35	2.8346 72	.9055 23	.079 2.0	.039 1.0	1.7244 43.8	1.874 47.6
2208	1.5748 40	3.1496 80	.9055 23	.079 2.0	.079 2.0	1.9685 50.0	2.134 54.2
09	1.7717 45	3.3465 85	.9055 23	.079 2.0	.079 2.0	2.1654 55.0	2.323 59.0
10	1.9685 50	3.5433 90	.9055 23	.079 2.0	.079 2.0	2.3780 60.4	2.543 64.6
2211	2.1654 55	3.9370 100	.9843 25	.098 2.5	.079 2.0	2.6181 66.5	2.787 70.8
12	2.3622 60	4.3307 110	1.1024 28	.098 2.5	.098 2.5	2.8937 73.5	3.087 78.4
13	2.5591 65	4.7244 120	1.2205 31	.098 2.5	.098 2.5	3.1339 79.6	3.339 84.8
2214	2.7559 70	4.9213 125	1.2205 31	.098 2.5	.098 2.5	3.3268 84.5	3.528 89.6
15	2.9528 75	5.1181 130	1.2205 31	.098 2.5	.098 2.5	3.4843 88.5	3.701 94.0
16	3.1496 80	5.5118 140	1.2992 33	.118 3.0	.118 3.0	3.7520 95.3	3.984 101.2
2217	3.3465 85	5.9055 150	1.4173 36	.118 3.0	.118 3.0	4.0079 101.8	4.260 108.2
18	3.5433 90	6.2992 160	1.5748 40	.118 3.0	.118 3.0	4.2126 107.0	4.496 114.2
19	3.7402 95	6.6929 170	1.6929 43	.138 3.5	.138 3.5	4.4685 113.5	4.764 121.0
2220	3.9370 100	7.0866 180	1.8110 46	.138 3.5	.138 3.5	4.7244 120.0	5.039 128.0
22	4.3307 110	7.8740 200	2.0866 53	.138 3.5	.138 3.5	5.2165 132.5	5.571 141.5
24	4.7244 120	8.4646 215	2.2835 58	.138 3.5	.138 3.5	5.6496 143.5	6.024 153.0
2226	5.1181 130	9.0551 230	2.5197 64	.157 4.0	.157 4.0	6.1417 156.0	6.516 165.5
28	5.5118 140	9.8425 250	2.6772 68	.157 4.0	.157 4.0	6.6535 169.0	7.067 179.5
30	5.9055 150	10.6299 270	2.8740 73	.157 4.0	.157 4.0	7.1654 182.0	7.598 193.0
2232	6.2992 160	11.4173 290	3.1496 80	.157 4.0	.157 4.0	7.6772 195.0	8.150 207.0
34	6.6929 170	12.2047 310	3.3858 86	.197 5.0	.197 5.0	8.1890 208.0	8.681 220.5
36	7.0866 180	12.5984 320	3.3858 86	.197 5.0	.197 5.0	8.5827 218.0	9.075 230.5
2238	7.4803 190	13.3858 340	3.6220 92	.197 5.0	.197 5.0	9.0945 231.0	9.626 244.5
40	7.8740 200	14.1732 360	3.8583 98	.197 5.0	.197 5.0	9.6063 244.0	10.157 258.0

CYLINDRICAL ROLLER BEARINGS

Units: **INCHES**
Millimeters



Basic Load Ratings (lbs)		Weight (lbs)		Separate Thrust Collar No.	Thrust Collar Dimensions					Weight (lbs)
Dynamic C	Static C_o	NJ22	NU22		d_t	D_t	B_t	b_t	r_1	
5,650	5,550	.412	.401	HJ2205	.984 25	1.378 35.0	.295 7.5	.118 3.0	.039 1.0	.033
7,850	8,050	.639	.631	06	1.181 30	1.646 41.8	.335 8.5	.157 4.0	.039 1.0	.055
11,700	12,500	1.00	.974	07	1.378 35	1.874 47.6	.335 8.5	.157 4.0	.039 1.0	.068
13,100	13,900	1.21	1.18	HJ2208	1.575 40	2.134 54.2	.374 9.5	.197 5.0	.079 2.0	.104
13,800	15,200	1.31	1.28	09	1.772 45	2.323 59.0	.374 9.5	.197 5.0	.079 2.0	.117
15,200	17,700	1.42	1.38	10	1.969 50	2.543 64.6	.374 9.5	.197 5.0	.079 2.0	.134
17,800	20,900	1.94	1.88	HJ2211	2.165 55	2.787 70.8	.433 11.0	.236 6.0	.079 2.0	.185
22,700	27,800	2.65	2.58	12	2.362 60	3.087 78.4	.433 11.0	.236 6.0	.098 2.5	.238
27,000	33,500	3.48	3.40	13	2.559 65	3.339 84.8	.453 11.5	.236 6.0	.098 2.5	.278
28,100	36,000	3.70	3.59	HJ2214	2.756 70	3.528 89.6	.492 12.5	.276 7.0	.098 2.5	.331
30,500	38,500	3.88	3.77	15	2.953 75	3.701 94.0	.492 12.5	.276 7.0	.098 2.5	.344
34,500	44,500	4.83	4.70	16	3.150 80	3.984 101.2	.531 13.5	.315 8.0	.118 3.0	.456
40,000	52,000	6.11	5.93	HJ2217	3.346 85	4.260 108.2	.551 14.0	.315 8.0	.118 3.0	.551
46,500	59,500	7.78	7.56	18	3.543 90	4.496 114.2	.630 16.0	.354 9.0	.118 3.0	.694
52,000	67,000	9.50	9.24	19	3.740 95	4.764 121.0	.650 16.5	.354 9.0	.138 3.5	.800
58,000	76,000	11.4	11.1	HJ2220	3.937 100	5.039 128.0	.709 18.0	.394 10.0	.138 3.5	1.01
75,000	99,500	16.4	16.0	22	4.331 110	5.571 141.5	.807 20.5	.433 11.0	.138 3.5	1.42
86,000	118,000	20.5	19.9	24	4.724 120	6.024 153.0	.866 22.0	.433 11.0	.138 3.5	1.69
89,000	126,000	25.6	24.9	HJ2226	5.118 130	6.516 165.5	.984 25.0	.433 11.0	.157 4.0	2.10
105,000	151,000	32.4	31.5	28	5.512 140	7.067 179.5	.984 25.0	.433 11.0	.157 4.0	2.51
123,000	180,000	40.8	39.7	30	5.906 150	7.598 193.0	1.043 26.5	.472 12.0	.157 4.0	3.06
142,000	211,000	52.0	50.7	HJ2232	6.299 160	8.150 207.0	1.102 28.0	.472 12.0	.157 4.0	3.73
161,000	242,000	64.2	62.4	34	6.693 170	8.681 220.5	1.142 29.0	.472 12.0	.197 5.0	4.25
167,000	257,000	66.8	65.0	36	7.087 180	9.075 230.5	1.142 29.0	.472 12.0	.197 5.0	4.50
187,000	290,000	81.1	78.9	HJ2238	7.480 190	9.626 244.5	1.240 31.5	.512 13.0	.197 5.0	5.56
208,000	325,000	97.4	94.8	40	7.874 200	10.157 258.0	1.339 34.0	.551 14.0	.197 5.0	6.59



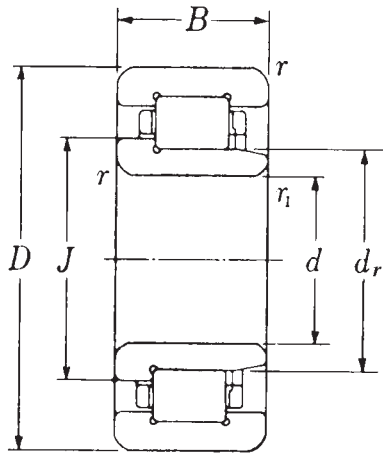
NJ22
NH22=NJ22+HJ22

① These figures may vary according to cage type and type of bearing.

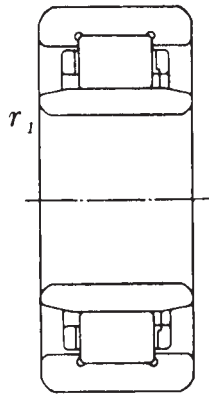


Units: **INCHES**
Millimeters

CYLINDRICAL ROLLER BEARINGS



NJ23



NU23

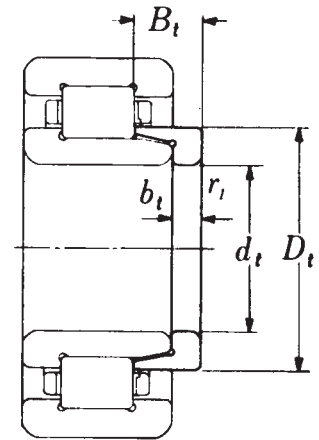
Bearing No.	Bore		Width	Fillet Radii		Inner Ring O.D.	Shoulder Height
	<i>d</i>	<i>D</i>		<i>B</i>	<i>r</i>			r_{1}	d_{r}	J
2305	.9843	2.4409	.9449	.079	.079	1.3780	1.535
	25	62	24	2.0	2.0	35.0	39.0
06	1.1811	2.8346	1.0630	.079	.079	1.6535	1.807
	30	72	27	2.0	2.0	42.0	45.9
07	1.3780	3.1496	1.2205	.098	.079	1.8189	2.000
	35	80	31	2.5	2.0	46.2	50.8
2308	1.5748	3.5433	1.2992	.098	.098	2.1063	2.299
	40	90	33	2.5	2.5	53.5	58.4
09	1.7717	3.9370	1.4173	.098	.098	2.3031	2.520
	45	100	36	2.5	2.5	58.5	64.0
10	1.9685	4.3307	1.5748	.118	.118	2.5591	2.795
	50	110	40	3.0	3.0	65.0	71.0
2311	2.1654	4.7244	1.6929	.118	.118	2.7756	3.039
	55	120	43	3.0	3.0	70.5	77.2
12	2.3622	5.1181	1.8110	.138	.138	3.0315	3.315
	60	130	46	3.5	3.5	77.0	84.2
13	2.5591	5.5118	1.8898	.138	.138	3.2874	3.583
	65	140	48	3.5	3.5	83.5	91.0
2314	2.7559	5.9055	2.0079	.138	.138	3.5433	3.858
	70	150	51	3.5	3.5	90.0	98.0
15	2.9528	6.2992	2.1654	.138	.138	3.7598	4.102
	75	160	55	3.5	3.5	95.5	104.2
16	3.1496	6.6929	2.2835	.138	.138	4.0551	4.402
	80	170	58	3.5	3.5	103.0	111.8
2317	3.3465	7.0866	2.3622	.157	.157	4.2520	4.626
	85	180	60	4.0	4.0	108.0	117.5
18	3.5433	7.4803	2.5197	.157	.157	4.5276	4.921
	90	190	64	4.0	4.0	115.0	125.0
19	3.7402	7.8740	2.6378	.157	.157	4.7835	5.197
	95	200	67	4.0	4.0	121.5	132.0
2320	3.9370	8.4646	2.8740	.157	.157	5.0984	5.531
	100	215	73	4.0	4.0	129.5	140.5
22	4.3307	9.4488	3.1496	.157	.157	5.6299	6.122
	110	240	80	4.0	4.0	143.0	155.5
24	4.7244	10.2362	3.3858	.157	.157	6.0630	6.634
	120	260	86	4.0	4.0	154.0	168.5
2326	5.1181	11.0236	3.6614	.197	.197	6.5748	7.165
	130	280	93	5.0	5.0	167.0	182.0
28	5.5118	11.8110	4.0157	.197	.197	7.0866	7.717
	140	300	102	5.0	5.0	180.0	196.0
30	5.9055	12.5984	4.2520	.197	.197	7.5984	8.268
	150	320	108	5.0	5.0	193.0	210.0
2332	6.2992	13.3858	4.4882	.197	.197	8.1890	8.858
	160	340	114	5.0	5.0	208.0	225.0
34	6.6929	14.1732	4.7244	.197	.197	8.6614	9.370
	170	360	120	5.0	5.0	220.0	238.0
36	7.0866	14.9606	4.9606	.197	.197	9.1339	9.921
	180	380	126	5.0	5.0	232.0	252.0
2338	7.4803	15.7480	5.1969	.236	.236	9.6457	10.433
	190	400	132	6.0	6.0	245.0	265.0
40	7.8740	16.5354	5.4331	.236	.236	10.2362	11.024
	200	420	138	6.0	6.0	260.0	280.0

CYLINDRICAL ROLLER BEARINGS

Units: **INCHES**
Millimeters



Basic Load Ratings (lbs)		Weight (lbs)		Separate Thrust Collar No.	Thrust Collar Dimensions					Weight (lbs)
Dynamic C	Static C_o	NJ23	NU23		d_t	D_t	B_t	b_t	r_t	
10,300	10,100	.840	.816	HJ2305	.984 25	1.535 39.0	.354 9.0	.157 4	.079 2.0	.060
11,600	11,400	1.26	1.22	06	1.181 30	1.807 45.9	.453 11.5	.197 5	.079 2.0	.095
14,500	14,800	1.74	1.69	07	1.378 35	2.000 50.8	.551 14.0	.236 6	.079 2.0	.141
18,500	19,800	2.31	2.25	HJ2308	1.575 40	2.299 58.4	.571 14.5	.276 7	.098 2.5	.198
23,800	25,500	3.11	3.02	09	1.772 45	2.520 64.0	.591 15.0	.276 7	.098 2.5	.240
27,100	29,500	4.14	4.03	10	1.969 50	2.795 71.0	.669 17.0	.315 8	.118 3.0	.346
33,500	36,500	5.31	5.16	HJ2311	2.165 55	3.039 77.2	.728 18.5	.354 9	.118 3.0	.448
38,000	40,500	6.61	6.44	12	2.362 60	3.315 84.2	.748 19.0	.354 9	.138 3.5	.540
42,000	48,000	8.00	7.76	13	2.559 65	3.583 91.0	.787 20.0	.394 10	.138 3.5	.670
50,000	59,000	9.72	9.44	HJ2314	2.756 70	3.858 98.0	.807 20.5	.394 10	.138 3.5	.789
61,500	73,500	11.9	11.6	15	2.953 75	4.102 104.2	.846 21.5	.433 11	.138 3.5	.952
61,500	74,500	14.6	14.2	16	3.150 80	4.402 111.8	.906 23.0	.433 11	.138 3.5	1.13
71,000	86,000	16.9	16.4	HJ2317	3.346 85	4.626 117.5	.945 24.0	.472 12	.157 4.0	1.34
73,500	88,500	20.0	19.5	18	3.543 90	4.921 125.0	1.024 26.0	.472 12	.157 4.0	1.55
88,500	112,000	23.1	22.5	19	3.740 95	5.197 132.0	1.043 26.5	.512 13	.157 4.0	1.82
104,000	133,000	29.5	28.7	HJ2320	3.937 100	5.531 140.5	1.083 27.5	.512 13	.157 4.0	2.17
136,000	177,000	40.6	39.5	22	4.331 110	6.122 155.5	1.102 28.0	.551 14	.157 4.0	2.82
159,000	206,000	51.1	49.6	24	4.724 120	6.634 168.5	1.102 28.0	.551 14	.157 4.0	3.37
189,000	253,000	63.9	62.2	HJ2326	5.118 130	7.165 182.0	1.161 29.5	.551 14	.197 5.0	3.97
207,000	281,000	80.2	77.8	28	5.512 140	7.717 196.0	1.319 33.5	.591 15	.197 5.0	4.87
229,000	315,000	96.6	93.7	30	5.906 150	8.268 210.0	1.339 34.0	.591 15	.197 5.0	5.93
241,000	340,000	115	111	HJ2332	6.299 160	8.858 225.0	1.457 37.0	.591 15	.197 5.0	6.97
275,000	395,000	135	131	34	6.693 170	9.370 238.0	1.516 38.5	.630 16	.197 5.0	8.18
310,000	450,000	158	153	36	7.087 180	9.921 252.0	1.575 40.0	.669 17	.197 5.0	9.74
340,000	500,000	183	177	HJ2338	7.480 190	10.433 265.0	1.634 41.5	.709 18	.236 6.0	11.1
340,000	505,000	210	204	40	7.874 200	11.024 280.0	1.752 44.5	.709 18	.236 6.0	12.7



HJ22

NH23=NJ23+HJ23

① These figures may vary slightly according to cage type and type of bearing.

NTN

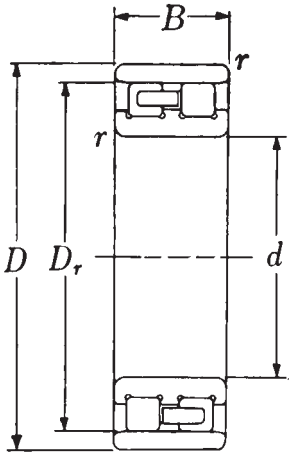
**SERIES
NN30
NN30K**

**PRECISION
AND SUPER
PRECISION
GRADE**

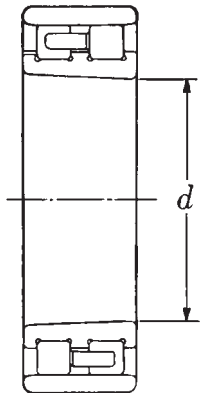
Suffix P5

- AFBMA RBEC 5 •
- ISO Class 5 •

Units: **INCHES**
Millimeters



**Cylindrical
Bore
NN30**

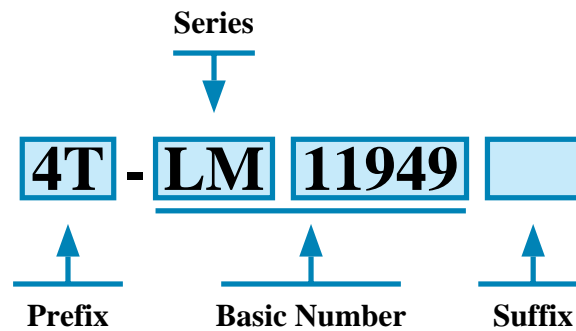


**Tapered
Bore
NN30K
Taper 1:12**

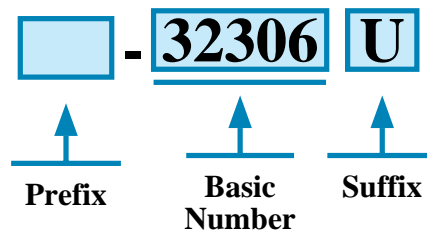
DOUBLE ROW CYLINDRICAL ROLLER BEARINGS

Bearing No.		Bore	O.D.	Width	Fillet Radius	Outer Ring I.D.	Basic Load Ratings (lbs)		Weight (lbs)	
NN30	NN30K	<i>d</i>	<i>D</i>	<i>B</i>	<i>r</i>	<i>D_r</i>	Dynamic <i>C</i>	Static <i>C₀</i>	NN30	NN30K
NN3005	NN3005K	.9843 25	1.8504 47	.6299 16	.039 1.0	1.6260 41.3	5,800	6,750	.271	.262
06	06K	1.1811 30	2.1654 55	.7480 19	.059 1.5	1.9094 48.5	6,900	8,350	.439	.425
07	07K	1.3780 35	2.4409 62	.7874 20	.059 1.5	2.1654 55.0	8,500	10,700	.569	.553
NN3008	NN3008K	1.5748 40	2.6772 68	.8268 21	.059 1.5	2.4016 61.0	9,750	12,500	.688	.668
09	09K	1.7717 45	2.9528 75	.9055 23	.059 1.5	2.6575 67.5	11,600	15,400	.893	.866
10	10K	1.9685 50	3.1496 80	.9055 23	.059 1.5	2.8543 72.5	11,900	16,300	1.00	.970
NN3011	NN3011K	2.1654 55	3.5433 90	1.0236 26	.079 2.0	3.1890 81.0	15,600	21,700	1.44	1.39
12	12K	2.3622 60	3.7402 95	1.0236 26	.079 2.0	3.3898 86.1	16,000	22,900	1.55	1.51
13	13K	2.5591 65	3.9370 100	1.0236 26	.079 2.0	3.5827 91.0	16,800	25,000	1.67	1.62
NN3014	NN3014K	2.7559 70	4.3307 110	1.1811 30	.079 2.0	3.9370 100.0	21,300	32,000	2.29	2.25
15	15K	2.9528 75	4.5276 115	1.1811 30	.079 2.0	4.1339 105.0	21,700	33,500	2.51	2.45
16	16K	3.1496 80	4.9213 125	1.3386 34	.079 2.0	4.4488 113.0	26,000	40,000	3.35	3.24
NN3017	NN3017K	3.3465 85	5.1181 130	1.3386 34	.079 2.0	4.6457 118.0	27,400	43,500	3.55	3.44
18	18K	3.5433 90	5.5118 140	1.4567 37	.098 2.5	5.0000 127.0	32,000	51,000	4.56	4.43
19	19K	3.7402 95	5.7087 145	1.4567 37	.098 2.5	5.1969 132.0	33,000	53,500	4.78	4.63
NN3020	NN3020K	3.9370 100	5.9055 150	1.4567 37	.098 2.5	5.3937 137.0	34,500	57,500	4.98	4.83
21	21K	4.1339 105	6.2992 160	1.6142 41	.118 3.0	5.7480 146.0	44,500	72,500	6.37	6.17
22	22K	4.3307 110	6.6929 170	1.7717 45	.118 3.0	6.1024 155.0	51,500	84,500	8.11	7.85
NN3024	NN3024K	4.7244 120	7.0866 180	1.8110 46	.118 3.0	6.4961 165.0	52,500	88,000	8.77	8.49
26	26K	5.1181 130	7.8740 200	2.0472 52	.118 3.0	7.1654 182.0	64,000	107,000	13.1	12.7
28	28K	5.5118 140	8.2677 210	2.0866 53	.118 3.0	7.5591 192.0	67,000	116,000	14.2	13.8
NN3030	NN3030K	5.9055 150	8.8583 225	2.2047 56	.138 3.5	8.1102 206.0	75,000	132,000	17.2	16.7
32	32K	6.2992 160	9.4488 240	2.3622 60	.138 3.5	8.6220 219.0	84,000	149,000	19.7	19.0
34	34K	6.6929 170	10.2362 260	2.6378 67	.138 3.5	9.2913 236.0	99,000	174,000	27.8	26.9
NN3036	NN3036K	7.0866 180	11.0236 280	2.9134 74	.138 3.5	10.0394 255.0	127,000	224,000	36.6	35.5
38	38K	7.4803 190	11.4173 290	2.9528 75	.138 3.5	10.4331 265.0	130,000	233,000	38.6	37.5
40	40K	7.8740 200	12.2047 310	3.2283 82	.138 3.5	11.1024 282.0	147,000	262,000	47.6	47.2
NN3044	NN3044K	8.6614 220	13.3858 340	3.5433 90	.157 4.0	12.2047 310.0	183,000	330,000	64.6	62.6
48	48K	9.4488 240	14.1732 360	3.6220 92	.157 4.0	12.9921 330.0	192,000	360,000	72.3	70.1
52	52K	10.2362 260	15.7480 400	4.0945 104	.197 5.0	14.3307 364.0	239,000	450,000	104	101
NN3056	NN3056K	11.0236 280	16.5354 420	4.1732 106	.197 5.0	15.1181 384.0	243,000	465,000	113	109
60	60K	11.8110 300	18.1102 460	4.6457 118	.197 5.0	16.4567 418.0	299,000	575,000	156	151
64	64K	12.5984 320	18.8976 480	4.7638 121	.197 5.0	17.2441 438.0	305,000	600,000	168	163

Note: The *d* dimension for the tapered bore is measured from the side of the bearing with the smallest bore dimension.



ISO Series



1. PREFIX

ET:	NTN Endurance tapered roller bearings, case hardened material
4T:	NTN 4-Top tapered roller bearings, case hardened material
E:	Case hardened steel
T:	Internationally interchangeable dimensions

2. SERIES

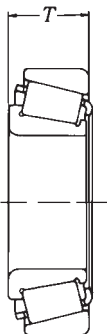
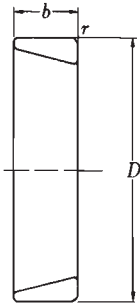
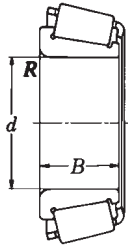
H:	Heavy
HH:	Heavier than heavy
HM:	Heavy-medium
L:	Light
LM:	Light medium
M:	Medium
ISO:	Metric series 320X, 302, 322, 303 and 323

3. SUFFIX

A:	Different bore, O.D., width or radius from basic part number
PK:	Class K for J-Line
PXn:	Special tolerance, n; from 1 onward
S:	Different bore, OD, width or radius from basic part number
U:	ISO series; internationally interchangeable through hardened steel
W:	Slot or keyway
X:	Different bore, O.D., width or radius from basic part number
-0:	AFBMA class 0
-00:	AFBMA class 00
-2:	AFBMA class 2
-3:	AFBMA class 3
-4:	AFBMA class 4



Units: **INCHES**
Millimeters



TAPERED ROLLER BEARINGS								
Cone Number	Bore	Cone Width	Max. shaft fillet radius ¹	Cup Number	O.D.	Cup Width	Max. housing fillet radius ¹	Overall Width
	<i>d</i>	<i>B</i>	<i>R</i>		<i>D</i>	<i>b</i>	<i>r</i>	<i>T</i>
4T-335 SERIES								
4T-335	1.3750 34.925	.8820 22.403	.03 .8	4T-332	3.1496 80.000	.7018 17.826	.05 1.3	.8268 21.000
4T-336	1.6250 41.275	.8820 22.403	.03 .8	4T-332A	3.1496 80.000	.8268 21.000	.09 2.3	.9518 24.176
4T-339	1.3780 35.000	.8820 22.403	.03 .8					
4T-342	1.6250 41.275	.8820 22.403	.14 3.5					
4T-342A	1.6250 41.275	1.1802 29.977	.14 3.5					
4T-342S	1.6880 42.875	.8820 22.403	.14 3.5					
4T-344A	1.5748 40.000	.8820 22.403	.03 .8					
4T-355 SERIES								
4T-355	1.7500 44.450	.8540 21.692	.09 2.3	4T-352	3.5480 90.119	.8586 21.808	.09 2.3	.9055 23.000
4T-355X	1.7500 44.450	.8540 21.692	.14 3.5	4T-354A	3.3465 85.000	.6875 17.462	.05 1.3	.8125 20.638
4T-359A	1.8125 46.038	.8540 21.692	.14 3.5	4T-354X	3.3465 85.000	.6875 17.462	.06 1.5	.8125 20.638
4T-359S	1.8125 46.038	.8540 21.692	.09 2.3					
4T-365 SERIES								
4T-366	1.9685 50.000	.8750 22.225	.09 2.3	4T-362	3.5433 90.000	.6250 15.875	.08 2.0	.7874 20.000
4T-368	2.0000 50.800	.8750 22.225	.06 1.5	4T-362A	3.5000 88.900	.6501 16.513	.05 1.3	.8125 20.638
4T-368A	2.0000 50.800	.8750 22.225	.14 3.5	4T-363	3.5433 90.000	.7874 20.000	.03 .8	.7874 20.000
4T-368S	2.0312 51.592	.8750 22.225	.08 2.0					
4T-369A	1.8750 47.625	.8750 22.225	.14 3.5					
4T-369S	1.8750 47.625	.8750 22.225	.09 2.3					
4T-370A	2.0000 50.800	.8750 22.225	.20 5.0					
4T-385 SERIES								
4T-385	2.1654 55.000	.8640 21.946	.09 2.3	4T-382	3.8750 98.425	.7018 17.826	.03 .8	.8268 21.000
* 4T-385A	2.0000 50.800	.8640 21.946	.09 2.3	4T-382A	3.8125 96.838	.6250 15.875	.03 .8	.8268 21.000
4T-385X	2.1654 55.000	.8640 21.946	.14 3.5	4T-382S	3.8125 96.838	.7982 20.275	.09 2.3	1.0000 25.400
4T-386A	1.8750 47.625	.8640 21.946	.03 .8	4T-383A	3.9370 100.000	.7018 17.826	.08 2.0	.8268 21.000
4T-387	2.2500 57.150	.8640 21.946	.09 2.3					
4T-387A	2.2500 57.150	.8640 21.946	.14 3.5					
4T-387AS	2.2500 57.150	.8640 21.946	.20 5.0					
4T-387S	2.2500 57.150	.8640 21.946	.03 .8					
4Y-388A	2.2650 57.531	.8640 21.946	.14 3.5					
4T-389A	2.1250 53.975	.8640 21.946	.03 .8					
4T-395 SERIES								
4T-390	2.2500 57.150	.8660 21.996	.09 2.3	4T-393	4.3307 110.000	1.0630 27.000	.03 .8	1.0630 27.000
4T-395	2.5000 63.500	.8660 21.996	.14 3.5	4T-394A	4.3307 110.000	.7411 18.824	.05 1.3	.8661 22.000
4T-395A	2.6250 66.675	.8660 21.996	.03 .8	4T-394AS	4.3307 110.000	.7411 18.824	.13 3.3	.8661 22.000
4T-395S	2.6250 66.675	.8660 21.996	.14 3.5					
* 4T-396	1.9685 50.000	.8660 21.996	.03 .8					
4T-399A	2.6875 68.262	.8660 21.996	.09 2.3					
4T-399AS	2.6875 68.262	.8660 21.996	.20 5.0					

¹ These maximum fillet radii will be cleared by the cone or cup radii.

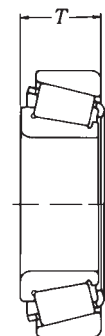
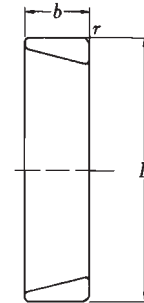
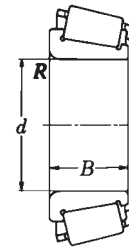
* 0.6 in. (1.5 mm) front radius

TAPERED ROLLER BEARINGS

Units: **INCHES**
Millimeters



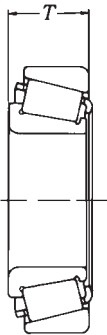
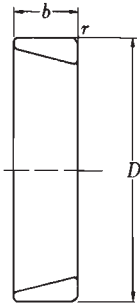
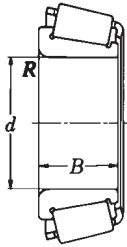
Cone Number	Bore	Cone Width	Max. shaft fillet radius ^①	Cup Number	O.D.	Cup Width	Max. housing fillet radius ^①	Overall Width
	<i>d</i>	<i>B</i>	<i>R</i>		<i>D</i>	<i>b</i>	<i>r</i>	<i>T</i>
4T-415 SERIES								
4T-418	1.5000 38.100	1.1450 29.083	.14 3.5	4T-412	3.2500 82.550	1.1875 30.162	.13 3.3	1.3750 34.925
4T-420	1.5748 40.000	1.1450 29.083	.14 3.5	4T-414	3.4843 88.500	.8750 22.225	.06 1.5	1.0625 26.988
4T-435 SERIES								
4T-438	1.7500 44.450	1.1772 29.901	.14 3.5	4T-432A	3.7500 95.250	.8750 22.225	.03 .8	1.0938 27.783
4T-443	1.2500 31.750	1.1772 29.901	.03 .8					
4T-455 SERIES								
4T-455	2.0000 50.800	1.1542 29.317	.03 .8	4T-453	4.2500 107.950	1.0630 27.000	.03 .8	1.0943 27.795
4T-461	1.6870 42.850	1.1542 29.317	.03 .8	4T-453A	4.2500 107.950	.8750 22.225	.03 .8	1.0938 27.783
4T-462	2.2500 57.150	1.1542 29.317	.09 2.3	4T-453X	4.1250 104.775	.9687 24.605	.13 3.3	1.1875 30.162
4T-467	1.8750 47.625	1.1542 29.317	.03 .8	4T-454	4.3307 110.000	1.0630 27.000	.08 2.0	1.0943 27.795
4T-469	2.2500 57.150	1.1542 29.317	.14 3.5					
4T-475 SERIES								
4T-480	2.6875 68.262	1.1420 29.007	.14 3.5	4T-472	4.7244 120.000	.9542 24.237	.08 2.0	1.1730 29.794
4T-482	2.7500 69.850	1.1420 29.007	.14 3.5	4T-472A	4.7244 120.000	.9230 23.444	.13 3.3	1.1418 29.002
4T-483	2.5000 63.500	1.1420 29.007	.14 3.5	4T-472X	4.8750 123.825	.9687 24.605	.13 3.3	1.1875 30.162
4T-484	2.7559 70.000	1.1420 29.007	.08 2.0					
4T-495 SERIES								
4T-495	3.2500 82.550	1.1720 29.769	.14 3.5					
4T-495A	3.0000 76.200	1.1720 29.769	.14 3.5	4T-492A	5.2500 133.350	.8750 22.225	.13 3.3	1.1875 30.162
4T-495AX	3.0000 76.200	1.1720 29.769	.25 6.4	4T-493	5.3750 136.525	.8750 22.225	.13 3.3	1.1875 30.162
4T-496	3.1875 80.962	1.1720 29.769	.14 3.5					
4T-497	3.3750 85.725	1.1720 29.769	.14 3.5					
4T-498	3.3125 84.138	1.1720 29.769	.14 3.5					
4T-525 SERIES								
4T-526	1.6250 41.275	1.4200 36.068	.14 3.5	4T-522	4.0000 101.600	1.0625 26.988	.13 3.3	1.3750 34.925
4T-527	1.7500 44.450	1.4200 36.068	.14 3.5					
4T-528	1.8750 47.625	1.4200 36.068	.14 3.5					
4T-529	2.0000 50.800	1.4200 36.068	.03 .8					
4T-535 SERIES								
4T-535	1.7500 44.450	1.4550 36.957	.14 3.5	4T-532A	4.3750 111.125	1.1875 30.162	.13 3.3	1.5000 38.100
4T-536	1.8750 47.625	1.4550 36.957	.14 3.5	4T-532X	4.2500 107.950	1.1250 28.575	.13 3.3	1.4375 36.512
4T-537	2.0000 50.800	1.4550 36.957	.14 3.5					
4T-539	2.1250 53.975	1.4550 36.957	.14 3.5					
4T-539A	2.1250 53.975	1.4550 36.957	.22 5.5					
4T-543	1.5748 40.000	1.4550 36.957	.14 3.5					



① These maximum fillet radii will be cleared by the cone or cup radii.



Units: **INCHES**
Millimeters



TAPERED ROLLER BEARINGS

Cone Number	Bore	Cone Width	Max. shaft fillet radius ^①	Cup Number	O.D.	Cup Width	Max. housing fillet radius ^①	Overall Width
	<i>d</i>	<i>B</i>	<i>R</i>		<i>D</i>	<i>b</i>	<i>r</i>	<i>T</i>
4T-555 SERIES								
4T-555S	2.2500 57.150	1.4440 36.678	.14 3.5	4T-552	4.8750 123.825	1.3125 33.338	.13 3.3	1.5000 38.100
4T-557A	2.3750 60.325	1.4440 36.678	.31 8.0	4T-552A	4.8750 123.825	1.1875 30.162	.13 3.3	1.5000 38.100
4T-557S	2.1250 53.975	1.4440 36.678	.14 3.5	4T-553A	4.9213 125.000	1.1875 30.162	.13 3.3	1.5000 38.100
4T-559	2.5000 63.500	1.4440 36.678	.14 3.5	4T-553X	4.8125 122.238	1.1875 30.162	.13 3.3	1.5000 38.100
4T-560	2.6250 66.675	1.4440 36.678	.14 3.5					
4T-565 SERIES								
4T-567	2.8750 73.025	1.4240 36.170	.14 3.5	4T-563	5.0000 127.000	1.1250 28.575	.13 3.3	1.4375 36.512
4T-575 SERIES								
4T-575	3.0000 76.200	1.4212 36.098	.14 3.5	4T-572	5.5115 139.992	1.1250 28.575	.13 3.3	1.4375 36.513
4T-575S	3.0000 76.200	1.4212 36.098	.27 6.8	4T-572X	5.5000 139.700	1.1250 28.575	.13 3.3	1.4375 36.513
4T-576	2.8750 73.025	1.4212 36.098	.14 3.5					
4T-577	2.9375 74.612	1.4212 36.098	.14 3.5					
4T-580	3.2500 82.550	1.4212 36.098	.14 3.5					
4T-581	3.1875 80.962	1.4212 36.098	.14 3.5					
4T-582	3.2500 82.550	1.4212 36.098	.27 6.8					
4T-595 SERIES								
4T-593	3.5000 88.900	1.4300 36.322	.14 3.5	4T-592	6.0000 152.400	1.3125 33.338	.13 3.3	1.5625 39.688
4T-593A	3.5000 88.900	1.4300 36.322	.25 6.4	4T-592A	6.0000 152.400	1.1875 30.162	.13 3.3	1.5625 39.688
4T-594	3.7500 95.250	1.4300 36.322	.14 3.5	4T-592XS	5.8125 147.638	1.0312 26.192	.13 3.3	1.4062 35.717
4T-594A	3.7500 95.250	1.4300 36.322	.20 5.0					
4T-595	3.2500 82.550	1.4300 36.322	.14 3.5					
4T-596	3.3750 85.723	1.4300 36.322	.14 3.5					
4T-598	3.6250 92.075	1.4300 36.322	.14 3.5					
4T-598A	3.6250 92.075	1.4300 36.322	.25 6.4					
4T-615 SERIES								
4T-620	1.5625 39.688	1.6250 41.275	.03 .8	4T-612	4.7500 120.650	1.2500 31.750	.13 3.3	1.6250 41.275
4T-621	2.1250 53.975	1.6250 41.275	.14 3.5					
4T-623	2.2500 57.150	1.6250 41.275	.14 3.5					
4T-635 SERIES								
4T-635	2.2500 57.150	1.6250 41.275	.14 3.5	4T-632	5.3750 136.525	1.2500 31.750	.13 3.3	1.6250 41.275
4T-639	2.5000 63.500	1.6250 41.275	.14 3.5	4T-633	5.1250 130.175	1.2500 31.750	.13 3.3	1.6250 41.275
4T-643	2.7500 69.850	1.6250 41.275	.14 3.5					
4T-645	2.8125 71.438	1.6250 41.275	.25 6.4					

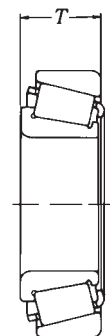
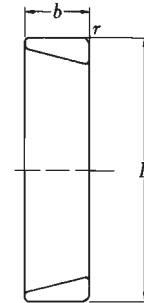
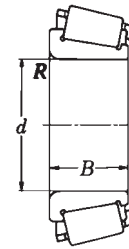
① These maximum fillet radii will be cleared by the cone or cup radii.

TAPERED ROLLER BEARINGS

Units: **INCHES**
Millimeters



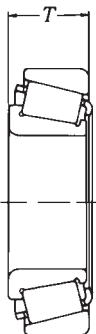
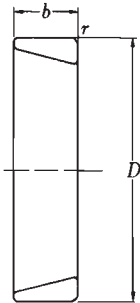
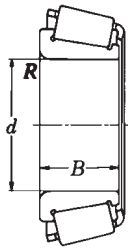
Cone Number	Bore	Cone Width	Max. shaft fillet radius ^①	Cup Number	O.D.	Cup Width	Max. housing fillet radius ^①	Overall Width
	<i>d</i>	<i>B</i>	<i>R</i>		<i>D</i>	<i>b</i>	<i>r</i>	<i>T</i>
4T-655 SERIES								
4T-659	3.0000 76.200	1.6250 41.275	.14 3.5	4T-652	6.0000 152.400	1.2500 31.750	.13 3.3	1.6250 41.275
4T-665	3.3750 85.725	1.6250 41.275	.14 3.5					
4T-665A	3.3750 85.725	1.6250 41.275	.25 6.4					
4T-662	3.1875 80.962	1.5000 38.100	.14 3.5	4T-652	6.0000 152.400	1.2500 31.750	.13 3.3	1.5000 38.100
				4T-653	5.7500 146.050	1.2500 31.750	.13 3.3	1.5000 38.100
4T-675 SERIES								
4T-681	3.6250 92.075	1.6250 41.275	.14 3.5	4T-672	6.6250 168.275	1.1875 30.162	.13 3.3	1.6250 41.275
4T-681A	3.6250 92.075	1.6250 41.275	.25 6.4					
4T-683	3.7500 95.250	1.6250 41.275	.14 3.5					
4T-683XA	3.7500 95.250	1.6250 41.275	.20 5.0					
4T-685	3.8750 98.425	1.6250 41.275	.14 3.5					
4T-687	4.0000 101.600	1.6250 41.275	.14 3.5					
4T-745 SERIES								
4T-745A	2.7500 69.850	1.8375 46.672	.14 3.5	4T-742	5.9090 150.089	1.4375 36.512	.13 3.3	1.7500 44.450
4T-748	3.1496 80.000	1.8375 46.672	.12 3.0	4T-743	5.9055 150.000	1.3780 35.000	.13 3.3	1.7502 44.455
4T-749	3.3475 85.026	1.8375 46.672	.14 3.5					
4T-749A	3.2500 82.550	1.8375 46.672	.14 3.5					
4T-749S	3.3475 85.026	1.8375 46.672	.20 5.0					
4T-750A	3.2500 82.550	1.8375 46.672	.27 6.8					
4T-755 SERIES								
4T-756A	3.1250 79.375	1.9000 48.260	.31 8.0	4T-752	6.3750 161.925	1.5000 38.100	.13 3.3	1.8750 47.625
4T-759	3.5000 88.900	1.9000 48.260	.14 3.5					
4T-760	3.5625 90.488	1.9000 48.260	.14 3.5					
4T-766	3.5000 88.900	1.9000 48.260	.28 7.0					
4T-795 SERIES								
4T-797	5.1181 130.000	1.8750 47.625	.14 3.5	4T-792	8.1250 206.375	1.3750 34.925	.13 3.3	1.8750 47.625
4T-855 SERIES								
4T-855	3.5000 88.900	2.2650 57.531	.31 8.0	4T-854	7.5000 190.500	1.7500 44.450	.13 3.3	2.2500 57.150
4T-857	3.6250 92.075	2.2650 57.531	.31 8.0					
4T-861	4.0000 101.600	2.2650 57.531	.31 8.0					
4T-864	3.7500 95.250	2.2650 57.531	.31 8.0					
4T-866	3.8750 98.425	2.2650 57.531	.14 3.5					
4T-869	3.4375 87.312	2.2650 57.531	.31 8.0					
4T-935 SERIES								
4T-936	4.2500 107.950	2.6250 66.675	.31 8.0	4T-932	8.3750 212.725	2.1250 53.975	.13 3.3	2.6250 66.675
4T-938	4.5000 114.300	2.6250 66.675	.28 7.0					



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Millimeters



TAPERED ROLLER BEARINGS

Cone Number	Bore	Cone Width	Max. shaft fillet radius ¹	Cup Number	O.D.	Cup Width	Max. housing fillet radius ¹	Overall Width
	<i>d</i>	<i>B</i>	<i>R</i>		<i>D</i>	<i>b</i>	<i>r</i>	<i>T</i>
4T-1300 SERIES								
4T-1380	.8750 22.225	.7940 20.168	.06 1.5	4T-1328	2.0625 52.388	.5625 14.288	.06 1.5	.7625 19.368
4T-1700 SERIES								
4T-1755	.8750 22.225	.7810 19.837	.05 1.3	4T-1729	2.2400 56.896	.6250 15.875	.05 1.3	.7625 19.368
4T-1779	.9375 23.812	.7810 19.837	.03 .8	4T-1729X	2.2400 56.896	.6250 15.875	.06 1.5	.7625 19.368
4T-1780	1.0000 25.400	.7810 19.837	.03 .8					
4T-1900 SERIES								
4T-1986	1.0000 25.400	.7620 19.355	.05 1.3	4T-1922	2.2500 57.150	.6250 15.875	.06 1.5	.7813 19.845
4T-1988	1.1250 28.575	.7620 19.355	.14 3.5					
4T-2500 SERIES								
4T-2580	1.2500 31.750	.9983 25.357	.03 .8	4T-2523	2.7500 69.850	.7500 19.050	.05 1.3	.9375 23.812
4T-2585	1.3125 33.338	.9983 25.357	.14 3.5					
4T-2600 SERIES								
4T-2690	1.1562 29.367	1.0013 25.433	.14 3.5	4T-2631	2.6150 66.421	.7500 19.050	.05 1.3	.9375 23.812
4T-2700 SERIES								
4T-2776	1.5000 38.100	1.0100 25.654	.17 4.3	4T-2720	3.0000 76.200	.7500 19.050	.13 3.3	.9375 23.812
4T-2777	1.5000 38.100	1.0100 25.654	.22 5.5	4T-2729	3.0000 76.200	.7500 19.050	.03 .8	.9375 23.812
4T-2780	1.4365 36.487	1.0100 25.654	.06 1.5	4T-2735X	2.8750 73.025	.7500 19.050	.03 .8	.9375 23.812
4T-2788	1.5000 38.100	1.0100 25.654	.14 3.5					
4T-2789	1.5625 39.688	1.0100 25.654	.14 3.5					
4T-2790	1.3125 33.338	1.0100 25.654	.06 1.5					
4T-2793	1.3750 34.925	1.0100 25.654	.03 .8					
4T-2794	1.4365 36.487	1.0100 25.654	.14 3.5					
4T-2796	1.3750 34.925	1.0100 25.654	.14 3.5					
4T-2900 SERIES								
4T-2984	1.8125 46.038	1.0082 25.608	.14 3.5	4T-2924	3.3464 85.000	.8125 20.637	.05 1.3	1.0000 25.400
4T-3100 SERIES								
4T-3193	1.2500 31.750	1.1810 29.997	.14 3.5	4T-3120	2.8593 72.626	.9375 23.812	.13 3.3	1.1875 30.162
4T-3196	1.3125 33.338	1.1810 29.997	.14 3.5					
4T-3300 SERIES								
4T-3379	1.3750 34.925	1.1965 30.391	.14 3.5	4T-3320	3.1562 80.167	.9375 23.812	.13 3.3	1.1563 29.370
4T-3384	1.6250 41.275	1.1965 30.391	.03 .8	4T-3325	*3.1496 80.000	.9375 23.812	.13 3.3	1.1563 29.370
4T-3386	1.5625 39.688	1.1965 30.391	.03 .8					
4T-3400 SERIES								
4T-3478	1.3750 34.925	1.1721 29.771	.14 3.5	4T-3420	3.1250 79.375	.9375 23.812	.13 3.3	1.1563 29.370
4T-3479	1.4375 36.512	1.1721 29.771	.03 .8					
4T-3482	1.3750 34.925	1.1721 29.771	.03 .8					
4T-3490	1.5000 38.100	1.1721 29.771	.14 3.5					

¹ These maximum fillet radii will be cleared by the cone or cup radii.

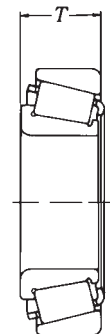
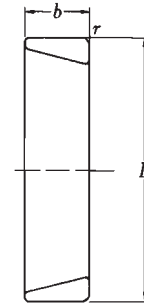
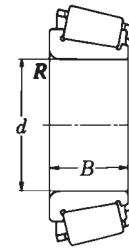
* Tolerance +.0000 to -.0010 in (+0 to -.025 mm)

TAPERED ROLLER BEARINGS

Units: **INCHES**
Millimeters



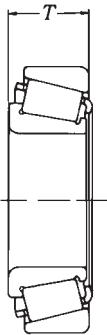
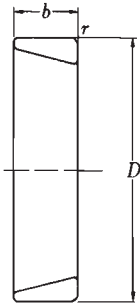
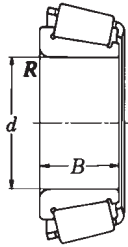
Cone Number	Bore	Cone Width	Max. shaft fillet radius ¹	Cup Number	O.D.	Cup Width	Max. housing fillet radius ¹	Overall Width
	<i>d</i>	<i>B</i>	<i>R</i>		<i>D</i>	<i>b</i>	<i>r</i>	<i>T</i>
4T-3500 SERIES								
4T-3578	1.7500 44.450	1.2160 30.886	.14 3.5	4T-3520	3.3125 84.138	.9375 23.812	.13 3.3	1.1875 30.162
4T-3578A	1.7500 44.450	1.2160 30.886	.22 5.5	4T-3525	3.4375 87.312	.9375 23.812	.13 3.3	1.1875 30.162
4T-3580	1.5000 38.100	1.2160 30.886	.06 1.5					
4T-3585	1.6250 41.275	1.2160 30.886	.06 1.5					
4T-3586	1.7810 45.237	1.2160 30.886	.14 3.5					
4T-3700 SERIES								
4T-3767	2.0625 52.388	1.1930 30.302	.09 2.3	4T-3720	3.6718 93.264	.9375 23.812	.13 3.3	1.1875 30.162
4T-3775	2.0000 50.800	1.1930 30.302	.03 .8	4T-3730	3.6718 93.264	.9375 23.812	.03 .8	1.1875 30.162
4T-3776	1.7710 44.983	1.1930 30.302	.14 3.5					
4T-3778	1.8750 47.625	1.1930 30.302	.25 6.4					
4T-3779	1.8750 47.625	1.1930 30.302	.14 3.5					
4T-3780	2.0000 50.800	1.1930 30.302	.14 3.5					
4T-3781	1.9375 49.212	1.1930 30.302	.14 3.5					
4T-3782	1.7500 44.450	1.1930 30.302	.14 3.5					
4T-3783	1.7500 44.450	1.1930 30.302	.25 6.4					
4T-3784	2.0000 50.800	1.1930 30.302	.25 6.4					
4T-3795	2.0000 50.800	1.1930 30.302	.14 3.5					
4T-3800 SERIES								
4T-3872	1.3750 34.925	1.1875 30.162	.14 3.5	4T-3820	3.3750 85.725	.9375 23.812	.13 3.3	1.1875 30.162
4T-3872A	1.3750 34.925	1.1875 30.162	.03 .8					
4T-3877	1.6250 41.275	1.1875 30.162	.14 3.5					
4T-3880	1.6250 41.275	1.1875 30.162	.03 .8					
4T-3900 SERIES								
4T-3979	2.2500 57.150	1.1830 30.048	.14 3.5	4T-3920	4.4375 112.712	.9375 23.812	.13 3.3	1.1875 30.162
4T-3982	2.5000 63.500	1.1830 30.048	.14 3.5	4T-3925	4.4375 112.712	.9375 23.812	.03 .8	1.1875 30.162
4T-3984	2.6250 66.675	1.1830 30.048	.14 3.5					
4T-3994	2.6250 66.675	1.1830 30.048	.22 5.5					
4T-4300 SERIES								
4T-4388	1.6250 41.275	1.5900 40.386	.14 3.5	4T-4335	3.5625 90.488	1.3125 33.338	.13 3.3	1.5625 39.688
4T-5300 SERIES								
4T-5356	1.7500 44.450	1.7510 44.475	.05 1.3	4T-5335	4.0625 103.188	1.4375 36.512	.13 3.3	1.7188 43.658
4T-5358	1.8750 47.625	1.7510 44.475	.05 1.3					
4T-5361	1.8750 47.625	1.7510 44.475	.14 3.5					
4T-5395	1.9375 49.212	1.7510 44.475	.14 3.5					



¹ These maximum fillet radii will be cleared by the cone or cup radii.



Units: **INCHES**
Millimeters



TAPERED ROLLER BEARINGS													
Cone Number	Bore	Cone Width	Max. shaft fillet radius ^①	Cup Number	O.D.	Cup Width	Max. housing fillet radius ^①	Overall Width					
	<i>d</i>	<i>B</i>	<i>R</i>		<i>D</i>	<i>b</i>	<i>r</i>	<i>T</i>					
4T-5500 SERIES													
4T-5562	1.9375 49.212	1.7230 43.764	.05 1.3	4T-5535	4.8125 122.238	1.4375 36.512	.13 3.3	1.7188 43.658					
4T-5565	2.0000 50.800	1.7230 43.764	.05 1.3										
4T-5566	2.1875 55.562	1.7230 43.764	.05 1.3										
4T-5578	2.1250 53.975	1.7230 43.764	.14 3.5										
4T-5582	2.3750 60.325	1.7230 43.764	.03 .8										
4T-5583	2.3750 60.325	1.7230 43.764	.14 3.5										
4T-5584	2.5000 63.500	1.7230 43.764	.14 3.5										
4T-5595	2.5938 65.883	1.7230 43.764	.14 3.5										
4T-5700 SERIES													
4T-5760	3.0000 76.200	1.8150 46.100	.14 3.5						4T-5735	5.3438 135.733	1.3750 34.925	.13 3.3	1.7500 44.450
4T-5795	3.0625 77.788	1.8150 46.100	.14 3.5										
4T-6300 SERIES													
4T-6361	2.3622 60.000	2.2050 56.007	.12 3.0	4T-6320	5.3447 135.755	1.7500 44.450	.13 3.3	2.1250 53.975					
4T-6376	2.3750 60.325	2.2050 56.007	.14 3.5										
4T-6379	2.5625 65.088	2.2050 56.007	.14 3.5										
4T-6381	*2.1649 55.000	2.2050 56.007	.14 3.5										
4T-6382	2.5000 63.500	2.2050 56.007	.17 4.3										
4T-6386	2.6250 66.675	2.2050 56.007	.17 4.3										
4T-6389	2.6250 66.675	2.2050 56.007	.25 6.4										
4T-6400 SERIES													
4T-6461A	3.0000 76.200	2.1350 54.229	.38 9.7						4T-6420	5.8750 147.225	1.7500 44.450	.13 3.3	2.1250 53.975
4T-6500 SERIES													
4T-6559	3.2500 82.550	2.1693 55.100	.14 3.5	4T-6535	6.3750 161.925	1.6875 42.862	.13 3.3	2.1250 53.975					
4T-6576	3.0000 76.200	2.1693 55.100	.14 3.5										
4T-6580	3.5000 88.900	2.1693 55.100	.14 3.5										
4T-02400 SERIES													
4T-02474	1.1250 28.575	.8750 22.225	.03 .8	4T-02420	2.6875 68.262	.6875 17.462	.06 1.5	.8750 22.225					
4T-02475	1.2500 31.750	.8750 22.225	.14 3.5										
4T-02800 SERIES													
4T-02872	1.1250 28.575	.8750 22.225	.03 .8	4T-02820	2.8750 73.025	.6875 17.462	.13 3.3	.8750 22.225					
4T-05000 SERIES													
4T-05062	.6250 15.875	.5662 14.381	.06 1.5	4T-05185	1.8504 47.000	.4375 11.112	.05 1.3	.5662 14.381					
4T-05079	*.7874 20.000	.5662 14.381	.06 1.5										
4T-07000 SERIES													
4T-07079	.7874 20.000	.5614 14.260	.06 1.5	4T-07196	1.9687 50.005	.3750 9.525	.04 1.0	.5313 13.495					
4T-07087	.8750 22.225	.5614 14.260	.05 1.3	4T-07204	2.0470 51.994	.5000 12.700	.05 1.3	.5910 15.011					
4T-07093	.9375 23.812	.5614 14.260	.06 1.5	4T-07210X	2.0000 50.800	.5000 12.700	.06 1.5	.5910 15.011					
4T-07100	1.0000 25.400	.5614 14.260	.04 1.0										

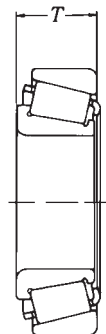
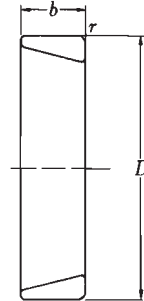
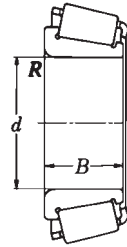
① These maximum fillet radii will be cleared by the cone or cup radii.
* Tolerance +.0000 to -.0005 in. (+0 to -.013 mm)

TAPERED ROLLER BEARINGS

Units: INCHES
Millimeters



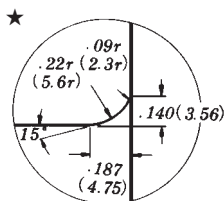
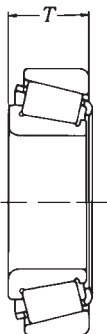
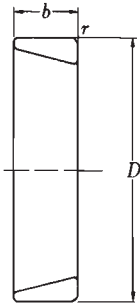
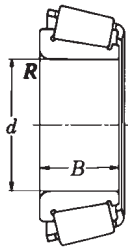
Cone Number	Bore	Cone Width	Max. shaft fillet radius	Cup Number	O.D.	Cup Width	Max. housing fillet radius	Overall Width
	<i>d</i>	<i>B</i>	① <i>R</i>		<i>D</i>	<i>b</i>	① <i>r</i>	<i>T</i>
4T-09000 SERIES								
4T-09067	.7500	.7500	.05	4T-09194	1.9380	.6875	.14	.8350
	19.050	19.050	1.3		49.225	17.462	3.5	21.209
				0T-09195	1.9380	.5625	.05	.7100
					49.225	14.288	1.3	18.034
				4T-09196	1.9380	.6875	.06	.8350
					49.225	17.462	1.5	21.209
4T-09074	.7500	.8480	#	4T-09194	1.9380	.6875	.14	.9063
	19.050	21.539	#		49.225	17.462	3.5	23.020
4T-09078	.7500	.8480	.05	4T-09195	1.9380	.5625	.05	.7813
	19.050	21.539	1.3		49.225	14.288	1.3	19.845
				4T-09196	1.9380	.6875	.06	.9063
					49.225	17.462	1.5	23.020
4T-11000 SERIES								
4T-11162	1.6250	.6844	.06	4T-11300	3.0000	.5625	.06	.7090
	41.275	17.384	1.5		76.200	14.288	1.5	18.009
4T-11500 SERIES								
4T-11590	.6250	.5625	.06	4T-11520	1.6875	.3750	.06	.5625
	15.875	14.288	1.5		42.862	9.525	1.5	14.288
4T-LM11700 SERIES								
* 4T-LM11749	.6875	.5750	.05	■ 4T-LM11710	1.5700	.4200	.05	.5450
	17.462	14.605	1.3		39.878	10.668	1.3	13.843
4T-LM11900 SERIES								
* 4T-LM11949	.7500	.6550	.05	■ 4T-LM11910	1.7810	.4750	.05	.6100
	19.050	16.637	1.3		45.237	12.065	1.3	15.494
4T-12000 SERIES								
4T-12175	1.7500	.6750	.06	4T-12303	3.0312	.4688	.06	.6875
	44.450	17.145	1.5		76.992	11.908	1.5	17.462
4T-12500 SERIES								
4T-12580	.8125	.7813	.06	4T-12520	1.9380	.6250	.06	.7813
	20.638	19.845	1.5		49.225	15.875	1.5	19.845
4T-M12600 SERIES								
4T-M12649	.8437	.7200	.05	■ 4T-M12610	1.9687	.5500	.05	.6900
	21.430	18.288	1.3		50.005	13.970	1.3	17.526
4T-LM112700 SERIES								
* 4T-LM12749	▲.8661	.6550	.05	■ 4T-LM12710	1.7810	.4750	.05	.6100
	22.000	16.637	1.3		45.237	12.065	1.3	15.494
				■ 4T-LM12711	◆1.8110	.4750	.05	.6100
					46.000	12.065	1.3	15.494
4T-13600 SERIES								
4T-13685	1.5000	.7500	.14	4T-13620	2.7170	.5938	.03	.7500
	38.100	19.050	3.5		69.012	15.083	.8	19.050
4T-13686	1.5000	1.0313	.06	4T-13621	2.7170	.5938	.09	.7500
	38.100	26.195	1.5		69.012	15.083	2.3	19.050
4T-13687	1.5000	.7500	.08					
	38.100	19.050	2.0					
4T-14000 SERIES								
4T-14116	1.1900	.7710	.03	4T-14274	2.7170	.6250	.13	.7813
	30.226	19.583	.8		69.012	15.875	3.3	19.845
● 4T-14117A	1.1811	.7710	.14	4T-14276	2.7170	.6250	.05	.7813
	30.000	19.583	3.5		69.012	15.875	1.3	19.845
● 4T-14118	1.1811	.7560	.03	4T-14282	2.8345	.5918	.06	.7481
	30.000	19.202	.8		71.996	15.032	1.5	19.002
4T-14124	1.2500	.7710	.03	4T-14283	2.8380	.7250	.09	.8813
	31.750	19.583	.8		72.085	18.415	2.3	22.385
4T-14125A	1.2500	.7710	.14					
	31.750	19.583	3.5					
4T-14131	1.3125	.7710	.03					
	33.338	19.583	.8					
4T-14137A	1.3750	.7710	.06					
	34.925	19.583	1.5					
4T-14138A	1.3750	.7710	.14					
	34.925	19.583	3.5					



① These maximum fillet radii will be cleared by the cone or cup radii. ◆ Tolerance +.0000 to -.0010 in. (-0 to -.025 mm)
 * Cone Bore Tolerance .0008 to -.0000 in. (+0.020 to 0 mm) ▲ Tolerance +.0000 to -.0005 in. (+0 to -.013 mm)
 ■ Overall Bearing Width Tolerance +.0140 to -.0000 in. (+.356 to -0 mm) ● .08 in. (2.0 mm) x 45 degree front face chamfer
 # .06 in. (1.5 mm) x 45 degree chamfer



Units: **INCHES**
Millimeters



TAPERED ROLLER BEARINGS								
Cone Number	Bore	Cone Width	Max. shaft fillet radius ^①	Cup Number	O.D.	Cup Width	Max. housing fillet radius ^①	Overall Width
	<i>d</i>	<i>B</i>	<i>R</i>		<i>D</i>	<i>b</i>	<i>r</i>	<i>T</i>
4T-14000 SERIES (Continued)								
# 4T-14136A	1.3750 34.925	1.0520 26.721	.03 .8	4T-14274	2.7170 69.012	.6250 15.875	.13 3.3	1.0623 26.982
				4T-14276	2.7170 69.012	.6250 15.875	.05 1.3	1.0623 26.982
				4T-14282	2.8345 71.996	.5918 15.032	.06 1.5	1.0291 26.139
				4T-14283	2.8380	.7250	.09	1.1623
4T-15000 SERIES								
4T-15100	1.0000 25.400	.8125 20.638	.14 3.5	4T-15243	2.4375 61.912	.5625 14.288	.08 2.0	.7500 19.050
4T-15101	1.0000 25.400	.8125 20.638	.14 3.5	4T-15244	2.4409 62.000	.6250 15.875	.05 1.3	.8125 20.638
4T-15103S	1.0300 26.162	.7850 19.939	.03 .8	4T-15245	2.4409 62.000	.5625 14.288	.05 1.3	.7500 19.050
4T-15106	1.0625 26.988	.8125 20.638	.03 .8	4T-15250	2.5000 63.500	.6250 15.875	.05 1.3	.8125 20.638
4T-15113	1.1250 28.575	.8125 20.638	.03 .8	4T-15250X	2.5000 63.500	.6250 15.875	.06 1.5	.8125 20.638
4T-15116	1.1855 30.112	.8125 20.638	.03 .8					
4T-15117	*1.1811 30.000	.8125 20.638	.05 1.3					
4T-15118	1.1895 30.213	.8125 20.638	.14 3.5					
4T-15119	1.1895 30.213	.8125 20.638	.06 1.5					
4T-15120	1.1895 30.213	.8125 20.638	.03 .8					
4T-15125	1.2500 31.750	.8125 20.638	.14 3.5					
4T-15126	1.2500 31.750	.8125 20.638	.03 .8					
4T-15123	1.2500 31.750	.7500 19.050	★	4T-15243	2.4375 61.912	.5625 14.288	.08 2.0	.7150 18.161
				4T-15244	2.4409 62.000	.6250 15.875	.05 1.3	.7775 19.749
				4T-15245	2.4409 62.000	.5625 14.288	.05 1.3	.7150 18.161
				4T-15250	2.5000 63.500	.6250 15.875	.05 1.3	.7775 19.749
				4T-15250X	2.5000 63.500	.6250 15.875	.06 1.5	.7775 19.749
4T-15500 SERIES								
4T-15578	1.0000 25.400	.6875 17.462	.05 1.3	4T-15520	2.2500 57.150	.5313 13.495	.06 1.5	.6875 17.462
4T-15580	1.0625 26.988	.6875 17.462	.14 3.5					
4T-15590	1.1250 28.575	.6875 17.462	.14 3.5					
4T-16000 SERIES								
4T-16150	1.5000 38.100	.8125 20.638	.14 3.5	4T-16282	2.8346 72.000	.5605 14.237	.06 1.5	.7480 19.000
				4T-16284	2.8440 72.238	.6250 15.875	.05 1.3	.8125 20.638
4T-17000 SERIES								
4T-17118	**1.1811 30.000	.6522 16.566	.06 1.5	4T-17244	2.4409 62.000	.5625 14.288	.06 1.5	.6300 16.002
4T-17500 SERIES								
4T-17580	.6250 15.875	.6563 16.670	.06 1.5	4T-17520	1.6875 42.862	.5313 13.495	.06 1.5	.6563 16.670
4T-17800 SERIES								
4T-17887	1.7807 45.230	.8125 20.638	.08 2.0	4T-17831	3.1490 79.985	.5937 15.080	.05 1.3	.7812 19.842
4T-18500 SERIES								
4T-18590	1.6250 41.275	.6875 17.462	.14 3.5	4T-18520	2.8750 73.025	.5000 12.700	.06 1.5	.6562 16.667

① These maximum fillet radii will be cleared by the cone or cup radii.

* Tolerance .0000 to -.0005 in. (+0 to -.013 mm)

** Tolerance .0008 to .0000 in. (+.020 to 0 mm)

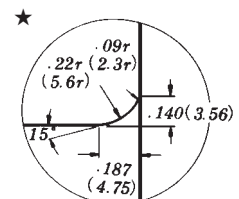
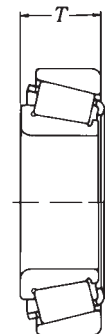
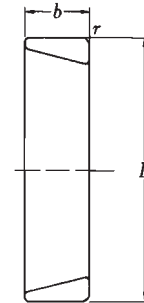
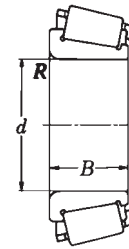
Extended shoulder on back face

TAPERED ROLLER BEARINGS

Units: INCHES
Millimeters



Cone Number	Bore	Cone Width	Max. shaft fillet radius ^①	Cup Number	O.D.	Cup Width	Max. housing fillet radius ^①	Overall Width
	<i>d</i>	<i>B</i>	<i>R</i>		<i>D</i>	<i>b</i>	<i>r</i>	<i>T</i>
4T-18600 SERIES								
4T-18685	1.7500 44.450	.6875 17.462	.11 2.8	4T-18620	3.1250 79.375	.5313 13.495	.06 1.5	.6875 17.462
4T-18690	1.8125 46.038	.6875 17.462	.11 2.8					
4T-18700 SERIES								
4T-18780	1.8125 46.038	.6875 17.462	.09 2.3	4T-18720	3.3465 85.000	.5313 13.495	.06 1.5	.6875 17.462
4T-18790	2.0000 50.800	.6875 17.462	.14 3.5					
4T-19000 SERIES								
4T-19150	1.5000 38.100	.6504 16.520	.06 1.5	4T-19268	2.6875 68.262	.4688 11.908	.06 1.5	.6250 15.875
				4T-19268X	2.6880 68.275	.6312 16.032	.06 1.5	.7874 20.000
				4T-19283X	2.8346 72.000	.5625 14.288	.08 2.0	.6700 17.018
4T-21000 SERIES								
4T-21075	.7500 19.050	.8598 21.839	.06 1.5	4T-21212	2.1250 53.975	.6250 15.875	.09 2.3	.8750 22.225
4T-22700 SERIES								
4T-22780	1.6875 42.862	1.0625 26.988	.14 3.5	4T-22720	3.2500 82.550	.8125 20.638	.13 3.3	1.0313 26.195
4T-23000 SERIES								
4T-23100	1.0000 25.400	.8450 21.463	.06 1.5	4T-23250X	2.5000 63.500	.5780 14.681	.09 2.3	.8540 21.692
4T-24700 SERIES								
4T-24780	1.6250 41.275	.9063 23.020	.14 3.5	4T-24720	3.0000 76.200	.6875 17.462	.03 .8	.8750 22.225
				4T-24721	3.0000 76.200	.8125 20.638	.09 2.3	1.0000 25.400
				4T-24722	3.0000 76.200	.6875 17.462	.13 3.3	.8750 22.225
4T-25500 SERIES								
4T-25577	1.6880 42.875	1.0000 25.400	.13 3.5	4T-25519	3.2500 82.550	.7500 19.050	.08 2.0	.9375 23.812
*4T-25578	1.6875 42.862	1.0000 25.400	.09 2.3	4T-25520	3.2650 82.931	.7500 19.050	.03 .8	.9375 23.812
4T-25580	1.7500 44.450	1.0000 25.400	.14 3.5	4T-25521	3.2700 83.058	.7500 19.050	.13 3.3	.9375 23.812
4T-25584	1.7710 44.983	1.0000 25.400	.06 1.5	4T-25522	3.2700 83.058	.7525 19.114	.08 2.0	.9400 23.876
4T-25590	1.7960 45.618	1.0000 25.400	.14 3.5	4T-25523	3.2650 82.931	.8750 22.225	.09 2.3	1.0625 26.988
				4T-25526	3.3465 85.000	.7500 19.050	.09 2.3	.9375 23.812
4T-25583	1.7500 44.450	1.4125 35.878	★	4T-25519	3.2500 82.550	.7500 19.050	.08 2.0	1.3500 34.290
				4T-25520	3.2650 82.931	.7500 19.050	.03 .8	1.3500 34.290
				4T-25521	3.2700 83.058	.7500 19.050	.13 3.3	1.3500 34.290
				4T-25522	3.2700 83.058	.7525 19.114	.08 2.0	1.3525 34.354
				4T-25523	3.2650 82.931	.8750 22.225	.09 2.3	1.4750 37.465
				4T-25526	3.3465 85.000	.7500 19.050	.09 2.3	1.3500 34.290
4T-25800 SERIES								
4T-25877	1.3750 34.925	.9688 24.608	.06 1.5	4T-25820	2.8750 73.025	.7500 19.050	.09 2.3	.9375 23.812
4T-25878	1.3750 34.925	.9688 24.608	.14 3.5	4T-25821	2.8750 73.025	.7500 19.050	.03 .8	.9375 23.812
4T-25880	1.4365 36.487	.9688 24.608	.06 1.5					

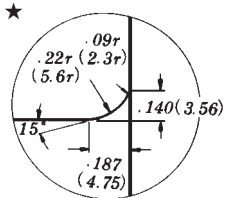
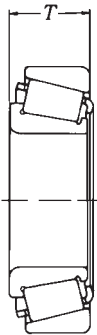
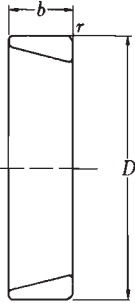
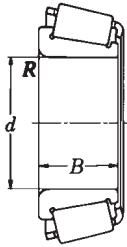


① These maximum fillet radii will be cleared by the cone or cup radii.

* Large rib OD ground .03 in. (0.8 mm) x 45 front face chamfer.



Units: **INCHES**
Millimeters



TAPERED ROLLER BEARINGS

Cone Number	Bore	Cone Width	Max. shaft fillet radius ^①	Cup Number	O.D.	Cup Width	Max. housing fillet radius ^①	Overall Width
	<i>d</i>	<i>B</i>	<i>R</i>		<i>D</i>	<i>b</i>	<i>r</i>	<i>T</i>
4T-26800 SERIES								
4T-26878	1.5000 38.100	1.0000 25.400	.03 .8	4T-26820	3.1562 80.167	.8125 20.638	.13 3.3	1.0000 25.400
4T-26881	1.5625 39.688	1.0000 25.400	.14 3.5	4T-26822	3.1250 79.375	.7500 19.050	.03 .8	.9375 23.812
4T-26882	1.6250 41.275	1.0000 25.400	.14 3.5	4T-26823	3.0000 76.200	.8125 20.638	.06 1.5	1.0000 25.400
4T-26883	1.3780 35.000	1.0000 25.400	.03 .8	4T-26830	3.1562 80.167	.8125 20.638	.03 .8	1.0000 25.400
4T-26884	1.6880 42.875	1.0000 25.400	.14 3.5					
4T-26886	1.6880 42.875	1.0000 25.400	.06 1.5					
4T-27800 SERIES								
4T-27881	1.5000 38.100	.9330 23.698	.14 3.5	4T-27820	3.1510 80.035	.7288 18.512	.06 1.5	.9688 24.608
4T-28000 SERIES								
4T-28150	1.5000 38.100	.8244 20.940	.06 1.5	4T-28300	3.0000 76.200	.6105 15.507	.05 1.3	.8125 20.638
4T-28500 SERIES								
4T-28580	2.0000 50.800	1.0000 25.400	.14 3.5	4T-28520	3.5425 89.980	.7869 19.987	.09 2.3	.9744 24.750
4T-28584	2.0625 52.388	1.0000 25.400	.14 3.5	4T-28521	3.6250 92.075	.7813 19.845	.03 .8	.9688 24.608
4T-28600 SERIES								
4T-28678	2.0000 50.800	.9688 24.608	.14 3.5	4T-28621	3.8125 96.838	.7656 19.446	.03 .8	.9688 24.608
4T-28682	2.2500 57.150	.9688 24.608	.14 3.5	4T-28622	3.8437 97.630	.7656 19.446	.03 .8	.9688 24.608
4T-28900 SERIES								
4T-28980	2.3613 59.977	1.0000 25.400	.14 3.5	4T-28920	4.0000 101.600	.7813 19.845	.13 3.3	1.0000 25.400
4T-28985	2.3750 60.325	1.0000 25.400	.14 3.5	4T-28921	3.9370 100.000	.7813 19.845	.13 3.3	1.0000 25.400
4T-29500 SERIES								
4T-29585	2.5000 63.500	1.0000 25.400	.14 3.5	4T-29520	4.2500 107.950	.7500 19.050	.13 3.3	1.0000 25.400
4T-29600 SERIES								
4T-29675	2.7500 69.850	1.0000 25.400	.06 1.5	4T-28620	4.4375 112.712	.7500 19.050	.13 3.3	1.0000 25.400
4T-29685	2.8750 73.025	1.0000 25.400	.14 3.5	4T-29630	4.7500 120.650	.7500 19.050	.13 3.3	1.0000 25.400
4T-LM29700 SERIES								
4T-LM29748	1.5000 38.100	.7200 18.288	★	4T-LM29710	2.5625 65.088	.5500 13.970	.05 1.3	.7100 18.034
4T-31500 SERIES								
4T-31593	1.3750 34.925	1.1250 28.575	.14 3.5	4T-31520	3.0000 76.200	.9375 23.812	.13 3.3	1.1563 29.370
4T-31594	1.3750 34.925	1.1250 28.575	.06 1.5					
4T-31597	1.4375 36.512	1.1250 28.575	.14 3.5					
4T-33000 SERIES								
4T-33225	2.2500 57.150	1.1875 30.162	.14 3.5	4T-33462	4.6250 117.475	.9375 23.812	.13 3.3	1.1875 30.162
4T-33262	2.6250 66.675	1.1875 30.162	.14 3.5	4T-33472	4.7244 120.000	.9230 23.444	.03 .8	1.1730 29.764
4T-33275	2.7500 69.850	1.1875 30.162	.14 3.5					
4T-33281	2.8125 71.438	1.1875 30.162	.14 3.5					
4T-33287	2.8750 73.025	1.1875 30.162	.14 3.5					

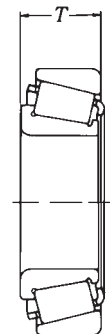
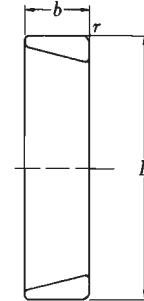
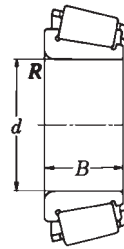
① These maximum fillet radii will be cleared by the cone or cup radii.

TAPERED ROLLER BEARINGS

Units: **INCHES**
Millimeters



Cone Number	Bore	Cone Width	Max. shaft fillet radius ^①	Cup Number	O.D.	Cup Width	Max. housing fillet radius ^①	Overall Width
	<i>d</i>	<i>B</i>	<i>R</i>		<i>D</i>	<i>b</i>	<i>r</i>	<i>T</i>
4T-33800 SERIES								
4T-33891	2.0625 52.388	1.1250 28.575	.14 3.5	4T-33821	3.7500 95.250	.8750 22.225	.09 2.3	1.0938 27.783
4T-34000 SERIES								
4T-34306	3.0625 77.788	.9060 23.012	.14 3.5	4T-34478	4.7812 121.442	.6875 17.462	.08 2.0	.9688 24.608
				4T-34492A	4.9233 125.052	.6457 16.400	.08 2.0	.9343 23.731
4T-39500 SERIES								
4T-39581	2.2500 57.150	1.1875 30.162	.31 8.0	4T-39520	4.4375 112.712	.9375 23.812	.13 3.3	1.1875 30.162
4T-39585	2.5000 63.500	1.1875 30.162	.14 3.5					
4T-39590	2.6250 66.675	1.1875 30.162	.14 3.5					
4T-41000 SERIES								
4T-41125	1.1250 28.575	.9550 24.257	.19 4.8	4T-41286	2.8593 72.626	.6875 17.462	.06 1.5	.9688 24.608
4T-42000 SERIES								
4T-42346	3.4630 87.960	1.1406 28.971	.12 3.0	4T-42584	5.8437 148.430	.8438 21.433	.12 3.0	1.1250 28.575
4T-42350	3.5000 88.900	1.1406 28.971	.12 3.0	4T-42587	5.8750 149.225	.9688 24.608	.13 3.3	1.2500 31.750
4T-42368	3.6875 93.662	1.1406 28.971	.12 3.0					
4T-42375	3.7500 95.250	1.1406 28.971	.12 3.0					
4T-42381	3.8125 96.838	1.1406 28.971	.14 3.5					
4T-42600 SERIES								
4T-42687	3.0000 76.200	1.2205 31.000	.14 3.5	4T-42620	5.0000 127.000	.8750 22.225	.13 3.3	1.1875 30.162
4T-43000 SERIES								
4T-43131	1.3125 33.338	.9478 24.074	.14 3.5	4T-43300	3.0000 76.200	.6563 16.670	* *	.9688 24.608
4T-44000 SERIES								
4T-44150	1.5000 38.100	.9330 23.698	.09 2.3	4T-44348	3.4834 88.500	.6875 17.462	.06 1.5	1.0000 25.400
4T-L44600 SERIES								
* 4T-L44640	.9375 23.813	.5800 14.732	.06 1.5	‡ 4T-L44610	1.9800 50.292	.4200 10.668	.05 1.3	.5600 14.224
* 4T-L44643	1.0000 25.400	.5800 14.732	.05 1.3					
* 4T-L44649	1.0625 26.988	.5800 14.732	.14 3.5					
4T-45200 SERIES								
4T-45282	1.8750 47.625	1.2188 30.958	.14 3.5	4T-45220	4.1250 104.775	.9375 23.813	.13 3.3	1.1875 30.162
4T-45284	2.0000 50.800	1.2188 30.958	.25 6.4					
4T-L45400 SERIES								
* 4T-L45449	1.1417 29.000	.5800 14.732	.14 3.5	‡ 4T-L45410	1.9800 50.292	.4200 10.668	.05 1.3	.5600 14.224
4T-46000 SERIES								
4T-46143	1.4375 36.512	1.2500 31.750	.06 1.5	4T-46368	3.6875 93.662	1.0313 26.195	.13 3.3	1.2500 31.750
4T-46162	1.6250 41.275	1.2500 31.750	.03 .8	4T-46369	3.6875 93.662	1.0313 26.195	.05 1.3	1.2500 31.750
4T-46700 SERIES								
4T-46790	6.5000 165.100	1.5625 39.688	.14 3.5	4T-46720	8.8750 225.425	1.3125 33.338	.13 3.3	1.6250 41.275



① These maximum fillet radii will be cleared by the cone or cup radii.

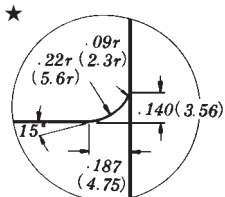
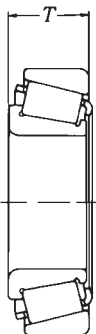
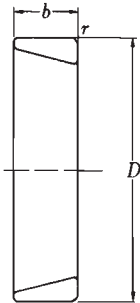
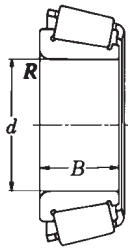
* Cone bore tolerance +.0008 to -.0000 in. (+.020 to -0 mm)

‡ Overall bearing width tolerance +.0140 to -.0000 in. (+.356 to -0 mm)

★ .13 in. (3.3 mm) x 45 degree back face chamfer



Units: **INCHES**
Millimeters



TAPERED ROLLER BEARINGS								
Cone Number	Bore	Cone Width	Max. shaft fillet radius ^①	Cup Number	O.D.	Cup Width	Max. housing fillet radius ^①	Overall Width
	<i>d</i>	<i>B</i>	<i>R</i>		<i>D</i>	<i>b</i>	<i>r</i>	<i>T</i>
4T-47600 SERIES								
4T-47678	3.0000 76.200	1.3125 33.338	.25 6.4	4T-47620	5.2500 133.350	1.0313 26.195	.13 3.3	1.3125 33.338
4T-47679	3.0000 76.200	1.3125 33.338	.14 3.5	■ 4T-47623A	5.3750 136.525	1.7500 44.450	✓ ✓	1.7500 44.450
4T-47681	3.1875 80.962	1.3125 33.338	.14 3.5					
4T-47686	3.2500 82.550	1.3125 33.338	.14 3.5					
4T-47687	3.2500 82.550	1.3125 33.338	.27 6.8					
4T-47800 SERIES								
4T-47890	3.6250 92.075	1.3750 34.925	.14 3.5	4T-47820	5.7500 146.050	1.0313 26.195	.13 3.3	1.3125 33.338
4T-47896	3.7500 95.250	1.3750 34.925	.14 3.5					
4T-LM48500 SERIES								
# 4T-LM48548	1.3750 34.925	.7200 18.288	★	▲ 4T-LM48510	2.5625 65.088	.5500 13.970	.05 1.3	.7100 18.034
4T-48600 SERIES								
4T-48684	5.6250 142.875	1.5625 39.688	.31 .8	4T-48620	7.8750 200.025	1.3437 34.130	.13 3.3	1.6250 41.275
4T-49000 SERIES								
4T-49175	1.7500 44.450	1.2500 31.750	.14 3.5	4T-49368	3.6875 93.662	1.0000 25.400	.13 3.3	1.2500 31.750
4T-49500 SERIES								
4T-49585	2.0000 50.800	1.2500 31.750	.14 3.5	4T-49520	4.0000 101.600	1.0000 25.400	.13 3.3	1.2500 31.750
4T-52000 SERIES								
4T-52387	3.8750 98.425	1.4219 36.116	.14 3.5	4T-52618	6.1875 157.162	1.0313 26.195	.13 3.3	1.4375 36.512
4T-52400	4.0000 101.600	1.4219 36.116	.14 3.5	4T-52638	6.3750 161.925	1.1563 29.370	.13 3.3	1.5625 39.688
4T-52401	4.0000 101.600	1.4219 36.116	.31 .8					
4T-55000C SERIES								
4T-55175C	1.7500 44.450	1.0594 26.909	.14 3.5	4T-55437	4.3750 111.125	.8125 20.638	.13 3.3	1.1875 30.162
4T-55200C	2.0000 50.800	1.0594 26.909	.14 3.5					
4T-56000 SERIES								
4T-56425	4.2500 107.950	1.4375 36.512	.14 3.5	4T-56650	6.5000 165.100	1.0625 26.988	.13 3.3	1.4375 36.512
4T-59000 SERIES								
4T-59162	1.6250 41.275	1.4375 36.512	.06 1.5	4T-59429	4.2900 108.966	1.0625 26.987	.13 3.3	1.3750 34.925
◆ 4T-59200	2.0000 50.800	1.4375 36.512	.14 3.5					
4T-65300 SERIES								
4T-65390	1.9375 49.212	1.7500 44.450	.14 3.5	4T-65320	4.5000 114.300	1.3750 34.925	.13 3.3	1.7500 44.450
4T-LM67000 SERIES								
# 4T-LM67048	1.2500 31.750	.6600 16.764	★	▲ 4T-LM67010	2.3280 59.131	.4650 11.811	.05 1.3	.6250 15.875
4T-67300 SERIES								
4T-67388	5.0000 127.000	1.8125 46.038	.14 3.5	4T-67322	7.7500 196.850	1.5000 38.100	.13 3.3	1.8125 46.038
				4T-67324	8.0000 203.200	1.8125 46.038	.13 3.3	1.8125 46.038

① These maximum fillet radii will be cleared by the cone or cup radii.

Cone bore tolerance +.0008 to -.0000 in. (+.020 to -.0 mm)

▲ Overall bearing width tolerance +.0140 to -.0000 in. (+.356 to -0 mm)

■ Threaded O.D.

◆ Front face corner break .015 in. (0.38 mm) max.

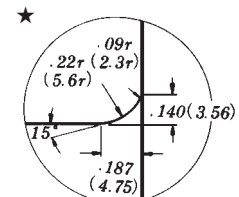
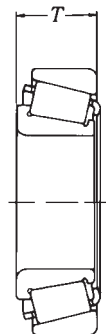
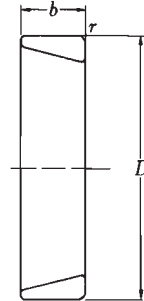
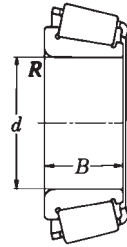
✓ .03 in. (.8 mm) x 45 degree back face chamfer

TAPERED ROLLER BEARINGS

Units: **INCHES**
Millimeters



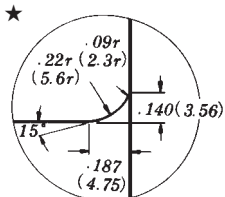
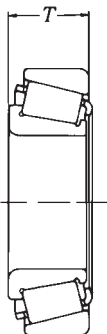
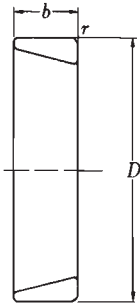
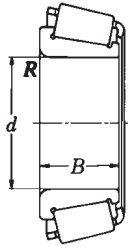
Cone Number	Bore	Cone Width	Max. shaft fillet radius ^①	Cup Number	O.D.	Cup Width	Max. housing fillet radius ^①	Overall Width
	<i>d</i>	<i>B</i>	<i>R</i>		<i>D</i>	<i>b</i>	<i>r</i>	<i>T</i>
4T-L68100 SERIES								
4T-L68149	*1.3780 35.000	.6600 16.764	★	4T-L68110	2.3280 59.131	.4700 11.938	.05 1.3	.6250 15.875
				■4T-L68111	▲2.3622 60.000	.4700 11.938	.05 1.3	.6250 15.875
4T-L69300 SERIES								
● 4T-JL69349	1.4961 38.000	.6693 17.000	★	4T-JL69310	2.4803 63.000	.5313 13.495	.05 1.3	.6693 17.000
4T-72000C SERIES								
◆ 4T-72188C	1.8750 47.625	1.2910 32.791	.03 .8	4T-72487	4.8750 123.825	1.0000 25.400	.13 3.3	1.4375 36.512
4T-72200C	2.0000 50.800	1.2910 32.791	.14 3.5					
4T-78000C SERIES								
4T-78215C	2.1250 53.975	1.3085 33.236	.14 3.5	4T-78551	5.5130 140.030	.9260 23.520	.09 2.3	1.4375 36.512
4T-78225C	2.2500 57.150	1.3085 33.236	.14 3.5					
4T-78238C	2.3750 60.325	1.3085 33.236	.20 5.0					
4T-LM78300 SERIES								
4T-LM78349	*1.3780 35.000	.6693 17.000	★	4T-LM78310A	▲2.4409 62.000	.5354 13.600	.06 1.5	.6575 16.700
4T-HM81600 SERIES								
4T-HM81649	*.6299 16.000	.8268 21.000	.04 1.0	4T-HM81610	▲1.8504 47.000	.6299 16.000	.08 2.0	.8268 21.000
4T-M84200 SERIES								
4T-M84249	1.0000 25.400	.9100 23.114	.03 .8	4T-M84210	2.3437 59.530	.7200 18.288	.06 1.5	.9200 23.368
4T-M84500 SERIES								
4T-M84548	1.0000 25.400	.7650 19.431	.06 1.5	4T-M84510	2.2500 57.150	.5800 14.732	.06 1.5	.7650 19.431
4T-M86600 SERIES								
4T-M86649	1.1875 30.162	.8438 21.433	.06 1.5	4T-M86610	2.5312 64.292	.6563 16.670	.06 1.5	.8438 21.433
4T-M88000 SERIES								
4T-M88048	1.3125 33.338	.8750 22.225	.03 .8	4T-M88010	2.6875 68.262	.6875 17.462	.06 1.5	.8750 22.225
4T-HM88500 SERIES								
4T-HM88542	1.2500 31.750	1.0928 27.783	.05 1.3	4T-HM88510	2.8750 73.025	.9063 23.020	.13 3.3	1.1563 29.370
4T-HM88547	1.3125 33.338	1.0938 27.783	.03 .8					
4T-HM88600 SERIES								
4T-HM88649	1.3750 34.925	1.0000 25.400	.09 2.3	4T-HM88610	2.8438 72.233	.7812 19.842	.09 2.3	1.0000 25.400
				4T-HM88611	▲2.8346 72.000	.8442 21.443	.06 1.5	1.0630 27.000
4T-HM89400 SERIES								
4T-HM89443	1.3125 33.338	1.1250 28.575	.03 .8	4T-HM89410	3.0000 76.200	.9063 23.020	.13 3.3	1.1563 29.370
4T-HM89446	1.3750 34.925	1.1250 28.575	.14 3.5	4T-HM89411	3.0000 76.200	.9063 23.020	.03 .8	1.1563 29.370
4T-HM89448	1.4375 36.512	1.1250 28.575	.03 .8					
4T-HM89449	1.4375 36.512	1.1250 28.575	.14 3.5					
4T-LM102900 SERIES								
4T-LM102949	1.7812 45.242	.7800 19.812	.14 3.5	4T-LM102910	2.8910 73.431	.6200 15.748	.03 .8	.7700 19.558



① These maximum fillet radii will be cleared by the cone or cup radii. ◆ .06 in. (1.5 mm) front face chamfer
 ▲ Cup outside dia. tolerance +.0000 to -.0010 in. (+0 to -.025 mm) * Tolerance +.0000 to -.0005 in. (+0 to -.013 mm)
 ■ Overall bearing width tolerance +.0140 to -.0000 in. (+0.356 to -.0 mm)
 ● For 'J' prefix part tolerances see Table 8 Pg. 216



Units: **INCHES**
Millimeters



TAPERED ROLLER BEARINGS

Cone Number	Bore	Cone Width	Max. shaft fillet radius ^①	Cup Number	O.D.	Cup Width	Max. housing fillet radius ^①	Overall Width
	<i>d</i>	<i>B</i>	<i>R</i>		<i>D</i>	<i>b</i>	<i>r</i>	<i>T</i>
4T-LM104900 SERIES								
4T-LM104949	2.0000 50.800	.8750 22.225	.14 3.5	4T-LM104911	3.2500 82.550	.6500 16.510	.05 1.3	.8500 21.590
●4T-JLM104948	1.9685 50.000	.8465 21.500	.12 3.0	4T-JLM104910	3.2283 82.000	.6693 17.000	.02 .5	.8465 21.500
4T-M201000 SERIES								
◆4T-M201047	1.5625 39.688	.8700 22.098	.03 .8	4T-M201011	2.8750 73.025	.8400 21.336	.09 2.3	1.0100 25.654
4T-M205100 SERIES								
●4T-JM205149	1.9685 50.000	1.1024 28.000	.12 3.0	4T-JM205110	3.5433 90.000	.9055 23.000	.10 2.5	1.1024 28.000
4T-M207000 SERIES								
●4T-JM207049	2.1654 55.000	1.1417 29.000	.06 1.5	4T-JM207010	3.7402 95.000	.9252 23.500	.10 2.5	1.1417 29.000
4T-H211700 SERIES								
●4T-JH211749	2.5591 65.000	1.5157 38.500	.12 3.0	4T-JH211710	4.7244 120.000	1.2598 32.000	.10 2.5	1.5354 39.000
4T-HM212000 SERIES								
4T-HM212044	2.3750 60.325	1.5100 38.354	.31 8.0	4T-HM212010	4.8125 122.238	1.1700 29.718	.06 1.5	1.5000 38.100
4T-HM212046	2.5000 63.500	1.5100 38.354	.14 3.5	4T-HM212011	4.8125 122.238	1.1700 29.718	.13 3.3	1.5000 38.100
4T-HM212047	2.5000 63.500	1.5100 38.354	.28 7.0					
4T-HM212049	2.6250 66.675	1.5100 38.354	.14 3.5					
4T-H212700 SERIES								
4T-H212749	*2.5984 66.000	1.6339 41.500	.28 7.0	4T-212710	▲4.8819 124.000	1.3386 34.000	.14 3.5	1.6339 41.500
4T-L217800 SERIES								
4T-L217849	3.5000 88.900	.8125 20.638	.06 1.5	4T-L217810	4.8750 123.825	.6563 16.670	.06 1.5	.8125 20.638
4T-HM218200 SERIES								
4T-HM218248	■3.5433 90.000	1.5748 40.000	.28 7.0	4T-HM218210	▲5.7874 147.000	1.2795 32.500	.14 3.5	1.5748 40.000
4T-HM220100 SERIES								
4T-HM220149	*3.9370 100.000	1.6535 42.000	.31 8.0	4T-HM220110	▲6.1811 157.000	1.3386 34.000	.14 3.5	1.6535 42.000
4T-LM300800 SERIES								
4T-LM300849	*1.6142 41.000	.7087 18.000	★	4T-LM300811	▲2.6772 68.000	.5315 13.500	.06 1.5	.6890 17.500
4T-H307700 SERIES								
●4T-JH307749	2.1654 55.000	1.5354 39.000	.12 3.0	4T-JH307710	4.3307 110.000	1.2598 32.000	.10 2.5	1.5354 39.000
4T-LM501300 SERIES								
4T-LM501349	1.6250 41.275	.7800 19.812	.14 3.5	4T-LM501310	2.8910 73.431	.5800 14.732	.03 .8	.7700 19.558
				4T-LM501314	2.8910 73.431	.6537 16.604	.03 .8	.8437 21.430
4T-LM503300 SERIES								
4T-LM503349	*1.8110 46.000	.7087 18.000	.09 2.3	4T-LM503310	▲2.9528 75.000	.5512 14.000	.06 1.5	.7087 18.000
4T-HH506300 SERIES								
4T-HH506348	1.9375 49.212	1.7500 44.450	.14 3.5	4T-HH506310	4.5000 114.300	1.4200 36.068	.13 3.3	1.7500 44.450
4T-LM506800 SERIES								
●4T-JLM506849	2.1654 55.000	.9055 23.000	.06 1.5	4T-JLM506810	3.5433 90.000	.7283 18.500	.02 .5	.9055 23.000

① These maximum fillet radii will be cleared by the cone or cup radii.

* Cone bore tolerance +.0000 to -.0005 in. (+0 to -.013 mm)

▲ Cup outside dia. tolerance +.0000 to -.0010 in. (+0 to -.025 mm)

◆ .09 in. (2.3 mm) front face chamfer

■ Tolerance +.0000 to -.0010 in. (+0 to -.025 mm)

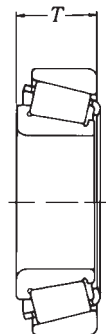
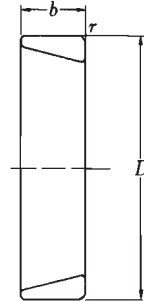
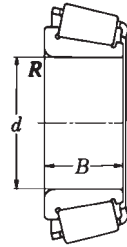
● For 'J' prefix part tolerances see Table 8 Page 216

TAPERED ROLLER BEARINGS

Units: **INCHES**
Millimeters



Cone Number	Bore	Cone Width	Max. shaft fillet radius	Cup Number	O.D.	Cup Width	Max. housing fillet radius	Overall Width
	<i>d</i>	<i>B</i>	$\textcircled{1}$ <i>R</i>		<i>D</i>	<i>b</i>	<i>r</i>	<i>T</i>
4T-LM508700 SERIES								
* 4T-JLM508748	2.3622 60.000	.9449 24.000	.20 5.0	4T-JLM508710	3.7402 95.000	.7480 19.000	.10 2.5	.9449 24.000
4T-M511900 SERIES								
* 4T-JM511946	2.5590 65.000	1.1024 28.000	.12 3.0	4T-JM511910	4.3307 110.000	.8858 22.500	.10 2.5	1.1024 28.000
4T-HM516400 SERIES								
4T-HM516448	3.2500 82.550	1.5625 39.688	.27 6.8	4T-HM516410	5.2500 133.350	1.2813 32.545	.13 3.3	1.5625 39.688
4T-M515600 SERIES								
* 4T-JM515649	3.1496 80.000	1.3386 34.000	.12 3.0	4T-JM515610	5.1181 130.000	1.1220 28.500	.10 2.5	1.3780 35.000
4T-HM515700 SERIES								
4T-HM515745	3.0000 76.200	1.8150 46.100	.14 3.5	4T-HM515716	5.5960 142.138	1.3125 33.338	.13 3.3	1.7500 44.450
4T-HM516800 SERIES								
* 4T-JHM516849	3.3465 85.000	1.4961 38.000	.12 3.0	4T-JHM516810	5.5118 140.000	1.2402 31.500	.10 2.5	1.5354 39.000
4T-HM518400 SERIES								
4T-HM518445	3.5000 88.900	1.5625 39.688	.25 6.4	4T-HM518410	6.0000 152.400	1.1875 30.163	.13 3.3	1.5625 39.688
4T-HM522600 SERIES								
* 4T-JHM522649	4.3307 110.000	1.8110 46.000	.12 3.0	4T-JHM522610	7.0866 180.000	1.4961 38.000	.10 2.5	1.8504 47.000
4T-LM603000 SERIES								
4T-LM603049	1.7812 45.242	.7812 19.842	.14 3.5	4T-LM603011	3.0625 77.788	.5937 15.080	.03 .8	.7812 19.842
				4T-LM603012	3.0625 77.788	.6562 16.667	.03 .8	.8437 21.430
4T-LM612900 SERIES								
* 4T-JM612949	2.7559 70.000	1.1417 29.000	.12 3.0	4T-JM612910	4.5276 115.000	.9055 23.000	.10 2.5	1.1417 29.000
4T-HM617000 SERIES								
4T-HM617049	3.3750 85.725	1.6875 42.862	.19 4.8	4T-HM617010	5.5960 142.138	1.3438 34.133	.13 3.3	1.6875 42.862
4T-M704600 SERIES								
* 4T-JLM704649	1.9685 50.000	.8661 22.000	.14 3.5	4T-JLM704610	3.3071 84.000	.6890 17.500	.06 1.5	.8661 22.000
4T-LM710900 SERIES								
* 4T-JLM710949	2.5591 65.000	.9055 23.000	.12 3.0	4T-JLM710910	4.1339 105.000	.7283 18.500	.04 1.0	.9449 24.000
4T-M714200 SERIES								
* 4T-JM714249	2.9528 75.000	1.1614 29.500	.12 3.0	4T-JM714210	4.7244 120.000	.9843 25.000	.10 2.5	1.2205 31.000
4T-H715300 SERIES								
4T-H715343	2.6875 68.262	1.8125 46.038	.14 3.5	4T-H715311	5.3750 136.525	1.4375 36.512	.13 3.3	1.8125 46.038
4T-H715345	2.8125 71.438	1.8125 46.038	.14 3.5	● 4T-H715313W	5.3750 136.525	1.5625 39.688	.13 3.3	1.9375 49.213
4T-M716600 SERIES								
* 4T-JM716649	3.3465 85.000	1.1417 29.000	.12 3.0	4T-JM716610	5.1181 130.000	.9449 24.000	.10 2.5	1.1811 30.000
4T-M718100 SERIES								
* 4T-JM718149	3.5433 90.000	1.3386 34.000	.12 3.0	4T-JM718110	5.7087 145.000	1.0630 27.000	.10 2.5	1.3780 35.000



① These maximum fillet radii will be cleared by the cone or cup radii.

* For 'J' prefix part tolerances see Table 8 Page 216

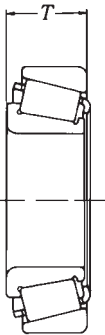
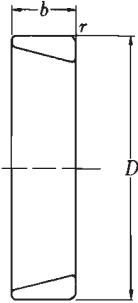
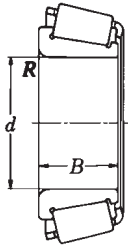
● Key way on backface



Units: **INCHES**
Millimeters

TAPERED ROLLER BEARINGS

Cone Number	Bore	Cone Width	Max. shaft fillet radius ^①	Cup Number	O.D.	Cup Width	Max. housing fillet radius ^①	Overall Width
	<i>d</i>	<i>B</i>	<i>R</i>		<i>D</i>	<i>b</i>	<i>r</i>	<i>T</i>
4T-M719100 SERIES								
*4T-JM719149	3.7402 95.000	1.3386 34.000	.12 3.0	4T-JM719113	5.9055 150.000	1.0630 27.000	.10 2.5	1.3780 35.000
4T-HM720200 SERIES								
*4T-JHM720249	3.9370 100.000	1.5748 40.000	.12 3.0	4T-JHM720210	6.2992 160.000	1.2598 32.000	.10 2.5	1.6142 41.000
4T-M736100 SERIES								
*4T-JM736149	7.0866 180.000	1.7717 45.000	.12 3.0	4T-JM736110	9.8425 250.000	1.4567 37.000	.10 2.5	1.8504 47.000
4T-LM739700 SERIES								
4T-LM739749	7.7500 196.850	1.5625 39.688	.14 3.5	4T-LM739710	10.1250 257.175	1.1875 30.162	.13 3.3	1.5625 39.688
4T-HM801300 SERIES								
4T-HM801346	1.5000 38.100	1.1250 28.575	.03 .8	4T-HM801310	3.2500 82.550	.9063 23.020	.13 3.3	1.1563 29.370
4T-M802000 SERIES								
4T-M802048	1.6250 41.275	1.0100 25.654	.14 3.5	4T-M802011	3.2500 82.550	.7950 20.193	.13 3.3	1.0450 26.543
4T-HM803100 SERIES								
4T-HM803146	1.6250 41.275	1.1563 29.370	.14 3.5	4T-HM803110	3.5000 88.900	.9063 23.020	.13 3.3	1.1875 30.162
4T-HM803149	1.7500 44.450	1.1563 29.370	.14 3.5					
4T-M804000 SERIES								
4T-M804049	1.8750 47.625	1.0000 25.400	.14 3.5	4T-M804010	3.5000 88.900	.7500 19.050	.13 3.3	1.0000 25.400
4T-M804800 SERIES								
4T-HM804846	1.8750 47.625	1.1563 29.370	.14 3.5	4T-HM804810	3.7500 95.250	.9063 23.020	.13 3.3	1.1875 30.162
4T-HM804848	1.9060 48.412	1.1563 29.370	.09 2.3					
4T-LM806600 SERIES								
4T-LM806649	2.1250 53.975	.7500 19.050	.09 2.3	4T-LM806610	3.5000 88.900	.5312 13.492	.08 2.0	.7500 19.050
4T-HM807000 SERIES								
4T-HM807040	1.7500 44.450	1.4375 36.512	.14 3.5	4T-HM807010	4.1250 104.775	1.1250 28.575	.13 3.3	1.4375 36.512
4T-HM807044	1.9375 49.212	1.4375 36.512	.14 3.5					
4T-HM807046	2.0000 50.800	1.4375 36.512	.14 3.5					
4T-HM807049	2.1250 53.975	1.4375 36.512	.14 3.5					
4T-LM813000 SERIES								
*4T-JLM813049	2.7559 70.000	.9843 25.000	.04 1.0	4T-JLM813010	4.3307 110.000	.8071 20.500	.10 2.5	1.0236 26.000
4T-HM813800 SERIES								
4T-HM813840	2.1875 55.562	1.4375 36.512	.14 3.5	4T-HM813810	5.0000 127.000	1.0625 26.988	.13 3.3	1.4375 36.512
4T-HM813841	2.3750 60.325	1.4375 36.512	.14 3.5					
4T-M822000 SERIES								
*4T-JM822049	4.3307 110.000	1.3780 35.000	.12 3.0	4T-JM822010	6.4961 165.000	1.0433 26.500	.10 2.5	1.3780 35.000
4T-HM903200 SERIES								
4T-HM903249	1.7500 44.450	1.1250 28.575	.14 3.5	4T-HM903210	3.7500 95.250	.8750 22.225	.03 .8	1.2188 30.958
4T-HM903249A	1.7500 44.450	1.1142 28.300	.14 3.5					



① These maximum fillet radii will be cleared by the cone or cup radii.

* For 'J' prefix part tolerances see Table 8 Page 216



RATING AT 33.3 RPM FOR 500 HOURS
BASED ON AFBMA

TAPERED ROLLER BEARINGS

Series	Basic Load Ratings (lbs)		Series	Basic Load Ratings (lbs)		Series	Basic Load Ratings (lbs)		Series	Basic Load Ratings (lbs)	
	Dynamic C	Static C ₀		Dynamic C	Static C ₀		Dynamic C	Static C ₀		Dynamic C	Static C ₀
4T-335	15,300	16,900	4T-6500	69,000	104,000	4T-39500	31,000	43,500	4T-L217800	18,000	31,500
4T-355	15,700	17,800	4T-02400	12,800	15,100	4T-41000	13,100	12,500	4T-HM218200	51,000	76,500
4T-365	17,200	20,400	4T-02800	12,700	15,300	4T-42000	31,000	48,500	4T-HM220100	56,000	85,500
4T-385	17,600	21,700	4T-05000	5,400	5,450	4T-42600	30,500	43,500	4T-LM300800	10,300	14,100
4T-395	20,100	27,000	4T-07000	5,850	6,300	4T-43000	14,700	15,000	4T-H307700	39,000	49,500
4T-415	21,500	24,100	4T-09000	8,600	8,700	4T-44000	15,900	17,500	4T-LM501300	12,600	15,700
4T-435	24,300	29,100	4T-11000	9,550	11,600	4T-L44600	6,500	7,600	4T-LM503300	11,500	16,000
4T-455	25,800	33,000	4T-11500	3,950	3,950	4T-45200	29,200	38,000	4T-HH506300	45,500	58,500
4T-475	28,700	40,000	4T-LM11700	5,350	5,450	4T-L45400	6,300	8,000	4T-LM506800	17,400	24,400
4T-495	29,000	42,500	4T-LM11900	6,350	6,450	4T-46000	23,300	29,500	4T-LM508700	18,700	27,300
4T-525	30,500	37,000	4T-12000	9,850	12,200	4T-46700	57,000	125,000	4T-M511900	26,800	39,000
4T-535	32,000	40,000	4T-12500	8,400	8,750	4T-47600	34,500	53,000	4T-M515600	37,500	56,000
4T-555	35,500	48,500	4T-M12600	8,500	8,750	4T-47800	37,000	59,500	4T-HM515700	45,000	62,500
4T-565	36,500	51,500	4T-LM12700	6,650	7,600	4T-LM48500	10,400	12,600	4T-HM516400	40,000	68,000
4T-575	40,000	59,500	4T-13600	10,700	13,400	4T-48600	53,500	110,000	4T-HM516800	44,500	67,000
4T-595	40,500	62,500	4T-14000	10,800	13,000	4T-49000	25,000	30,000	4T-HM518400	57,000	81,500
4T-615	38,500	48,000	4T-15000	10,500	12,200	4T-49500	24,800	30,500	4T-HM522600	68,500	108,000
4T-635	43,500	59,000	4T-15500	8,900	10,200	4T-52000	42,000	68,000	4T-LM603000	12,900	16,600
4T-655	46,500	66,500	4T-16000	10,800	13,100	4T-55000C	23,400	30,500	4T-M612900	28,000	38,500
4T-675	50,000	77,000	4T-17000	8,750	9,500	4T-56000	43,000	70,500	4T-HM617000	48,500	78,500
4T-745	58,500	81,000	4T-17500	6,000	5,850	4T-59000	32,000	40,000	4T-LM704600	15,700	21,200
4T-755	60,500	86,500	4T-17800	13,400	17,000	4T-65300	42,000	50,500	4T-LM710900	19,200	26,200
4T-795	70,500	116,000	4T-18500	10,300	12,500	4T-LM67000	7,750	9,200	4T-M714200	29,400	44,500
4T-855	85,500	124,000	4T-18600	10,200	12,600	4T-67300	69,500	124,000	4T-H715300	50,500	80,000
4T-935	107,000	156,000	4T-18700	11,100	14,600	4T-L68100	7,950	10,700	4T-M716600	30,500	48,000
4T-1300	9,150	9,600	4T-19000	9,750	11,500	4T-L69300	8,700	11,800	4T-M718100	42,500	62,500
4T-1700	9,600	10,400	4T-21000	9,050	8,700	4T-72000C	34,500	42,500	4T-M719100	40,500	62,500
4T-1900	9,150	10,000	4T-22700	16,900	21,800	4T-78000C	38,500	47,500	4T-HM720200	43,000	69,500
4T-2500	15,500	18,300	4T-23000	10,600	11,400	4T-LM78300	8,350	10,800	4T-M736100	83,000	160,000
4T-2600	14,400	16,300	4T-24700	14,600	18,100	4T-HM81600	7,850	8,150	4T-LM739700	60,500	142,000
4T-2700	16,400	20,300	4T-25500	17,100	22,000	4T-M84200	11,200	13,000	4T-HM801300	19,500	26,300
4T-2900	17,700	23,400	4T-25800	15,900	19,200	4T-M84500	9,500	11,000	4T-M802000	18,100	23,400
4T-3100	19,000	22,000	4T-26800	17,200	21,900	4T-M86600	11,600	14,600	4T-803100	21,000	28,000
4T-3300	21,400	25,100	4T-27800	15,100	18,500	4T-M88000	12,700	16,000	4T-M804000	18,500	22,800
4T-3400	20,900	25,600	4T-28000	12,500	14,200	4T-HM88500	16,200	21,800	4T-HM804800	24,400	33,000
4T-3500	21,200	26,400	4T-28500	18,800	26,100	4T-HM88600	14,600	19,000	4T-LM806600	13,700	18,600
4T-3700	22,900	30,000	4T-28600	19,900	28,700	4T-HM89400	17,500	23,700	4T-HM807000	31,000	42,500
4T-3800	23,600	29,600	4T-28900	20,300	30,000	4T-LM102900	12,200	17,100	4T-LM813000	21,800	33,500
4T-3900	26,800	39,000	4T-29500	20,600	31,500	4T-LM104900	15,700	21,100	4T-HM813800	36,500	51,500
4T-4300	30,500	39,500	4T-29600	21,500	34,000	4T-M201000	14,000	17,800	4T-M822000	43,000	70,500
4T-5300	39,000	52,000	4T-LM29700	9,750	12,800	4T-M205100	23,900	31,500	4T-HM903200	21,600	26,100
4T-5500	43,500	63,500	4T-31500	18,100	21,800	4T-M207000	24,000	32,500			
4T-5700	47,500	74,500	4T-33000	26,200	39,500	4T-H211700	41,500	55,500			
4T-6300	62,500	85,000	4T-33800	24,100	31,000	4T-HM212000	42,000	55,000			
4T-6400	64,500	92,000	4T-34000	20,500	28,600	4T-H212700	46,000	62,500			



Bearing Series →

4T-335 SERIES

4T-335 / 332

1.18 ←

Cone Number

Cup Number

Weight (lbs)

TAPERED ROLLER BEARINGS

4T-335 SERIES	4T-335 / 332 .....1.18	4T-387A / 382 .....1.38	4T-475 SERIES	4T-575S / 572 .....5.32
4T-335 / 332A .....1.27	4T-387A / 382A .....1.28	4T-387A / 382S .....1.43	4T-480 / 472 .....3.02	4T-575S / 572X .....5.28
4T-336 / 332 .....1.03	4T-387AS / 382 .....1.37	4T-387AS / 382A .....1.27	4T-480 / 472A .....2.96	4T-576 / 572 .....5.58
4T-336 / 332A .....1.12	4T-387AS / 382S .....1.42	4T-387AS / 383A .....1.44	4T-480 / 472X .....3.34	4T-576 / 572X .....5.55
4T-339 / 332 .....1.18	4T-387AS / 383A .....1.44	4T-387S / 382 .....1.39	4T-482 / 472 .....2.93	4T-577 / 572 .....5.47
4T-339 / 332A .....1.27	4T-387S / 382 .....1.39	4T-387S / 382A .....1.29	4T-482 / 472A .....2.87	4T-577 / 572X .....5.43
4T-342 / 332 .....1.03	4T-387S / 382A .....1.29	4T-387S / 382S .....1.44	4T-482 / 472X .....3.26	4T-580 / 572 .....4.85
4T-342 / 332A .....1.11	4T-387S / 382S .....1.44	4T-387S / 383A .....1.46	4T-483 / 472 .....3.26	4T-580 / 572X .....4.82
4T-342A / 332 .....1.12	4T-387S / 383A .....1.46	4T-388A / 382 .....1.37	4T-483 / 472A .....3.21	4T-581 / 572 .....4.98
4T-342A / 332A .....1.20	4T-388A / 382 .....1.37	4T-388A / 382A .....1.27	4T-483 / 472X .....3.59	4T-581 / 572X .....4.95
4T-342S / 332 ......99	4T-388A / 382A .....1.27	4T-388A / 382S .....1.41	4T-484 / 472 .....2.93	4T-582 / 572 .....4.81
4T-342S / 332A .....1.07	4T-388A / 382S .....1.41	4T-388A / 383A .....1.44	4T-484 / 472A .....2.87	4T-582 / 572X .....4.78
4T-344A / 332 .....1.06	4T-388A / 383A .....1.44	4T-389A / 382 .....1.50	4T-495 SERIES	4T-595 SERIES
4T-344A / 332A .....1.15	4T-389A / 382 .....1.50	4T-389A / 382A .....1.40	4T-495 / 492A .....3.35	4T-593 / 592 .....6.25
4T-355 SERIES	4T-389A / 382S .....1.54	4T-389A / 383A .....1.57	4T-495 / 493 .....3.60	4T-593 / 592A .....6.13
4T-355 / 352 .....1.49	4T-395 SERIES	4T-390 / 393 .....2.41	4T-495A / 492A .....3.75	4T-593 / 592XS .....5.19
4T-355 / 354A .....1.13	4T-390 / 393 .....2.41	4T-390 / 394A .....2.10	4T-495A / 493 .....4.03	4T-593A / 592 .....6.21
4T-355 / 354X .....1.13	4T-390 / 394A .....2.10	4T-390 / 394AS .....2.11	4T-495AX / 492A .....3.73	4T-593A / 592XS .....5.16
4T-355X / 352 .....1.48	4T-395 / 393 .....2.17	4T-395 / 394 .....1.87	4T-495AX / 493 .....4.01	4T-594 / 592 .....5.67
4T-355X / 354A .....1.13	4T-395 / 394 .....1.87	4T-395 / 394AS .....1.87	4T-496 / 492A .....3.45	4T-594 / 592A .....5.53
4T-355X / 354X .....1.13	4T-395A / 393 .....2.06	4T-395A / 394 .....1.75	4T-496 / 493 .....3.73	4T-594 / 592XS .....4.61
4T-359A / 352 .....1.44	4T-395A / 394A .....1.75	4T-395A / 394AS .....1.75	4T-497 / 492A .....3.15	4T-594A / 592 .....5.65
4T-359A / 354A .....1.09	4T-395S / 393 .....2.05	4T-395S / 394 .....1.74	4T-497 / 493 .....3.42	4T-594A / 592A .....5.53
4T-359A / 354X .....1.08	4T-395S / 394AS .....1.75	4T-396 / 393 .....2.64	4T-498 / 492A .....3.24	4T-594A / 592XS .....4.61
4T-359S / 352 .....1.44	4T-396 / 394 .....2.35	4T-396 / 394A .....2.34	4T-498 / 493 .....3.53	4T-595 / 592 .....6.79
4T-359S / 354A .....1.09	4T-396 / 394AS .....2.34	4T-399A / 393 .....1.99	4T-525 SERIES	4T-595 / 592A .....6.66
4T-359S / 354X .....1.09	4T-399A / 393 .....1.99	4T-399A / 394 .....1.68	4T-526 / 522 .....3.16	4T-595 / 592XS .....5.73
4T-365 SERIES	4T-399A / 394 .....1.68	4T-399A / 394AS .....1.69	4T-527 / 522 .....3.02	4T-596 / 592 .....6.52
4T-366 / 362 .....1.20	4T-399AS / 393 .....1.97	4T-399AS / 394 .....1.67	4T-527 / 522 .....3.02	4T-596 / 592A .....6.39
4T-366 / 362A .....1.18	4T-399AS / 394 .....1.67	4T-415 SERIES	4T-528 / 522 .....2.87	4T-596 / 592XS .....5.47
4T-366 / 363 .....1.27	4T-418 / 412 .....1.77	4T-418 / 414 .....1.85	4T-529 / 522 .....2.73	4T-598 / 592 .....5.96
4T-368 / 362 .....1.18	4T-418 / 414 .....1.85	4T-420 / 412 .....1.72	4T-535 SERIES	4T-598 / 592A .....5.84
4T-368 / 362A .....1.14	4T-420 / 412 .....1.72	4T-420 / 414 .....1.79	4T-535 / 532A .....4.09	4T-598 / 592XS .....4.91
4T-368 / 363 .....1.24	4T-435 SERIES	4T-435 SERIES	4T-535 / 532X .....3.71	4T-598A / 592 .....5.93
4T-368A / 362 .....1.16	4T-438 / 432A .....2.11	4T-438 / 432A .....2.52	4T-536 / 532A .....3.94	4T-598A / 592A .....5.80
4T-368A / 362A .....1.14	4T-443 / 432A .....2.52	4T-455 SERIES	4T-536 / 532X .....3.56	4T-598A / 592XS .....4.87
4T-368A / 363 .....1.23	4T-455 SERIES	4T-455 / 453 .....2.86	4T-537 / 532A .....3.79	4T-615 SERIES
4T-368S / 362 .....1.15	4T-455 / 453 .....2.86	4T-455 / 453A .....2.73	4T-537 / 532X .....3.42	4T-620 / 612 .....5.64
4T-368S / 362A .....1.13	4T-455 / 453X .....2.62	4T-455 / 453 .....3.01	4T-539 / 532A .....3.64	4T-621 / 612 .....4.87
4T-368S / 363 .....1.22	4T-455 / 454 .....3.01	4T-461 / 453 .....3.15	4T-539 / 532X .....3.24	4T-623 / 612 .....4.67
4T-369A / 362 .....1.26	4T-461 / 453 .....3.15	4T-461 / 453A .....3.02	4T-539A / 532A .....3.62	4T-635 SERIES
4T-369A / 362A .....1.24	4T-461 / 453X .....2.92	4T-461 / 454 .....3.31	4T-539A / 532X .....3.24	4T-635 / 632 .....6.71
4T-369A / 363 .....1.33	4T-461 / 454 .....3.31	4T-462 / 453 .....2.58	4T-543 / 532A .....4.28	4T-635 / 633 .....5.98
4T-369S / 362 .....1.27	4T-462 / 453 .....2.58	4T-462 / 453A .....2.45	4T-543 / 532X .....3.90	4T-639 / 632 .....6.28
4T-369S / 362A .....1.25	4T-462 / 453X .....2.34	4T-462 / 454 .....2.74	4T-555 SERIES	4T-639 / 633 .....5.55
4T-369S / 363 .....1.34	4T-462 / 454 .....2.74	4T-467 / 453 .....2.98	4T-555S / 552 .....4.91	4T-643 / 632 .....5.80
4T-370A / 362 .....1.16	4T-467 / 453 .....2.98	4T-467 / 453A .....2.85	4T-555S / 552A .....4.81	4T-643 / 633 .....5.08
4T-370A / 362A .....1.13	4T-467 / 453X .....2.73	4T-467 / 454 .....3.14	4T-555S / 553A .....4.93	4T-645 / 632 .....5.65
4T-370A / 363 .....1.23	4T-469 / 453 .....2.57	4T-469 / 453A .....2.45	4T-555S / 553X .....4.65	4T-645 / 633 .....4.93
4T-385 SERIES	4T-469 / 453X .....2.73	4T-469 / 454 .....2.45	4T-557A / 552 .....4.69	4T-655 SERIES
4T-385 / 382 .....1.46	4T-469 / 454 .....2.45	4T-469 / 453X .....2.34	4T-557A / 552A .....4.58	4T-659 / 652 .....7.53
4T-385 / 382A .....1.36	4T-469 / 453 .....2.34	4T-469 / 453A .....2.34	4T-557A / 553A .....4.70	4T-662 / 652 .....6.98
4T-385 / 382S .....1.50	4T-469 / 453X .....2.34	4T-469 / 454 .....2.45	4T-557A / 553X .....4.42	4T-662 / 653 .....6.17
4T-385 / 383A .....1.53	4T-469 / 454 .....2.45	4T-469 / 453 .....2.34	4T-557S / 552 .....5.09	4T-665A / 652 .....6.63
4T-385A / 382 .....1.59	4T-469 / 453A .....2.85	4T-469 / 453X .....2.73	4T-557S / 552A .....4.98	4T-665 / 652 .....6.66
4T-385A / 382A .....1.49	4T-469 / 454 .....2.45	4T-469 / 453A .....2.34	4T-557S / 553A .....5.10	4T-675 SERIES
4T-385A / 382S .....1.64	4T-469 / 453 .....2.34	4T-469 / 453X .....2.34	4T-557S / 553X .....4.82	4T-681 / 672 .....8.53
4T-385A / 383A .....1.66	4T-469 / 453X .....2.34	4T-469 / 454 .....2.45	4T-559 / 552 .....4.53	4T-681A / 672 .....8.51
4T-385X / 382 .....1.46	4T-469 / 454 .....2.45	4T-469 / 453 .....2.34	4T-559 / 552A .....4.43	4T-683 / 672 .....8.20
4T-385X / 382A .....1.35	4T-469 / 453 .....2.34	4T-469 / 453A .....2.34	4T-559 / 553A .....4.54	4T-683XA / 672 .....8.19
4T-385X / 382S .....1.50	4T-469 / 453X .....2.34	4T-469 / 454 .....2.45	4T-559 / 553X .....4.27	4T-685 / 672 .....7.85
4T-385X / 383A .....1.52	4T-469 / 454 .....2.45	4T-469 / 453 .....2.34	4T-560 / 552 .....4.33	4T-687 / 672 .....7.50
4T-386A / 382 .....1.69	4T-469 / 453 .....2.34	4T-469 / 453A .....2.34	4T-560 / 552A .....4.23	4T-745 SERIES
4T-386A / 382A .....1.59	4T-469 / 453X .....2.34	4T-469 / 454 .....2.45	4T-560 / 553A .....4.34	4T-745A / 742 .....8.64
4T-386A / 382S .....1.73	4T-469 / 454 .....2.45	4T-469 / 453 .....2.34	4T-560 / 553X .....4.06	4T-745A / 743 .....8.60
4T-386A / 383A .....1.76	4T-469 / 453 .....2.34	4T-469 / 453X .....2.34	4T-565 SERIES	4T-748 / 742 .....7.70
4T-387 / 382 .....1.39	4T-469 / 453A .....2.85	4T-469 / 454 .....2.45	4T-567 / 563 .....4.01	4T-748 / 743 .....7.63
4T-387 / 382A .....1.29	4T-469 / 454 .....2.45	4T-469 / 453 .....2.34	4T-575 SERIES	4T-749 / 742 .....7.17
4T-387 / 382S .....1.43	4T-469 / 453X .....2.34	4T-469 / 454 .....2.73	4T-575 / 572 .....5.35	4T-749 / 743 .....7.10
4T-387 / 383A .....1.46	4T-469 / 454 .....2.73		4T-575 / 572X .....5.32	



TAPERED ROLLER BEARINGS

4T-749A / 742 7.43	4T-2900 SERIES	4T-5300 SERIES	4T-LM11700 SERIES
4T-749A / 743 7.37	4T-2984 / 2924 1.36	4T-5356 / 5335 4.14	4T-LM11749 / LM11710 19
4T-749S / 742 7.14	4T-3100 SERIES	4T-5358 / 5335 3.96	4T-LM11900 SERIES
4T-749S / 743 7.09	4T-3193 / 3120 1.32	4T-5361 / 5335 3.95	4T-LM11949 / LM11910 27
4T-750A / 742 7.39	4T-3196 / 3120 1.28	4T-5395 / 5335 3.86	4T-12000 SERIES
4T-750A / 743 7.33	4T-3300 SERIES	4T-5500 SERIES	4T-12175 / 12303 68
4T-755 SERIES	4T-3379 / 3320 1.61	4T-5562 / 5535 6.16	4T-12500 SERIES
4T-756A / 752 10.03	4T-3379 / 3325 1.61	4T-5565 / 5535 6.02	4T-12580 / 12520 40
4T-759 / 752 9.02	4T-3384 / 3320 1.43	4T-5566 / 5535 5.71	4T-M12600 SERIES
4T-760 / 752 8.84	4T-3384 / 3325 1.42	4T-5578 / 5535 5.82	4T-M12649 / M12610 37
4T-766 / 752 8.99	4T-3386 / 3320 1.47	4T-5582 / 5535 5.39	4T-LM12700 SERIES
4T-795 SERIES	4T-3386 / 3325 1.47	4T-5583 / 5535 5.38	4T-LM12749 / LM12710 26
4T-797 / 792 12.50	4T-3400 SERIES	4T-5584 / 5535 5.14	4T-LM12749 / LM12711 27
4T-855 SERIES	4T-3478 / 3420 1.60	4T-5595 / 5535 4.96	4T-13600 SERIES
4T-855 / 854 17.33	4T-3479 / 3420 1.56	4T-5700 SERIES	4T-13685 / 13620 65
4T-857 / 854 16.88	4T-3482 / 3420 1.61	4T-5760 / 5735 6.06	4T-13685 / 13621 65
4T-861 / 854 15.43	4T-3490 / 3420 1.51	4T-5795 / 5735 5.90	4T-13686 / 13620 84
4T-864 / 854 16.41	4T-3500 SERIES	4T-6300 SERIES	4T-13686 / 13621 84
4T-866 / 854 16.00	4T-3578 / 3520 1.54	4T-6361 / 6320 8.69	4T-13687 / 13620 66
4T-869 / 854 17.55	4T-3578 / 3525 1.72	4T-6376 / 6320 8.66	4T-13687 / 13621 65
4T-935 SERIES	4T-3578A / 3520 1.53	4T-6379 / 6320 8.18	4T-14000 SERIES
4T-936 / 932 23.59	4T-3578A / 3525 1.71	4T-6381 / 6320 9.12	4T-14116 / 14274 81
4T-938 / 932 22.27	4T-3580 / 3520 1.77	4T-6382 / 6320 8.35	4T-14116 / 14276 82
4T-1300 SERIES	4T-3580 / 3525 1.94	4T-6386 / 6320 8.02	4T-14116 / 14282 88
4T-1380 / 1328 44	4T-3585 / 3520 1.66	4T-6389 / 6320 8.00	4T-14116 / 14283 99
4T-1700 SERIES	4T-3585 / 3525 1.84	4T-6400 SERIES	4T-14117A / 14274 81
4T-1755 / 1729 56	4T-3586 / 3520 1.51	4T-6461A / 6420 9.33	4T-14117A / 14276 81
4T-1755 / 1729X 57	4T-3586 / 3525 1.69	4T-6500 SERIES	4T-14117A / 14282 88
4T-1779 / 1729 54	4T-3700 SERIES	4T-6559 / 6535 11.24	4T-14117A / 14283 98
4T-1779 / 1729X 55	4T-3767 / 3720 1.81	4T-6576 / 6535 11.99	4T-14118 / 14274 81
4T-1780 / 1729 52	4T-3767 / 3730 1.81	4T-6580 / 6535 10.42	4T-14118 / 14276 82
4T-1780 / 1729X 53	4T-3775 / 3720 1.88	4T-02400 SERIES	4T-14118 / 14282 88
4T-1900 SERIES	4T-3775 / 3730 1.89	4T-02474 / 02420 90	4T-14118 / 14283 98
4T-1986 / 1922 53	4T-3776 / 3720 2.10	4T-02475 / 02420 84	4T-14118 / 14274 81
4T-1988 / 1922 48	4T-3776 / 3730 2.11	4T-02800 SERIES	4T-14118 / 14276 82
4T-2500 SERIES	4T-3778 / 3720 1.98	4T-02872 / 02820 1.06	4T-14118 / 14282 88
4T-2580 / 2523 1.00	4T-3778 / 3730 1.99	4T-05000 SERIES	4T-14124 / 14274 78
4T-2585 / 2523 96	4T-3779 / 3720 2.00	4T-05062 / 05185 29	4T-14124 / 14282 86
4T-2600 SERIES	4T-3779 / 3730 2.01	4T-05079 / 05185 26	4T-14124 / 14283 96
4T-2690 / 2631 90	4T-3780 / 3720 1.87	4T-07000 SERIES	4T-14125A / 14274 78
4T-2700 SERIES	4T-3780 / 3730 1.88	4T-07079 / 07196 30	4T-14125A / 14276 78
4T-2776 / 2720 1.09	4T-3781 / 3720 1.93	4T-07079 / 07204 36	4T-14125A / 14282 85
4T-2776 / 2729 1.10	4T-3781 / 3730 1.94	4T-07079 / 07210X 34	4T-14125A / 14283 95
4T-2776 / 2735X 97	4T-3782 / 3720 2.12	4T-07087 / 07196 29	4T-14131 / 14274 76
4T-2777 / 2720 1.08	4T-3782 / 3730 2.13	4T-07087 / 07204 34	4T-14131 / 14276 76
4T-2777 / 2729 1.09	4T-3783 / 3720 2.10	4T-07087 / 07210X 32	4T-14131 / 14282 83
4T-2777 / 2735X 97	4T-3783 / 3730 2.11	4T-07087 / 07204 34	4T-14131 / 14283 93
4T-2780 / 2720 1.14	4T-3784 / 3720 1.85	4T-07087 / 07210X 32	4T-14136A / 14274 86
4T-2780 / 2729 1.15	4T-3784 / 3730 1.86	4T-07093 / 07196 27	4T-14136A / 14276 87
4T-2780 / 2735X 1.03	4T-3795 / 3720 1.86	4T-07093 / 07204 33	4T-14136A / 14282 93
4T-2788 / 2720 1.09	4T-3795 / 3730 1.87	4T-07093 / 07204 33	4T-14136A / 14283 1.04
4T-2788 / 2729 1.10	4T-3800 SERIES	4T-07093 / 07210X 30	4T-14137A / 14274 73
4T-2788 / 2735X 98	4T-3872 / 3820 1.98	4T-07100 / 07196 26	4T-14137A / 14276 73
4T-2789 / 2720 1.05	4T-3872A / 3820 1.99	4T-07100 / 07204 32	4T-14137A / 14282 80
4T-2789 / 2729 1.06	4T-3877 / 3820 1.79	4T-07100 / 07210X 29	4T-14137A / 14283 90
4T-2789 / 2735X 93	4T-3880 / 3820 1.79	4T-09000 SERIES	4T-14137A / 14274 72
4T-2790 / 2720 1.21	4T-3900 SERIES	4T-09067 / 09194 43	4T-14138A / 14274 73
4T-2790 / 2729 1.22	4T-3979 / 3920 3.09	4T-09067 / 09195 39	4T-14138A / 14276 73
4T-2790 / 2735X 1.10	4T-3979 / 3925 3.12	4T-09067 / 09196 44	4T-14138A / 14282 79
4T-2793 / 2720 1.18	4T-3982 / 3920 2.78	4T-09074 / 09194 45	4T-14138A / 14283 90
4T-2793 / 2729 1.19	4T-3982 / 3925 2.80	4T-09074 / 09195 41	4T-15000 SERIES
4T-2793 / 2735X 1.06	4T-3984 / 3920 2.60	4T-09074 / 09196 46	4T-15100 / 15243 66
4T-2794 / 2720 1.13	4T-3984 / 3925 2.62	4T-09078 / 09194 45	4T-15100 / 15244 69
4T-2794 / 2729 1.14	4T-3994 / 3920 2.60	4T-09078 / 09195 41	4T-15100 / 15245 66
4T-2794 / 2735X 1.02	4T-3994 / 3925 2.61	4T-09078 / 09196 46	4T-15100 / 15250 73
4T-2796 / 2720 1.17	4T-4300 SERIES	4T-11000 SERIES	4T-15100 / 15250X 73
4T-2796 / 2729 1.18	4T-4388 / 4335 2.76	4T-11162 / 11300 74	4T-15101 / 15243 66
4T-2796 / 2735X 1.06		4T-11500 SERIES	4T-15101 / 15244 70
		4T-11590 / 11520 23	4T-15101 / 15245 67
			4T-15101 / 15250 73
			4T-15101 / 15250X 73
			4T-15103S / 15243 64



Bearing Series → **4T-335 SERIES**

4T-335 / 332 1.18

Cone Number

Cup Number

Weight (lbs)

TAPERED ROLLER BEARINGS

4T-15103S / 15244 ..... .68	4T-18600 SERIES	4T-26878 / 26830 1.35	4T-34000 SERIES
4T-15103S / 15245 ..... .65	4T-18685 / 18620 ..... .76	4T-26881 / 26820 1.29	4T-34306 / 34478 2.08
4T-15103S / 15250 ..... .72	4T-18690 / 18620 ..... .73	4T-26882 / 26822 1.22	4T-34306 / 34492A 2.22
4T-15103S / 15250X ..... .72	4T-18700 SERIES	4T-26881 / 26823 1.12	4T-39500 SERIES
4T-15106 / 15243 ..... .64	4T-18780 / 18720 ..... .94	4T-26881 / 26830 1.30	4T-39581 / 39520 3.11
4T-15106 / 15244 ..... .67	4T-18790 / 18720 ..... .82	4T-26882 / 26820 1.23	4T-39585 / 39520 2.80
4T-15106 / 15245 ..... .64	4T-19000 SERIES	4T-26882 / 26822 1.17	4T-39590 / 39520 2.63
4T-15106 / 15250 ..... .71	4T-19150 / 19268 ..... .53	4T-26882 / 26823 1.08	4T-41000 SERIES
4T-15106 / 15250X ..... .71	4T-19150 / 19268X ..... .62	4T-26882 / 26830 1.26	4T-41125 / 41286 1.05
4T-15113 / 15243 ..... .62	4T-19150 / 19283X ..... .66	4T-26883 / 26820 1.42	4T-42000 SERIES
4T-15113 / 15244 ..... .65	4T-21000 SERIES	4T-26883 / 26822 1.35	4T-42346 / 42584 4.37
4T-15113 / 15245 ..... .62	4T-21075 / 21212 ..... .55	4T-26883 / 26823 1.25	4T-42346 / 42587 4.72
4T-15113 / 15250 ..... .69	4T-22700 SERIES	4T-26883 / 26830 1.43	4T-42350 / 42584 4.32
4T-15113 / 15250X ..... .69	4T-22780 / 22720 1.36	4T-26884 / 26820 1.20	4T-42350 / 42587 4.65
4T-15116 / 15243 ..... .59	4T-23000 SERIES	4T-26884 / 26822 1.12	4T-42368 / 42584 3.97
4T-15116 / 15244 ..... .62	4T-23100 / 23250X ..... .73	4T-26884 / 26823 1.03	4T-42368 / 42587 4.31
4T-15116 / 15245 ..... .59	4T-24700 SERIES	4T-26884 / 26830 1.21	4T-42375 / 42584 3.86
4T-15116 / 15250 ..... .66	4T-24780 / 24720 ..... .95	4T-26886 / 26820 1.20	4T-42375 / 42587 4.19
4T-15116 / 15250X ..... .66	4T-24780 / 24721 1.04	4T-26886 / 26822 1.13	4T-42381 / 42584 3.73
4T-15117 / 15243 ..... .59	4T-24780 / 24722 ..... .95	4T-26886 / 26823 1.04	4T-42381 / 42587 4.07
4T-15117 / 15244 ..... .62	4T-25500 SERIES	4T-26886 / 26830 1.21	4T-42600 SERIES
4T-15117 / 15245 ..... .59	4T-25577 / 25519 1.26	4T-27800 SERIES	4T-42687 / 42620 3.22
4T-15117 / 15250 ..... .67	4T-25577 / 25520 1.27	4T-27881 / 27820 1.23	4T-43000 SERIES
4T-15117 / 15250X ..... .66	4T-25577 / 25521 1.28	4T-28000 SERIES	4T-43131 / 43300 1.10
4T-15118 / 15243 ..... .58	4T-25577 / 25522 1.29	4T-28150 / 28300 ..... .89	4T-44000 SERIES
4T-15118 / 15244 ..... .62	4T-25577 / 25523 1.38	4T-28500 SERIES	4T-44150 / 44348 1.57
4T-15118 / 15245 ..... .58	4T-25578 / 25519 1.27	4T-28580 / 28520 1.45	4T-L44600 SERIES
4T-15118 / 15250 ..... .66	4T-25578 / 25520 1.29	4T-28580 / 28521 1.55	4T-L44640 / L44610 ..... .30
4T-15118 / 15250X ..... .66	4T-25578 / 25521 1.28	4T-28584 / 28520 1.39	4T-L44643 / L44610 ..... .29
4T-15119 / 15243 ..... .59	4T-25578 / 25522 1.24	4T-28584 / 28521 1.01	4T-L44649 / L44610 ..... .27
4T-15119 / 15244 ..... .62	4T-25578 / 25523 1.39	4T-28600 SERIES	4T-45200 SERIES
4T-15119 / 15245 ..... .59	4T-25578 / 25524 1.46	4T-28678 / 28621 1.84	4T-45282 / 45220 2.84
4T-15119 / 15250 ..... .66	4T-25580 / 25519 1.21	4T-28678 / 28622 1.88	4T-45284 / 45220 2.69
4T-15119 / 15250X ..... .66	4T-25580 / 25520 1.23	4T-28682 / 28621 1.61	4T-L45400 SERIES
4T-15120 / 15243 ..... .59	4T-25580 / 25521 1.23	4T-28682 / 28622 1.65	4T-L45449 / L45410 ..... .25
4T-15120 / 15244 ..... .62	4T-25580 / 25522 1.24	4T-28900 SERIES	4T-46000 SERIES
4T-15120 / 15245 ..... .59	4T-25580 / 25523 1.33	4T-28980 / 28920 1.80	4T-46143 / 46368 2.56
4T-15120 / 15250 ..... .66	4T-25580 / 25524 1.32	4T-28980 / 28921 1.71	4T-46143 / 46369 2.57
4T-15120 / 15250X ..... .66	4T-25583 / 25519 1.20	4T-28985 / 28920 1.78	4T-46162 / 46368 2.40
4T-15123 / 15243 ..... .54	4T-25583 / 25520 1.20	4T-28985 / 28921 1.70	4T-46162 / 46369 2.42
4T-15123 / 15244 ..... .58	4T-25583 / 25521 1.20	4T-29500 SERIES	4T-46700 SERIES
4T-15123 / 15245 ..... .54	4T-25583 / 25522 1.20	4T-29585 / 29520 2.04	4T-46790 / 46720 10.32
4T-15123 / 15250 ..... .62	4T-25583 / 25523 1.20	4T-29600 SERIES	4T-47600 SERIES
4T-15123 / 15250X ..... .62	4T-25583 / 25524 1.20	4T-29675 / 29620 2.09	4T-47678 / 47620 4.23
4T-15125 / 15243 ..... .56	4T-25584 / 25519 1.20	4T-29675 / 29630 2.58	4T-47678 / 47623A 4.25
4T-15125 / 15244 ..... .59	4T-25584 / 25520 1.22	4T-29685 / 29620 1.92	4T-47679 / 47620 4.26
4T-15125 / 15245 ..... .56	4T-25584 / 25521 1.22	4T-29685 / 29630 2.41	4T-47679 / 47623A 4.28
4T-15125 / 15250 ..... .63	4T-25584 / 25522 1.23	4T-LM29700 SERIES	4T-47681 / 47620 3.92
4T-15125 / 15250X ..... .63	4T-25584 / 25523 1.32	4T-LM29748 / LM29710 ..... .51	4T-47681 / 47623A 4.28
4T-15126 / 15243 ..... .56	4T-25584 / 25524 1.32	4T-31500 SERIES	4T-47686 / 47620 3.79
4T-15126 / 15244 ..... .60	4T-25584 / 25525 1.32	4T-31593 / 31520 1.38	4T-47686 / 47623A 3.81
4T-15126 / 15245 ..... .56	4T-25590 / 25519 1.18	4T-31594 / 31520 1.38	4T-47687 / 47620 3.77
4T-15126 / 15250 ..... .63	4T-25590 / 25520 1.20	4T-31597 / 31520 1.33	4T-47687 / 47623A 3.79
4T-15126 / 15250X ..... .63	4T-25590 / 25521 1.19	4T-33000 SERIES	4T-47800 SERIES
4T-15500 SERIES	4T-25590 / 25522 1.19	4T-33225 / 33462 3.48	4T-47890 / 47820 4.59
4T-15578 / 15520 ..... .48	4T-25590 / 25523 1.20	4T-33225 / 33472 3.66	4T-47896 / 47820 4.30
4T-15580 / 15520 ..... .46	4T-25590 / 25524 1.24	4T-33262 / 33462 2.99	4T-LM48500 SERIES
4T-15590 / 15520 ..... .43	4T-25800 SERIES	4T-33262 / 33472 3.18	4T-LM48548 / LM48510 ..... .55
4T-16000 SERIES	4T-25877 / 25820 1.02	4T-33275 / 33462 2.82	4T-48600 SERIES
4T-16150 / 16282 ..... .72	4T-25877 / 25821 1.03	4T-33275 / 33472 3.00	4T-48684 / 48620 8.49
4T-16150 / 16284 ..... .77	4T-25878 / 25820 1.03	4T-33281 / 33462 2.73	4T-49000 SERIES
4T-17000 SERIES	4T-25878 / 25821 1.04	4T-33281 / 33472 2.91	4T-49175 / 49368 2.22
4T-17118 / 17244 ..... .50	4T-25880 / 25820 1.00	4T-33287 / 33462 2.63	4T-49500 SERIES
4T-17500 SERIES	4T-25880 / 25821 1.01	4T-33287 / 33472 2.82	4T-49585 / 49520 2.49
4T-17580 / 17520 ..... .27	4T-26800 SERIES	4T-33800 SERIES	
4T-17800 SERIES	4T-26878 / 26820 1.34	4T-33891 / 33821 1.87	
4T-17887 / 17831 ..... .89	4T-26878 / 26822 1.27		
4T-18500 SERIES	4T-26878 / 26823 1.17		
4T-18590 / 18520 ..... .62			

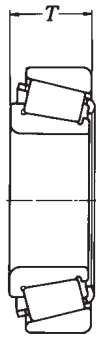
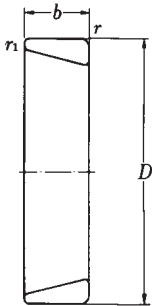
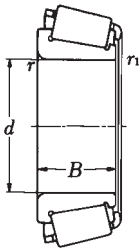


TAPERED ROLLER BEARINGS

4T-52000 SERIES 4T-52387 / 526185.78 4T-52387 / 526386.70 4T-52400 / 526185.47 4T-52400 / 526386.37 4T-52401 / 526185.41 4T-52401 / 526386.32 4T-55000C SERIES 4T-55175C / 554373.20 4T-55200C / 554372.97 4T-56000 SERIES 4T-56425 / 566505.93 4T-59000 SERIES 4T-59162 / 594293.85 4T-59200 / 594293.41 4T-65300 SERIES 4T-65390 / 653204.92 4T-LM67000 SERIES 4T-LM67048 / LM6701040 4T-67300 SERIES 4T-67388 / 6732211.24 4T-67388 / 6732413.08 4T-L68100 SERIES 4T-L68149 / L6811038 4T-L68149 / L6811139 4T-L69300 SERIES 4T-JL69349 / JL6931044 4T-72000C SERIES 4T-72188C / 724874.76 4T-72200C / 724874.63 4T-78000C SERIES 4T-78215C / 785516.09 4T-78225C / 785515.93 4T-78238C / 785515.74 4T-LM78300 SERIES 4T-LM78349 / LM78310A46 4T-HM81600 SERIES 4T-HM81649 / HM8161043 4T-M84200 SERIES 4T-M84249 / M8421071 4T-M84500 SERIES 4T-M84548 / M8451053 4T-M86600 SERIES 4T-M86649 / M8661074 4T-M88000 SERIES 4T-M88048 / M8801083	4T-HM88500 SERIES 4T-HM88542 / HM885101.37 4T-HM88547 / HM885101.33 4T-HM88600 SERIES 4T-HM88649 / HM886101.08 4T-HM88649 / HM886111.12 4T-HM89400 SERIES 4T-HM89443 / HM894101.47 4T-HM89443 / HM894111.48 4T-HM89446 / HM894101.42 4T-HM89446 / HM894111.44 4T-HM89448 / HM894101.39 4T-HM89448 / HM894111.40 4T-HM89449 / HM894101.37 4T-HM89449 / HM894111.39 4T-LM102900 SERIES 4T-LM102949 / LM10291068 4T-LM104900 SERIES 4T-LM104949 / LM10491192 4T-JLM104948 / JLM10491093 4T-LM104949 / LM10491192 4T-JLM104948 / JLM10491093 4T-M201000 SERIES 4T-M201047 / M20101195 4T-M205100 SERIES 4T-JM205149 / JM2051101.66 4T-M20700 SERIES 4T-JM207049 / JM2070101.81 4T-H211700 SERIES 4T-JH211749 / JH211704.19 4T-HM212000 SERIES 4T-HM212044 / HM2120104.49 4T-HM212044 / HM2120114.45 4T-HM212046 / HM2120104.32 4T-HM212046 / HM2120114.30 4T-HM212047 / HM2120104.29 4T-HM212047 / HM2120114.28 4T-HM212049 / HM2120104.11 4T-HM212049 / HM2120114.09 4T-H212700 SERIES 4T-H212749 / 2127104.80 4T-L217800 SERIES 4T-L217849 / L2178101.63 4T-HM218200 SERIES 4T-HM218248 / HM2182105.62 4T-HM220100 SERIES 4T-HM220149 / HM2201106.31	4T-LM300800 SERIES 4T-LM300849 / LM30081153 4T-H307700 SERIES 4T-JH307749 / JH3077103.77 4T-LM501300 SERIES 4T-LM501349 / LM50131074 4T-LM501349 / LM50131478 4T-LM503300 SERIES 4T-LM503349 / LM50331066 4T-HH506300 SERIES 4T-HH506348 / HH5063105.14 4T-LM506800 SERIES 4T-JLM506849 / JLM5068101.23 4T-LM508700 SERIES 4T-JLM508748 / JLM5087101.34 4T-M511900 SERIES 4T-JM511946 / JM5119102.38 4T-HM516400 SERIES 4T-HM516448 / HM5164104.76 4T-M515600 SERIES 4T-JM515649 / JM5156103.81 4T-HM515700 SERIES 4T-HM515745 / HM5157166.75 4T-HM516800 SERIES 4T-JHM516849 / JHM5168105.07 4T-HM518400 SERIES 4T-HM518445 / HM5184106.39 4T-HM522600 SERIES 4T-JHM522649 / JHM52261010.20 4T-LM603000 SERIES 4T-LM603049 / LM60301182 4T-LM612900 SERIES 4T-JM612949 / JM6129102.49 4T-HM617000 SERIES 4T-HM617049 / HM6170105.93 4T-M704600 SERIES 4T-JLM704649 / JLM7046101.03 4T-LM710900 SERIES 4T-JLM710949 / JLM7109101.64 4T-M714200 SERIES 4T-JM714249 / JM7142102.84 4T-H715300 SERIES 4T-H715343 / H7153117.13 4T-H715343 / H715313W7.35 4T-H715345 / H7153116.85 4T-H715345 / H715313W7.07	4T-M716600 SERIES 4T-JM716649 / JM7166103.06 4T-M718100 SERIES 4T-JM718149 / JM7181104.72 4T-M719100 SERIES 4T-JM719149 / JM7191134.83 4T-HM720200 SERIES 4T-JHM720249 / JHM7202106.70 4T-M736100 SERIES 4T-JM736149 / JM73611014.90 4T-LM739700 SERIES 4T-LM739749 / LM7397101.17 4T-HM801300 SERIES 4T-HM801346 / HM8013101.70 4T-M802000 SERIES 4T-M802048 / M8020111.42 4T-HM803100 SERIES 4T-HM803146 / HM8031101.98 4T-HM803149 / HM8031101.87 4T-M804000 SERIES 4T-M804049 / M8040101.45 4T-HM804800 SERIES 4T-HM804846 / HM8048102.16 4T-HM804848 / HM8048102.13 4T-LM806600 SERIES 4T-LM806649 / LM80661096 4T-HM807000 SERIES 4T-HM807040 / HM8070103.57 4T-HM807044 / HM8070103.35 4T-HM807046 / HM8070103.29 4T-HM807049 / HM8070103.11 4T-LM813000 SERIES 4T-JLM813049 / JLM8130101.96 4T-HM813800 SERIES 4T-HM813840 / HM8138105.16 4T-HM813841 / HM8138104.87 4T-M822000 SERIES 4T-JM822049 / JM8220105.56 4T-HM903200 SERIES 4T-HM903249 / HM9032102.21 4T-HM903249A / HM9032102.20
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Units: INCHES
Millimeters



Bearing No.	Bore	O.D.	Overall Width	Cone Width	Cup Width	Fillet Radii		Basic Load Ratings (lbs)	
	<i>d</i>	<i>D</i>	<i>T</i>	<i>B</i>	<i>b</i>	<i>r</i>	<i>r₁</i>	Dynamic <i>C</i>	Static <i>C₀</i>
4T-30208	1.5748 40	3.1496 80	.7776 19.75	.7087 18	.6299 16	.059 1.5	.059 1.5	13,800	15,100
4T-30209	1.7717 45	3.3465 85	.8169 20.75	.7480 19	.6299 16	.059 1.5	.059 1.5	15,200	17,600
4T-30210	1.9685 50	3.5433 90	.8563 21.75	.7874 20	.6693 17	.059 1.5	.059 1.5	17,400	20,900
4T-30211	2.1654 55	3.9370 100	.8957 22.75	.8268 21	.7087 18	.079 2	.059 1.5	20,900	24,900
4T-30212	2.3622 60	4.3307 110	.9350 23.75	.8661 22	.7480 19	.079 2	.059 1.5	23,500	28,000
4T-30213	2.5591 65	4.7244 120	.9744 24.75	.9055 23	.7874 20	.079 2	.059 1.5	27,700	33,000
4T-30214	2.7559 70	4.9213 125	1.0335 26.25	.9449 24	.8268 21	.079 2	.059 1.5	29,500	36,500
4T-30215	2.9528 75	5.1181 130	1.0728 27.25	.9843 25	.8661 22	.079 2	.059 1.5	31,000	39,500
30216U	3.1496 80	5.5118 140	1.1122 28.25	1.0236 26	.8661 22	.098 2.5	.079 2	36,000	45,000
30217U	3.3465 85	5.9055 150	1.2008 30.5	1.1024 28	.9449 24	.098 2.5	.079 2	41,000	52,000
30218U	3.5433 90	6.2992 160	1.2795 32.5	1.1811 30	1.0236 26	.098 2.5	.079 2	46,500	60,000
30219U	3.7402 95	6.6929 170	1.3583 34.5	1.2598 32	1.0630 27	.118 3	.098 2.5	51,000	65,000
30220U	3.9370 100	7.0866 180	1.4567 37	1.3386 34	1.1417 29	.118 3	.098 2.5	58,000	75,500
30221U	4.1339 105	7.4803 190	1.5354 39	1.4173 36	1.1811 30	.118 3	.098 2.5	64,500	85,000
30222U	4.3307 110	7.8740 200	1.6142 41	1.4961 38	1.2598 32	.118 3	.098 2.5	72,500	97,500
30224U	4.7244 120	8.4646 215	1.7126 43.5	1.5748 40	1.3386 34	.118 3	.098 2.5	78,000	106,000
30226U	5.1181 130	9.0551 230	1.7224 43.75	1.5748 40	1.3386 34	.157 4	.118 3	84,000	113,000
30228*	5.5118 140	9.8425 250	1.8012 45.75	1.6535 42	1.4173 36	.118 3	.118 3	84,000	109,000
30230U	5.9055 150	10.6299 270	1.9291 49	1.7717 45	1.4961 38	.157 4	.118 3	101,000	136,000
30232U	6.2992 160	11.4173 290	2.0472 52	1.8898 48	1.5748 40	.157 4	.118 3	118,000	162,000
30234U	6.6929 170	12.2047 310	2.2441 57	2.0472 52	1.6929 43	.197 5	.157 4	137,700	190,000
30236*	7.0866 180	12.5984 320	2.2441 57	2.0472 52	1.6929 43	.157 4	.157 4	126,000	162,000
30238U	7.4803 190	13.3858 340	2.3622 60	2.1654 55	1.8110 46	.197 5	.157 4	161,000	226,000
30240*	7.8740 200	14.1732 360	2.5197 64	2.2835 58	1.8898 48	.157 4	.157 4	152,000	223,000
4T-30306	1.1811 30	2.8346 72	.8169 20.75	.7480 19	.6299 16	.059 1.5	.059 1.5	13,500	13,700
4T-30307	1.3780 35	3.1496 80	.8957 22.75	.8268 21	.7087 18	.079 2	.059 1.5	16,800	17,400
4T-30307D	1.3780 35	3.1496 80	.8957 22.75	.8268 21	.5906 15	.079 2	.059 1.5	14,300	15,700
4T-30308	1.5748 40	3.5433 90	.9941 25.25	.9055 23	.7874 20	.079 2	.059 1.5	20,600	22,900
4T-30308D	1.5748 40	3.5433 90	.9941 25.25	.9055 23	.6693 17	.079 2	.059 1.5	17,300	19,200
4T-30309	1.7717 45	3.9370 100	1.0728 27.25	.9843 25	.8661 22	.079 2	.059 1.5	25,000	28,300
4T-30309D	1.7717 45	3.9370 100	1.0728 27.25	.9843 25	.7087 18	.079 2	.059 1.5	21,600	24,500
4T-30310	1.9685 50	4.3307 110	1.1516 29.25	1.0630 27	.9055 23	.098 2.5	.079 2	29,800	34,000
4T-30310D	1.9685 50	4.3307 110	1.1516 29.25	1.0630 27	.7480 19	.098 2.5	.079 2	25,500	29,300
4T-30311	2.1654 55	4.7244 120	1.2402 31.5	1.1417 29	.9843 25	.098 2.5	.079 2	35,000	40,500
4T-30311D	2.1654 55	4.7244 120	1.2402 31.5	1.1417 29	.8268 21	.098 2.5	.079 2	29,700	34,500
4T-30312D	2.3622 60	5.1181 130	1.3189 33.5	1.2205 31	.8661 22	.118 3	.098 2.5	34,000	39,500
30312U	2.3622 60	5.1181 130	1.3189 33.5	1.2205 31	1.0236 26	.118 3	.098 2.5	40,500	47,000
4T-30313D	2.5591 65	5.5118 140	1.4173 36	1.2992 33	.9055 23	.118 3	.098 2.5	39,000	46,000

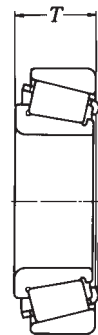
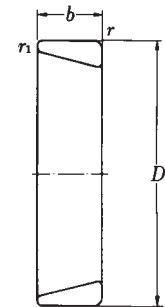
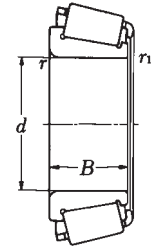
* These bearings do not adopt subunit size.

TAPERED ROLLER BEARINGS

Units: **INCHES**
Millimeters



Bearing No.	Bore <i>d</i>	O.D. <i>D</i>	Overall Width <i>T</i>	Cone Width <i>B</i>	Cup Width <i>b</i>	Fillet Radii		Basic Load Ratings (lbs)	
						<i>r</i>	<i>r_i</i>	Dynamic <i>C</i>	Static <i>C_o</i>
30313U	2.5591	5.5118	1.4173	1.2992	1.1024	.118	.098	45,500	53,500
4T-30314D	2.7559	5.9055	1.4961	1.3780	.9843	.118	.098	43,500	51,500
30314U	2.7559	5.9055	1.4961	1.3780	1.1811	.118	.098	51,500	61,000
30315DU	2.9528	6.2992	1.5748	1.4567	1.0236	.118	.098	48,500	57,500
30315U	2.9528	6.2992	1.5748	1.4567	1.2205	.118	.098	57,500	68,000
30316DU	3.1496	6.6929	1.6732	1.5354	1.0630	.118	.098	53,000	63,500
30316U	3.1496	6.6929	1.6732	1.5354	1.2992	.118	.098	65,500	79,000
30317DU	3.3465	7.0866	1.7520	1.6142	1.1024	.157	.118	55,500	66,000
30317U	3.3465	7.0866	1.7520	1.6142	1.3386	.157	.118	68,500	81,500
30318DU	3.5433	7.4803	1.8307	1.6929	1.1811	.157	.118	61,000	72,500
30318U	3.5433	7.4803	1.8307	1.6929	1.4173	.157	.118	76,000	91,500
30319*	3.7402	7.8740	1.9488	1.7717	1.4961	.118	.118	71,000	82,500
30319DU	3.7402	7.8740	1.9488	1.7717	1.2598	.157	.118	66,500	80,000
30320*	3.9370	8.4646	2.0276	1.8504	1.5354	.118	.118	75,000	86,000
30321*	4.1339	8.8583	2.1063	1.9291	1.6142	.118	.118	82,000	94,500
30322*	4.3307	9.4488	2.1457	1.9685	1.6535	.118	.118	89,500	104,000
30324*	4.7244	10.2362	2.3425	2.1654	1.8110	.118	.118	105,000	123,000
30326*	5.1181	11.0236	2.5098	2.2835	1.9291	.157	.157	118,000	140,000
30328*	5.5118	11.8110	2.6673	2.4409	2.0866	.157	.157	144,000	176,000
30330*	5.9055	12.5984	2.8346	2.5591	2.1654	.157	.157	153,000	197,000
30332*	6.2992	13.3858	2.9528	2.6772	2.2835	.157	.157	170,000	219,000
30334*	6.6929	14.1732	3.1496	2.8346	2.4409	.157	.157	190,000	248,000
31320XU	3.9370	8.4646	2.2244	2.0079	1.3780	.157	.118	79,500	97,500
31321XU	4.1339	8.8583	2.2835	2.0866	1.4173	.157	.118	85,500	105,000
31322XU	4.3307	9.4488	2.4803	2.2441	1.4961	.157	.118	97,000	120,000
31324XU	4.7244	10.2362	2.6772	2.4409	1.6535	.157	.118	116,000	147,000
31326XU	5.1181	11.0236	2.8346	2.5984	1.7323	.197	.157	135,000	176,000
31328XU	5.5118	11.8110	3.0315	2.7559	1.8504	.197	.157	154,000	204,000
31330XU	5.9055	12.5984	3.2283	2.9528	1.9685	.197	.157	175,000	232,000
32016XU	3.1496	4.9213	1.1417	1.1417	.8661	.059	.059	31,500	48,500
32017XU	3.3465	5.1181	1.1417	1.1417	.8661	.059	.059	32,000	50,500
32018XU	3.5433	5.5118	1.2598	1.2598	.9449	.079	.059	38,000	61,000
32019XU	3.7402	5.7087	1.2598	1.2598	.9449	.079	.059	38,500	63,000
32020XU	3.9370	5.9055	1.2598	1.2598	.9449	.079	.059	38,000	63,000
32021XU	4.1339	6.2992	1.3780	1.3780	1.0236	.098	.079	45,000	75,000
32022XU	4.3307	6.6929	1.4961	1.4961	1.1417	.098	.079	53,000	87,500
32024XU	4.7244	7.0866	1.4961	1.4961	1.1417	.098	.079	55,000	94,500
32026XU	5.1181	7.8740	1.7717	1.7717	1.3386	.098	.079	71,500	122,000



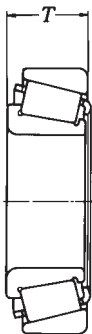
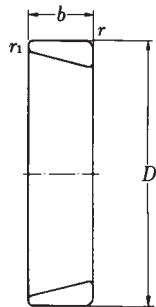
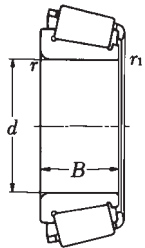
* These bearings do not adopt subunit size.



Units: **INCHES**
Millimeters

TAPERED ROLLER BEARINGS

Bearing No.	Bore <i>d</i>	O.D. <i>D</i>	Overall Width <i>T</i>	Cone Width <i>B</i>	Cup Width <i>b</i>	Fillet Radii		Basic Load Ratings (lbs)	
						<i>r</i>	<i>r₁</i>	Dynamic <i>C</i>	Static <i>C₀</i>
32028XU	5.5118 140	8.2677 210	1.7717 45	1.7717 45	1.3386 34	.098 2.5	.079 2	74,500	131,000
32030XU	5.9055 150	8.8583 225	1.8898 48	1.8898 48	1.4173 36	.118 3	.098 2.5	83,000	147,000
32032XU	6.2992 160	9.4488 240	2.0079 51	2.0079 51	1.4961 38	.118 3	.098 2.5	98,000	178,000
32034XU	6.6929 170	10.2362 260	2.2441 57	2.2441 57	1.6929 43	.118 3	.098 2.5	112,000	201,000
32036XU	7.0866 180	11.0236 280	2.5197 64	2.5197 64	1.8898 48	.118 3	.098 2.5	145,000	262,000
32038XU	7.4803 190	11.4173 290	2.5197 64	2.5197 64	1.8898 48	.118 3	.098 2.5	148,000	272,000
32040XU	7.8740 200	12.2047 310	2.7559 70	2.7559 70	2.0866 53	.118 3	.098 2.5	180,000	330,000
32044XU	8.6614 220	13.3858 340	2.9921 76	2.9921 76	2.2441 57	.157 4	.118 3	207,000	380,000
32048XU	9.4488 240	14.1732 360	2.9921 76	2.9921 76	2.2441 57	.157 4	.118 3	209,000	395,000
32052XU	10.2362 260	15.7480 400	3.4252 87	3.4252 87	2.5591 65	.197 5	.157 4	271,000	510,000
32056XU	11.0236 280	16.5354 420	3.4252 87	3.4252 87	2.5591 65	.197 5	.157 4	275,000	530,000
32060XU	11.8110 300	18.1102 460	3.9370 100	3.9370 100	2.9134 74	.197 5	.157 4	335,000	635,000
32064XU	12.5984 320	18.8976 480	3.9370 100	3.9370 100	2.9134 74	.197 5	.157 4	340,000	660,000
4T-32203R*	.6693 17	1.5748 40	.6791 17.25	.6299 16	.5512 14	.039 1	.039 1	5,900	6,350
4T-32205R*	.9843 25	2.0472 52	.7579 19.25	.7087 18	.5906 15	.039 1	.039 1	8,550	9,650
4T-32208	1.5748 40	3.1496 80	.9744 24.75	.9055 23	.7480 19	.059 1.5	.059 1.5	17,800	21,000
4T-32209	1.7717 45	3.3465 85	.9744 24.75	.9055 23	.7480 19	.059 1.5	.059 1.5	18,400	22,500
4T-32210	1.9685 50	3.5433 90	.9744 24.75	.9055 23	.7480 19	.059 1.5	.059 1.5	19,700	24,500
4T-32211	2.1654 55	3.9370 100	1.0531 26.75	.9843 25	.8268 21	.079 2	.059 1.5	24,300	30,000
32212U	2.3622 60	4.3307 110	1.1713 29.75	1.1024 28	.9449 24	.079 2	.059 1.5	29,200	37,000
32213U	2.5591 65	4.7244 120	1.2894 32.75	1.2205 31	1.0630 27	.079 2	.059 1.5	35,500	46,000
32214U	2.7559 70	4.9213 125	1.3091 33.25	1.2205 31	1.0630 27	.079 2	.059 1.5	37,500	49,500
32215U	2.9528 75	5.1181 130	1.3091 33.25	1.2205 31	1.0630 27	.079 2	.059 1.5	37,500	50,500
32216U	3.1496 80	5.5118 140	1.3878 35.25	1.2992 33	1.1024 28	.098 2.5	.079 2	44,500	59,500
32217U	3.3465 85	5.9055 150	1.5157 38.5	1.4173 36	1.1811 30	.098 2.5	.079 2	50,500	67,500
32218U	3.5433 90	6.2992 160	1.6732 42.5	1.5748 40	1.3386 34	.098 2.5	.079 2	59,000	81,000
32219U	3.7402 95	6.6929 170	1.7913 45.5	1.6929 43	1.4567 37	.118 3	.098 2.5	67,500	93,500
32220U	3.9370 100	7.0866 180	1.9291 49	1.8110 46	1.5354 39	.118 3	.098 2.5	74,500	104,000
32221U	4.1339 105	7.4803 190	2.0866 53	1.9685 50	1.6929 43	.118 3	.098 2.5	85,000	122,000
32222U	4.3307 110	7.8740 200	2.2047 56	2.0866 53	1.8110 46	.118 3	.098 2.5	94,500	136,000
32224U	4.7244 120	8.4646 215	2.4213 61.5	2.2835 58	1.9685 50	.118 3	.098 2.5	104,000	153,000
32226U	5.1181 130	9.0551 230	2.6673 67.75	2.5197 64	2.1260 54	.157 4	.118 3	119,000	183,000
32228U	5.5118 140	9.8425 250	2.8248 71.75	2.6772 68	2.2835 58	.157 4	.118 3	137,000	207,000
32230U	5.9055 150	10.6299 270	3.0315 77	2.8740 73	2.3622 60	.157 4	.118 3	157,000	240,000
32232U	6.2992 160	11.4173 290	3.3071 84	3.1496 80	2.6378 67	.157 4	.118 3	200,000	320,000
32234U	6.6929 170	12.2047 310	3.5827 91	3.3858 86	2.7953 71	.197 5	.157 4	224,000	360,000
32236U	7.0866 180	12.5984 320	3.5827 91	3.3858 86	2.7953 71	.197 5	.157 4	231,000	380,000
32238*	7.4803 190	13.3858 340	3.8189 97	3.6220 92	2.9528 75	.157 4	.157 4	225,000	375,000



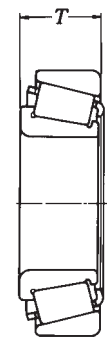
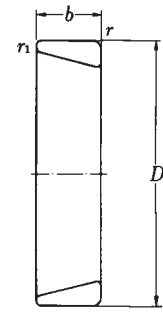
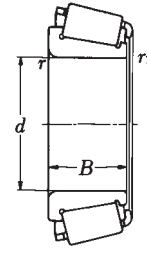
* These bearings do not adopt subunit size.

TAPERED ROLLER BEARINGS

Units: **INCHES**
Millimeters



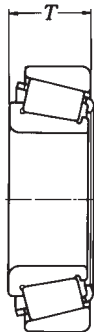
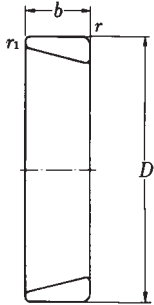
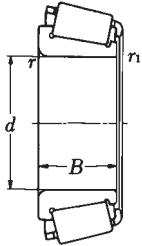
Bearing No.	Bore <i>d</i>	O.D. <i>D</i>	Overall Width <i>T</i>	Cone Width <i>B</i>	Cup Width <i>b</i>	Fillet Radii		Basic Load Ratings (lbs)	
						<i>r</i>	<i>r_i</i>	Dynamic <i>C</i>	Static <i>C₀</i>
32240*	7.8740	14.1732	4.0945	3.8583	3.2283	.157	.157	259,000	440,000
4T-32306	1.1811	2.8346	1.1319	1.0630	.9055	.059	.059	18,200	20,200
4T-32307	1.3780	3.1496	1.2894	1.2205	.9843	.079	.059	22,800	25,800
4T-32308	1.5748	3.5433	1.3878	1.2992	1.0630	.079	.059	27,500	33,500
4T-32308C	1.5748	3.5433	1.3878	1.2992	1.0630	.079	.059	24,800	31,500
4T-32309	1.7717	3.9370	1.5059	1.4173	1.1811	.079	.059	34,500	43,000
4T-32310	1.9685	4.3307	1.6634	1.5748	1.2992	.098	.079	41,500	52,000
4T-32311	2.1654	4.7244	1.7913	1.6929	1.3780	.098	.079	48,500	62,000
32312U	2.3622	5.1181	1.9094	1.8810	1.4567	.118	.098	55,000	70,500
32313U	2.5591	5.5118	2.0079	1.8898	1.5354	.118	.098	61,500	79,000
32314U	2.7559	5.9055	2.1260	2.0079	1.6535	.118	.098	69,500	90,500
32315U	2.9528	6.2992	2.2835	2.1654	1.7717	.118	.098	80,000	105,000
32316U	3.1496	6.6929	2.4213	2.2835	1.8898	.118	.098	89,000	118,000
32317U	3.3465	7.0866	2.5000	2.3622	1.9291	.157	.118	90,500	118,000
32318U	3.5433	7.4803	2.6575	2.5197	2.0866	.157	.118	101,000	133,000
32319U	3.7402	7.8740	2.8150	2.6378	2.1654	.157	.118	113,000	151,000
32320U	3.9370	8.4646	3.0512	2.8740	2.3622	.157	.118	128,000	173,000
32321U	4.1339	8.8583	3.2087	3.0315	2.4803	.157	.118	138,000	186,000
32322*	4.3307	9.4488	3.3268	3.1496	2.5591	.118	.118	140,000	186,000
32324U	4.7244	10.2362	3.5630	3.3858	2.7165	.157	.118	183,000	255,000
32910XU	1.9685	2.8346	.5906	.5906	.4724	.024	.024	8,000	12,800
32911XU	2.1654	3.1496	.6693	.6693	.5512	.039	.039	10,000	16,500
32912XU	2.3622	3.3465	.6693	.6693	.5512	.039	.039	10,300	17,600
32912XU	2.5591	3.5433	.6693	.6693	.5512	.039	.039	10,900	19,200
32914XU	2.7559	3.9370	.7874	.7874	.6299	.039	.039	15,400	24,700
32915XU	2.9528	4.1339	.7874	.7874	.6299	.039	.039	15,600	25,600
32916XU	3.1496	4.3307	.7874	.7874	.6299	.039	.039	16,200	27,300
32917XU	3.3465	4.7244	.9055	.9055	.7087	.059	.059	21,100	35,500
32918XU	3.5433	4.9213	.9055	.9055	.7087	.059	.059	21,900	37,500
32919XU	3.7402	5.1181	.9055	.9055	.7087	.059	.059	22,600	40,000
32920XU	3.9370	5.5118	.9843	.9843	.7874	.059	.059	27,200	46,500
32921XU	4.1339	5.7087	.9843	.9843	.7874	.059	.059	28,200	49,500
32922XU	4.3307	5.9055	.9843	.9843	.7874	.059	.059	28,600	51,000
32924XU	4.7244	6.4961	1.1417	1.1417	.9055	.059	.059	36,500	66,000
32926XU	5.1181	7.0866	1.2598	1.2598	.9843	.079	.059	43,500	79,000
32928XU	5.5118	7.4803	1.2598	2.2598	.9843	.079	.059	45,000	84,000
32930XU	5.9055	8.2677	1.4961	1.4961	1.1811	.098	.079	60,000	110,000
32932XU	6.2992	8.6614	1.4961	1.4961	1.1811	.098	.079	62,000	117,000



* These bearings do not adopt subunit size.



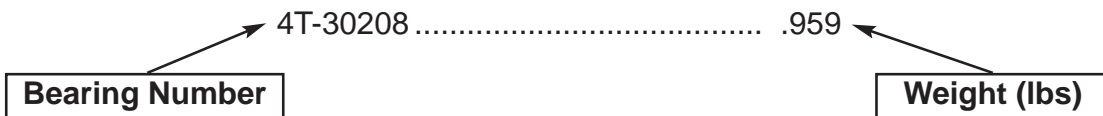
Units: INCHES
Millimeters



TAPERED ROLLER BEARINGS

Bearing No.	Bore	O.D.	Overall Width	Cone Width	Cup Width	Fillet Radii		Basic Load Ratings (lbs)	
	<i>d</i>	<i>D</i>	<i>T</i>	<i>B</i>	<i>b</i>	<i>r</i>	<i>r₁</i>	Dynamic <i>C</i>	Static <i>C₀</i>
32934XU	6.6929 170	9.0551 230	1.4961 38	1.4961 38	1.1811 30	.098 2.5	.079 2	64,500	125,000
32936XU	7.0866 180	9.8425 250	1.7717 45	1.7717 45	1.3386 34	.098 2.5	.079 2	79,000	158,000
32938XU	7.4803 190	10.2362 260	1.7717 45	1.7717 45	1.3386 34	.098 2.5	.079 2	79,500	159,000
32940XU	7.8740 200	11.0236 280	2.0079 51	2.0079 51	1.5354 39	.118 3	.098 2.5	108,000	201,000
32944XU	8.6614 220	11.8110 300	2.0079 51	2.0079 51	1.5354 39	.118 3	.098 2.5	108,000	213,000
32948XU	9.4488 240	12.5984 320	2.0079 51	2.0079 51	1.5354 39	.118 3	.098 2.5	110,000	226,000
32952XU	10.2362 260	14.1732 360	2.5000 63.5	2.5000 63.5	1.8898 48	.118 3	.098 2.5	159,000	320,000
32956XU	11.0236 280	14.9606 380	2.5000 63.5	2.5000 63.5	1.8898 48	.118 3	.098 2.5	163,000	340,000
32960XU	11.8110 300	16.5354 420	2.9921 76	2.9921 76	2.2441 57	.157 4	.118 3	226,000	470,000
32964XU	12.5984 320	17.3228 440	2.9921 76	2.9921 76	2.2441 57	.157 4	.118 3	228,000	485,000
32968XU	13.3858 340	18.1102 460	2.9921 76	2.9921 76	2.2441 57	.157 4	.118 3	235,000	510,000
32972XU	14.1732 360	18.8976 480	2.9921 76	2.9921 76	2.2441 57	.157 4	.118 3	236,000	525,000
33016U	3.1496 80	4.9213 125	1.4173 36	1.4173 36	1.1614 29.5	.059 1.5	.059 1.5	39,000	64,000
33017U	3.3465 85	5.1181 130	1.4173 36	1.4173 36	1.1614 29.5	.059 1.5	.059 1.5	39,500	66,500
33018U	3.5433 90	5.5118 140	1.5354 39	1.5354 39	1.2795 32.5	.079 2	.059 1.5	48,000	80,500
33019U	3.7402 95	5.7087 145	1.5354 39	1.5354 39	1.2795 32.5	.079 2	.059 1.5	49,500	84,000
33020U	3.9370 100	5.9055 150	1.5354 39	1.5354 39	1.2795 32.5	.079 2	.059 1.5	50,500	87,500
33021U	4.1339 105	6.2992 160	1.6929 43	1.6929 43	1.3386 34	.098 2.5	.079 2	55,000	94,500
33022U	4.3307 110	6.6929 170	1.8504 47	1.8504 47	1.4567 37	.098 2.5	.079 2	65,000	113,000
4T-33113	2.5591 65	4.3307 110	1.3386 34	1.3386 34	1.0433 26.5	.059 1.5	.059 1.5	32,500	47,500
4T-33208	1.5748 40	3.1496 80	1.2598 32	1.2598 32	.9843 25	.059 1.5	.059 1.5	23,300	29,600
4T-33209	1.7717 45	3.3465 85	1.2598 32	1.2598 32	.9843 25	.059 1.5	.059 1.5	24,100	31,500
4T-33210	1.9685 50	3.5433 90	1.2598 32	1.2598 32	.9646 24.5	.059 1.5	.059 1.5	25,800	35,500
4T-33211	2.1654 55	3.9370 100	1.3780 35	1.3780 35	1.0630 27	.079 2	.059 1.5	31,000	42,000
33212U	2.3622 60	4.3307 110	1.4961 38	1.4961 38	1.1417 29	.079 2	.059 1.5	37,500	52,500
33213U	2.5591 65	4.7244 120	1.6142 41	1.6142 41	1.2598 32	.079 2	.059 1.5	44,000	59,500
33214U	2.7559 70	4.9213 125	1.6142 41	1.6142 41	1.2598 32	.079 2	.059 1.5	45,500	63,500
33215U	2.9528 75	5.1181 130	1.6142 41	1.6142 41	1.2205 31	.079 2	.059 1.5	46,500	67,000
33216U	3.1496 80	5.5118 140	1.8110 46	1.8110 46	1.3780 35	.098 2.5	.079 2	56,500	82,500
33217U	3.3465 85	5.9055 150	1.9291 49	1.9291 49	1.4567 37	.098 2.5	.079 2	64,000	94,500

* These bearings do not adopt subunit size.

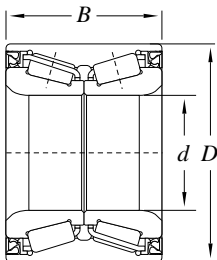
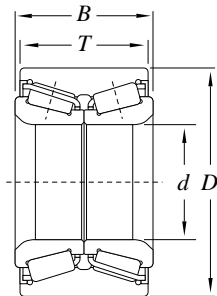


METRIC ISO SERIES TAPERED ROLLER BEARINGS			
4T-30208	.....	.959	
4T-30209	.....	1.09	
4T-30210	.....	1.24	
4T-30211	.....	1.63	
4T-30212	.....	2.09	
4T-30213	.....	2.60	
4T-30214	.....	2.78	
4T-30215	.....	3.11	
30216U	.....	3.79	
30217U	.....	4.72	
30218U	.....	5.86	
30219U	.....	6.77	
30220U	.....	8.33	
30221U	.....	9.68	
30222U	.....	11.4	
30224U	.....	13.7	
30226U	.....	16.0	
30228	.....	18.1	
30230U	.....	24.7	
30232U	.....	28.4	
30234U	.....	37.5	
30236	.....	37.9	
30238U	.....	45.9	
30240	.....	54.7	
4T-30306	.....	899	
4T-30307	.....	1.19	
4T-30307D	.....	1.17	
4T-30308	.....	1.70	
4T-30308D	.....	1.63	
4T-30309	.....	2.23	
4T-30309D	.....	2.11	
4T-30310	.....	2.89	
4T-30310D	.....	2.76	
4T-30311	.....	3.66	
4T-30311D	.....	3.51	
4T-30312D	.....	4.34	
30312U	.....	4.54	
4T-30313D	.....	5.34	
30313U	.....	5.62	
4T-30314D	.....	6.44	
30314U	.....	6.75	
30315DU	.....	7.65	
30315U	.....	7.87	
30316DU	.....	9.06	
30316U	.....	9.72	
30317DU	.....	10.7	
30317U	.....	11.5	
30318DU	.....	12.5	
30318U	.....	13.3	
30319	.....	14.5	
30319DU	.....	14.3	
30320	.....	17.0	
30321	.....	19.7	
30322	.....	23.1	
30324	.....	29.1	
30326	.....	36.8	
30328	.....	45.0	
30330	.....	54.5	
30332	.....	64.4	
30334	.....	76.7	
31320XU	.....	19.1	
31321XU	.....	21.3	
31322XU	.....	39.7	
31324XU	.....	34.0	
31326XU	.....	41.9	
31328XU	.....	50.7	
31330XU	.....	61.1	
32016XU	.....	2.82	
32017XU	.....	2.98	
32018XU	.....	3.95	
32019XU	.....	4.03	
32020XU	.....	4.21	
32021XU	.....	5.34	
32022XU	.....	6.77	
32024XU	.....	7.17	
32026XU	.....	10.9	
32028XU	.....	11.6	
32030XU	.....	14.0	
32032XU	.....	17.2	
32034XU	.....	23.1	
32036XU	.....	32.0	
32038XU	.....	33.3	
32040XU	.....	42.5	
32044XU	.....	55.1	
32048XU	.....	59.1	
32052XU	.....	86.9	
32056XU	.....	92.2	
32060XU	.....	131	
32064XU	.....	138	
4T-32203R	.....	.229	
4T-32205R	.....	.399	
4T-32208	.....	1.23	
4T-32209	.....	1.34	
4T-32210	.....	1.43	
4T-32211	.....	1.93	
32212U	.....	2.60	
32213U	.....	3.48	
32214U	.....	3.70	
32215U	.....	3.84	
32216U	.....	4.81	
32217U	.....	6.06	
32218U	.....	7.69	
32219U	.....	9.48	
32220U	.....	11.3	
32221U	.....	13.8	
32222U	.....	16.4	
32224U	.....	20.0	
32226U	.....	24.7	
32228U	.....	31.1	
32230U	.....	40.1	
32232U	.....	51.8	
32234U	.....	63.3	
32236U	.....	67.7	
32238	.....	73.4	
32240	.....	96.1	
4T-32306	.....	1.29	
4T-32307	.....	1.74	
4T-32308	.....	2.38	
4T-32308C	.....	2.43	
4T-32309	.....	3.22	
4T-32310	.....	4.23	
4T-32311	.....	5.38	
32312U	.....	6.66	
32313U	.....	8.07	
32314U	.....	9.83	
32315U	.....	11.8	
32316U	.....	14.1	
32317U	.....	15.8	
32318U	.....	18.9	
32319U	.....	22.3	
32320U	.....	28.0	
32321U	.....	32.0	
32322	.....	37.3	
32324U	.....	49.4	
32910XU	.....	.421	
32911XU	.....	.604	
32912XU	.....	.648	
32912XU	.....	.694	
32914XU	.....	1.07	
32915XU	.....	1.13	
32916XU	.....	1.19	
32917XU	.....	1.70	
32918XU	.....	1.80	
32919XU	.....	1.88	
32920XU	.....	2.51	
32921XU	.....	2.65	
32922XU	.....	2.73	
32924XU	.....	3.90	
32926XU	.....	5.20	
32928XU	.....	5.53	
32930XU	.....	8.64	
32932XU	.....	9.15	
32934XU	.....	9.70	
32936XU	.....	14.4	
32938XU	.....	14.9	
32940XU	.....	19.8	
32944XU	.....	22.5	
32948XU	.....	24.0	
32952XU	.....	41.4	
32956XU	.....	44.1	
32960XU	.....	69.2	
32964XU	.....	73.0	
32968XU	.....	76.9	
32972XU	.....	80.7	
33016U	.....	3.53	
33017U	.....	3.75	
33018U	.....	4.81	
33019U	.....	5.00	
33020U	.....	5.22	
33021U	.....	6.61	
33022U	.....	8.38	
4T-33113	.....	2.82	
4T-33208	.....	1.60	
4T-33209	.....	1.73	
4T-33210	.....	1.88	
4T-33211	.....	2.54	
33212U	.....	3.42	
33213U	.....	4.37	
33214U	.....	4.63	
33215U	.....	4.85	
33216U	.....	6.44	
33217U	.....	7.89	



Units: **INCHES**
Millimeters

TAPERED ROLLER BEARINGS FOR WHEEL APPLICATIONS



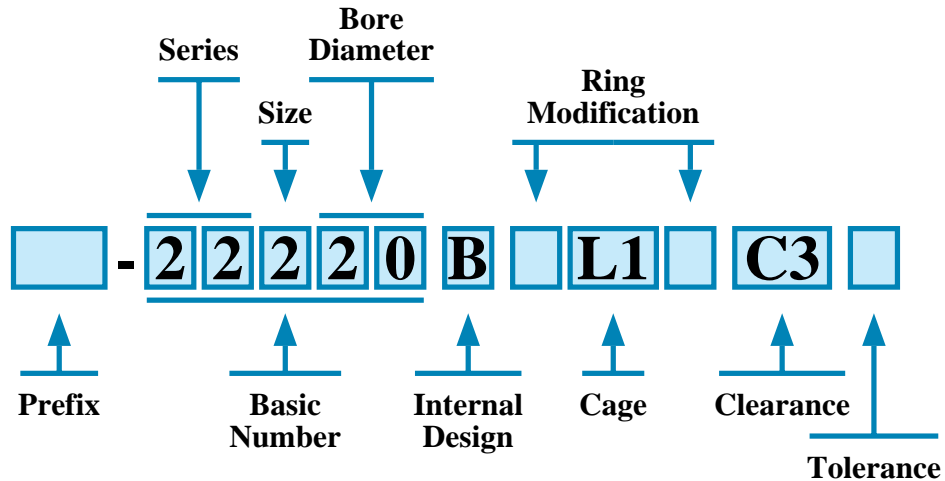
Bearing Number	Bore		O.D.		Seal	Basic Load Ratings (lbs)		Weight (lbs)
	<i>d</i>	<i>D</i>	<i>B</i>	<i>T</i>		<i>Dynamic C</i>	<i>Static C₀</i>	
4T-CRI-0574	.98 25	2.05 52	1.46 37	1.46 37	X	60,500	76,500	.79
4T-CRI-0569	1.06 27	2.05 52	1.73 44	1.69 43		55,000	77,000	.88
4T-CRI-0685	1.26 32	2.28 58	2.56 65	2.24 57		63,500	93,000	1.63
4T-CRI-0797	1.34 34	2.67 67.8	1.69 43	1.57 40		88,000	131,000	1.63
4T-CRI-0760	1.38 35	2.52 64	1.46 37	1.46 37	X	58,500	82,000	1.08
4T-CRI-0778	1.38 35	2.44 62	2.05 52	1.89 48	X	75,000	113,000	1.37
4T-CRI-0820	1.50 38	2.52 64	1.26 32	1.14 29		60,000	90,500	.86
4T-CRI-08A05	1.50 38	2.56 65	2.05 52	1.89 48		60,000	89,500	1.43
4T-CRI-0849	1.50 38	2.99 76	1.69 43	1.57 40		91,000	139,000	1.39
4T-CRI-0868	1.54 39	2.68 68	1.46 37	1.46 37	X	62,000	91,500	1.19
4T-CRI-0826	1.57 40	3.15 80	1.50 38	1.50 38		95,000	137,000	1.94
4T-CRI-0822	1.65 42	2.83 72	1.50 38	1.50 38	X	75,000	105,000	1.30
4T-CRI-0823	1.65 42	2.83 72	1.50 38	1.38 35		82,500	127,000	1.32
4T-CRI-0881	1.65 42	2.83 72	1.50 38	1.38 35		82,500	127,000	1.32
4T-CRI-08A01	1.65 42	2.83 72	1.50 38	1.38 35		75,000	105,000	1.28
4T-CRI-08A02	1.65 42	2.83 72	2.05 52	1.89 48		57,000	80,000	1.70
4T-CRI-0993	1.69 43	2.87 73	1.77 45	1.61 41		75,000	105,000	1.52
4T-CRI-0966	1.77 45	3.54 90	2.13 54	2.01 51		154,000	223,000	3.42
4T-CRI-0992	1.81 46	3.03 77	1.77 45	1.61 41		79,500	124,000	1.76
4T-CRI-0988	1.81 46	3.07 78	1.93 49	1.93 49	X	94,000	148,000	2.07
4T-CRI-0994	1.81 46	3.15 80	1.69 43	1.57 40		94,000	148,000	2.01
4T-CRI-1069	1.97 50	3.31 84	2.13 54	2.13 54	X	107,000	173,000	2.38

**COMPONENT PARTS FOR
TAPERED ROLLER BEARING SETS**

Set Numbers	Cone/Cup
4T-SET 1	4T-LM11749/LM11710
4T-SET 2	4T-LM11949/LM11910
4T-SET 2L	4T-LM11949XJXL/LM11910XL
4T-SET 3	4T-M12649/M12610
4T-SET 4	4T-L44649/L44610
4T-SET 5	4T-LM48548/LM48510
4T-SET 5L	4T-LM48548XJXL/LM48510XL
4T-SET 6	4T-LM67048/LM67010
4T-SET 6L	4T-LM67048XJXL/LM67010XL
4T-SET 7	4T-M201047S/M201011+A *
4T-SET 12	4T-LM12749/LM12710
4T-SET 13	4T-L68149/L68110
4T-SET 14	4T-L44643/L44610
4T-SET 15	4T-L45449/L45410
4T-SET 16	4T-LM12749/LM12711
4T-SET 17	4T-L68149/L68111
4T-SET 18	4T-JL69349/JL69310
4T-SET 19	4T-07100/07196
4T-SET 21	4T-1988/1922
4T-SET 22	4T-JLM506848E/JLM506810DB
4T-SET 23	4T-LM104949E/LM104911DB
4T-SET 24	4T-CR-0659
4T-SET 28	4T-CR-0679PX1
4T-SET 29	4T-LM67045/LM67010
4T-SET 30	4T-CR-0580PX1
4T-SET 31	4T-JL68145/JL68111Z
4T-SET 32	4T-320/28XX1
4T-SET 33	4T-320/32XX1
4T-SET 34	4T-LM12748/LM12710
4T-SET 35	4T-LM501349/LM501310
4T-SET 36	4T-LM603049/LM603012
4T-SET 37	4T-LM603049/LM603011
4T-SET 38	4T-LM104949/LM104911
4T-SET 39	4T-JL26749/JL26710
4T-SET 40	4T-JLM104946/JLM104910Z
4T-SET 42	4T-JLM506849A/JLM506811
4T-SET 47	4T-LM102949/LM102910



* A - Retaining Ring (TKB1001)



1. PREFIX

- TS2: Heat stabilization for up to 320° F (160° C)
- TS3: Heat stabilization for up to 390° F (200° C)
- TS4: Heat stabilization for up to 480° F (250° C)

2. SERIES

- 21: Standard series spherical roller bearings
- 22: Standard series spherical roller bearings
- 23: Standard series spherical roller bearings
- 24: Standard series spherical roller bearings

3. INTERNAL DESIGN

- B: One piece ribbed inner ring, asymmetrical rollers and center guided retainer
- C: Plain inner ring, center floating guide ring (smaller size bearings)
- UA: Inner ring without center guide, asymmetrical rollers, and outer ring center-guided retainer (limited thrust capabilities)
- E: High capacity spherical roller bearings

4. CAGE

- No Symbol: Standard cage
- J: Pressed steel cage
- L1: Machined brass cage
- T2: Nylon cage

5. RING MODIFICATION

- D1: Oil groove and holes
- K: 1:12 tapered bore

6. INTERNAL CLEARANCE

- C1: Radial clearance less than C2
- C2: Radial clearance less than normal
- No Suffix: Normal internal clearance
- C3: Radial clearance greater than normal
- C4: Radial clearance greater than C3
- C5: Radial clearance greater than C4
- CSXX: Special radial clearance; XX is mean value in 0.001 mm units

7. TOLERANCE

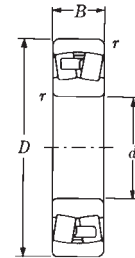
- No Symbol: Class 0 (equivalent to ABEC 1); standard
- PX1: Special tolerance, from 1 onward
- V: Special requirement, from 1 onward
- VS1: Special tolerance for shaker screen bearings (C3 clearance)
- VS2: Special tolerance for shaker screen bearings (C4 clearance)

SPHERICAL ROLLER BEARINGS

Units: INCHES
Millimeters



Bearing No.		Bore	O.D.	Width	Fillet Radius	Basic Load Ratings (lbs)	
<i>213</i>	<i>213K</i>	<i>d</i>	<i>D</i>	<i>B</i>	<i>r</i>	<i>Dynamic C</i>	<i>Static C_o</i>
21308C	21308CK	1.5748 40	3.5433 90	.9055 23	.059 1.5	19,800	20,200
21309C	21309CK	1.7717 45	3.9370 100	.9843 25	.059 1.5	23,000	23,800
21310C	21310CK	1.9685 50	4.3307 110	1.0630 27	.079 2	26,400	28,500
21311	21311K	2.1654 55	4.7244 120	1.1417 29	.118 3	32,500	36,500
21312	21312K	2.3622 60	5.1181 130	1.2205 31	.138 3.5	37,500	43,000
21313	21313K	2.5591 65	5.5118 140	1.2992 33	.138 3.5	43,500	51,000
21314	21314K	2.7559 70	5.9055 150	1.3780 35	.138 3.5	49,500	59,000
21315	21315K	2.9528 75	6.2992 160	1.4567 37	.138 3.5	53,500	64,500
21316	21316K	3.1496 80	6.6929 170	1.5354 39	.138 3.5	58,500	71,000
21317	21317K	3.3465 85	7.0866 180	1.6142 41	.157 4	65,000	80,000
21318	21318K	3.5433 90	7.4803 190	1.6929 43	.157 4	72,000	90,000
21319	21319K	3.7402 95	7.8740 200	1.7717 45	.157 4	75,500	94,500
21320	21320K	3.9370 100	8.4646 215	1.8504 47	.157 4	83,000	105,000



Cylindrical Bore
213



Tapered Bore
213K
Taper 1:12

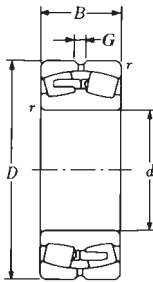
Note: The *d* dimension for the tapered bore is measured from the side of the bearing with the smallest bore dimension.



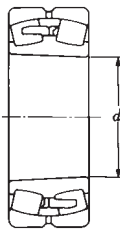
Units: INCHES
Millimeters

In this series, machined brass cages are also available. When placing an order for them, put the suffix L1 on the bearing number.

Example: 22211EL1



Cylindrical Bore
232



Tapered Bore
232K
Taper 1:12

SPHERICAL ROLLER BEARINGS

Bearing No.		Bore	O.D.	Width	Fillet Radius	Oil Groove Width	Basic Load Ratings (lbs)	
222	222K	<i>d</i>	<i>D</i>	<i>B</i>	<i>r</i>	<i>G</i> ②	Dynamic <i>C</i>	Static <i>C_o</i>
22208C	22208CK	1.5748 40	3.1496 80	.9055 23	.043 1.1	—	17,800	19,900
22209C	22209CK	1.7717 45	3.3465 85	.9055 23	.043 1.1	—	18,600	21,400
22210C	22210CK	1.9685 50	3.5433 90	.9055 23	.043 1.1	—	19,300	23,000
22211E	22211EK	2.1654 55	3.9370 100	.9843 25	.098 2.5	—	26,460	32,413
22212E	22212EK	2.3622 60	4.3307 110	1.1024 28	.098 2.5	—	33,736	40,792
22213E	22213EK	2.5591 65	4.7244 120	1.2205 31	.098 2.5	—	39,690	48,951
22214E	22214EK	2.7559 70	4.9213 125	1.2205 31	.098 2.5	—	41,233	52,038
22215E	22215EK	2.9528 75	5.1181 130	1.2205 31	.098 2.5	—	42,777	55,345
22216E	22216EK	3.1496 80	5.5118 140	1.2992 33	.118 3	—	47,848	62,181
22217E	22217EK	3.3465 85	5.9055 150	1.4173 36	.118 3	—	56,448	71,662
22218E	22218EK	3.5433 90	6.2992 160	1.5748 40	.118 3	—	65,709	87,097
22219B	22219BK	3.7402 95	6.6920 170	1.6929 43	.138 3.5	—	65,500	86,500
22220BD1	22220BKD1	3.9370 100	7.0865 180	1.8110 46	.138 3.5	.31 8	70,000	92,500
22222BD1	22222BKD1	4.3307 110	7.8740 200	2.0866 53	.138 3.5	.39 10	92,500	128,000
22224BD1	22224BKD1	4.7244 120	8.4646 215	2.2835 58	.138 3.5	.39 10	109,000	158,000
22226BD1	22226BKD1	5.1181 130	9.0551 230	2.5197 64	.157 4	.39 10	127,000	176,000
22228BD1	22228BKD1	5.5118 140	9.8425 250	2.6772 68	.157 4	.39 10	153,000	218,000
22230BD1	22230BKD1	5.9055 150	10.6299 270	2.8740 73	.157 4	.47 12	174,000	262,000
22232BD1	22232BKD1	6.2992 160	11.4173 290	3.1496 80	.157 4	.47 12	195,000	290,000
22234BD1	22234BKD1	6.6929 170	12.2047 310	3.3858 86	.197 5	.47 12	225,000	340,000
22236B	22236BK	7.0866 180	12.5984 320	3.3858 86	.197 5	.47 12	233,000	360,000
22238B	22238BK	7.4803 190	13.3858 340	3.6220 92	.197 5	.47 12	260,000	410,000
22240B	22240BK	7.8740 200	14.1732 360	3.8583 98	.197 5	.47 12	295,000	450,000
22244B	22244BK	8.6614 220	15.7480 400	4.2520 108	.197 5	.47 12	350,000	545,000
22248B	22248BK	9.4488 240	17.3228 440	4.7244 120	.197 5	.63 16	430,000	680,000
22252B	22252BK	10.2362 260	18.8976 480	5.1181 130	.236 6	.63 16	500,000	805,000
22256B	22256BK	11.0236 280	19.6850 500	5.1181 130	.236 6	.63 16	520,000	855,000
22260B	22260BK	11.8110 300	21.2598 540	5.5118 140	.236 6	.79 20	600,000	975,000
22264B	22264BK	12.5984 320	22.8346 580	5.9055 150	.236 6	.79 20	695,000	1,140,000

① The suffix D1 means the bearing has lubrication holes and an oil groove. However, for bearing numbers 22236B(K) and over, the suffix D1 is not needed as the lubrication holes and oil groove are standard.

② For bearings with a blank G dimension, no lubrication holes and oil groove are provided. These features may be added upon request. (Add suffix D1.)

Note: 'E' type features higher load capacity and high temp. resin cages (40° C to 150° C); EP oil additives could effect cage material.

Note: The *d* dimension for the tapered bore is measured from the side of the bearing with the smallest bore dimension.

SPHERICAL ROLLER BEARINGS

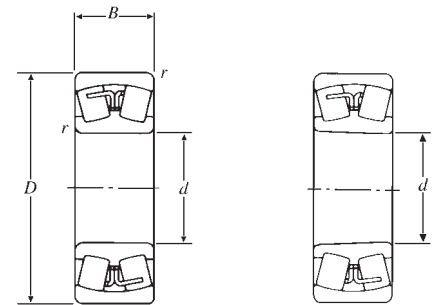
Units: **INCHES**
Millimeters



Bearing No. ❶		Bore <i>d</i>	O.D. <i>D</i>	Width <i>B</i>	Fillet Radius <i>r</i>	Oil Groove Width <i>G</i> ❷	Basic Load Ratings (lbs)	
223	223K						Dynamic <i>C</i>	Static <i>C_o</i>
22308C	22308CK	1.5748 40	3.5433 90	1.2992 33	.059 1.5	—	27,200	28,800
22309C	22309CK	1.7717 45	3.9370 100	1.4173 36	.079 2	—	33,000	37,500
22310C	22310CK	1.9685 50	4.3307 110	1.5748 40	.079 2	—	42,000	47,500
22311B	22311BK	2.1654 55	4.7244 120	1.6929 43	.118 3.0	—	46,000	52,500
22312B	22312BK	2.3622 60	5.1181 130	1.8110 46	.138 3.5	—	53,000	60,500
22313B	22313BK	2.5591 65	5.5118 140	1.8898 48	.138 3.5	—	59,500	71,000
22314B	22314BK	2.7559 70	5.9055 150	2.0079 51	.138 3.5	—	72,500	85,000
22315B	22315BK	2.9528 75	6.2992 160	2.1654 55	.138 3.5	—	74,000	92,000
22316B	22316BK	3.1496 80	6.6929 170	2.2835 58	.138 3.5	—	86,000	105,000
22317BD1	22317BKD1	3.3465 85	7.0866 180	2.3622 60	.157 4.0	.31 8	93,500	115,000
22318BD1	22318BKD1	3.5433 90	7.4803 190	2.5197 64	.157 4.0	.39 10	107,000	132,000
22319BD1	22319BKD1	3.7402 95	7.8740 200	2.6378 67	.157 4.0	.39 10	112,000	138,000
22320BD1	22320BKD1	3.9370 100	8.4646 215	2.8740 73	.157 4.0	.39 10	136,000	169,000
22322BD1	22322BKD1	4.3307 110	9.4488 240	3.1496 80	.157 4.0	.39 10	167,000	209,000
22324BD1	22324BKD1	4.7244 120	10.2362 260	3.3858 86	.157 4.0	.47 12	198,000	252,000
22326BD1	22326BKD1	5.1181 130	11.0236 280	3.6614 93	.197 5.0	.47 12	221,000	282,000
22328BD1	22328BKD1	5.5118 140	11.8110 300	4.0157 102	.197 5.0	.47 12	250,000	320,000
22330B	22330BK	5.9055 150	12.5984 320	4.2520 108	.197 5.0	.47 12	281,000	385,000
22332B	22332BK	6.2992 160	13.3858 340	4.4882 114	.197 5.0	.47 12	315,000	440,000
22334B	22334BK	6.6929 170	14.1732 360	4.7244 120	.197 5.0	.47 12	340,000	480,000
22336B	22336BK	7.0866 180	14.9606 380	4.9606 126	.197 5.0	.47 12	385,000	565,000
22338B	22338BK	7.4803 190	15.7480 400	5.1969 132	.236 6.0	.47 12	415,000	615,000
22340B	22340BK	7.8740 200	16.5354 420	5.4331 138	.236 6.0	.63 16	460,000	680,000
22344B	22344BK	8.6614 220	18.1102 460	5.7087 145	.236 6.0	.63 16	530,000	790,000
22348B	22348BK	9.4488 240	19.6850 500	6.1024 155	.236 6.0	.63 16	605,000	910,000
22352B	22352BK	10.2362 260	21.2598 540	6.4961 165	.315 8.0	.79 20	695,000	1,060,000
22356B	22356BK	11.0236 280	22.8346 580	6.8898 175	.315 8.0	.79 20	790,000	1,200,000
22360B	22360BK	11.8110 300	24.4094 620	7.2835 185	.394 10.0	.79 20	805,000	1,210,000

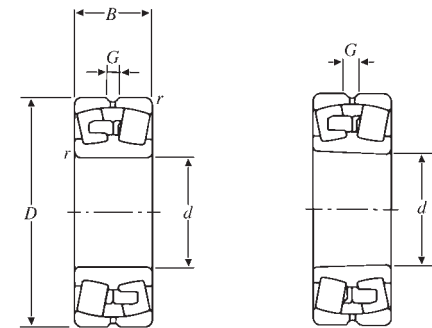
In this series, machined brass cages are also available. When placing an order for them, put the suffix L1 on the bearing number.

Example: 22311BL1



Cylindrical Bore
223B
223C

Tapered Bore
223BK
223CK
Taper 1:12



Cylindrical Bore
223B

Tapered Bore
223BK
Taper 1:12

❶ The suffix D1 means the bearing has lubrication holes and an oil groove. However, for bearing numbers 22330B(K) and over, the suffix D1 is not needed as the lubrication holes and oil groove are standard.

❷ For bearings with a blank G dimension, no lubrication holes and oil groove are provided. These features may be added upon request. (Add suffix D1.)

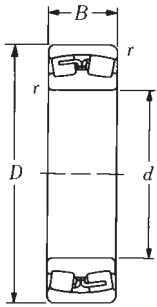
Note: The *d* dimension for the tapered bore is measured from the side of the bearing with the smallest bore dimension.



Units: **INCHES**
Millimeters

In this series, machined brass cages are also available. When placing an order for them, put the suffix L1 on the bearing number.

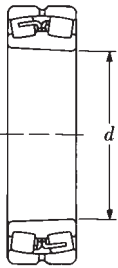
Example: 23024BL1D1



Cylindrical Bore
230



Cylindrical Bore
230



Tapered Bore
230K
Taper 1:12

SPHERICAL ROLLER BEARINGS

Bearing No. ❶		Bore <i>d</i>	O.D. <i>D</i>	Width <i>B</i>	Fillet Radius <i>r</i>	Oil Groove Width <i>G</i>	Basic Load Ratings (lbs)	
230	230K						Dynamic <i>C</i>	Static <i>C₀</i>
23022B	23022BK	4.3307 110	6.6929 170	1.7717 45	.118 3.0	.31 8	63,500	102,000
23024BD1	23024BKD1	4.7244 120	7.0866 180	1.8110 46	.118 3.0	.31 8	66,500	111,000
23026BD1	23026BKD1	5.1181 130	7.8740 200	2.0472 52	.118 3.0	.31 8	84,500	139,000
23028BD1	23028BKD1	5.5118 140	8.2677 210	2.0866 53	.118 3.0	.31 8	90,500	156,000
23030BD1	23030BKD1	5.9055 150	8.8583 225	2.2047 56	.138 3.5	.31 8	100,000	174,000
23032BD1	23032BKD1	6.2992 160	9.4488 240	2.3622 60	.138 3.5	.31 8	114,000	199,000
23034BD1	23034BKD1	6.6929 170	10.2362 260	2.6378 67	.138 3.5	.39 10	141,000	242,000
23036BD1	23036BKD1	7.0866 180	11.0236 280	2.9134 74	.138 3.5	.39 10	166,000	291,000
23038BD1	23038BKD1	7.4803 190	11.4173 290	2.9528 75	.138 3.5	.39 10	170,000	305,000
23040BD1	23040BKD1	7.8740 200	12.2047 310	3.2283 82	.138 3.5	.39 10	205,000	365,000
23044B	23044BK	8.6614 220	13.3858 340	3.5433 90	.157 4.0	.47 12	238,000	430,000
23048B	23048BK	9.4488 240	14.1732 360	3.6220 92	.157 4.0	.47 12	255,000	480,000
23052B	23052BK	10.2362 260	15.7480 400	4.0945 104	.197 5.0	.47 12	320,000	590,000
23056B	23056BK	11.0236 280	16.5354 420	4.1732 106	.197 5.0	.47 12	340,000	655,000
23060B	23060BK	11.8110 300	18.1102 460	4.6457 118	.197 5.0	.47 12	425,000	800,000
23064B	23064BK	12.5984 320	18.8976 480	4.7638 121	.197 5.0	.47 12	440,000	870,000
23068B	23068BK	13.3858 340	20.4724 520	5.2362 133	.236 6.0	.63 16	505,000	990,000
23072B	23072BK	14.1732 360	21.2598 540	5.2756 134	.236 6.0	.63 16	535,000	1,060,000
23076B	23076BK	14.9606 380	22.0472 560	5.3150 135	.236 6.0	.63 16	550,000	1,120,000
23080B	23080BK	15.7480 400	23.6220 600	5.8268 148	.236 6.0	.63 16	655,000	1,320,000
23084B	23084BK	16.5354 420	24.4094 620	5.9055 150	.236 6.0	.63 16	680,000	1,400,000
23088B	23088BK	17.3228 440	25.5906 650	6.1811 157	.315 8.0	.79 20	735,000	1,540,000
23092B	23092BK	18.1102 460	26.7717 680	6.4173 163	.315 8.0	.79 20	805,000	1,680,000
23096B	23096BK	18.8976 480	27.5591 700	6.4961 165	.315 8.0	.79 20	835,000	1,770,000
230/500B	230/500BK	19.6850 500	28.3465 720	6.5748 167	.315 8.0	.79 20	860,000	1,870,000
230/530B	230/530BK	20.8661 530	30.7087 780	7.2835 185	.315 8.0	.79 20	985,000	2,110,000
230/560B	230/560BK	22.0472 560	32.2835 820	7.6772 195	.315 8.0	.79 20	1,080,000	2,360,000
230/600B	230/600BK	23.6220 600	34.2520 870	7.8740 200	.315 8.0	.79 20	1,160,000	2,640,000
230/630B	230/630BK	24.8031 630	36.2205 920	8.3465 212	.394 10.0	.79 20	1,320,000	2,920,000
230/670B	230/670BK	26.3780 670	38.5827 980	9.0551 230	.394 10.0	.79 20	1,470,000	3,300,000
230/710B	230/710BK	27.9528 710	40.5512 1030	9.2913 236	.394 10.0	.94 24	1,610,000	3,650,000
230/750B	230/750BK	29.5276 750	42.9134 1090	9.8425 250	.394 10.0	.94 24	1,840,000	4,100,000

❶ The suffix D1 means the bearing has lubrication holes and an oil groove. However, for bearing numbers 23044B(K) and over, the suffix D1 is not needed as the lubrication holes and the oil groove are standard.

Note: The *d* dimension for the tapered bore is measured from the side of the bearing with the smallest bore dimension.

SPHERICAL ROLLER BEARINGS

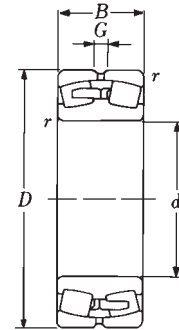
Units: **INCHES**
Millimeters



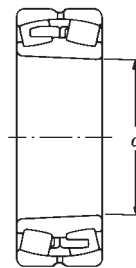
Bearing No. ❶		Bore <i>d</i>	O.D. <i>D</i>	Width <i>B</i>	Fillet Radius <i>r</i>	Oil Groove Width <i>G</i>	Basic Load Ratings (lbs)	
231	231K						Dynamic <i>C</i>	Static <i>C₀</i>
23122BD1	23122BKD1	4.3307 110	7.0866 180	2.2047 56	.118 3.0	.31 8	83,000	131,000
23124BD1	23124BKD1	4.7244 120	7.8740 200	2.4409 62	.118 3.0	.39 10	102,000	158,000
23126BD1	23126BKD1	5.1181 130	8.2677 210	2.5197 64	.118 3.0	.39 10	111,000	179,000
23128BD1	23128BKD1	5.5118 140	8.8583 225	2.6772 68	.138 3.5	.39 10	121,000	201,000
23130BD1	23130BKD1	5.9055 150	9.8425 250	3.1496 80	.138 3.5	.39 10	165,000	268,000
23132BD1	23132BKD1	6.2992 160	10.6299 270	3.3858 86	.138 3.5	.47 12	189,000	310,000
23134BD1	23134BKD1	6.6929 170	11.0236 280	3.4646 88	.138 3.5	.47 12	199,000	335,000
23136BD1	23136BKD1	7.0866 180	11.8110 300	3.7795 96	.157 4.0	.47 12	232,000	390,000
23138B	23138BK	7.4803 190	12.5984 320	4.0945 104	.157 4.0	.47 12	268,000	455,000
23140B	23140BK	7.8740 200	13.3858 340	4.4094 112	.157 4.0	.47 12	305,000	510,000
23144B	23144BK	8.6614 220	14.5669 370	4.7244 120	.197 5.0	.47 12	350,000	610,000
23148B	23148BK	9.4488 240	15.7480 400	5.0394 128	.197 5.0	.47 12	390,000	690,000
23152B	23152BK	10.2362 260	17.3228 440	5.6693 144	.197 5.0	.63 16	470,000	845,000
23156B	23156BK	11.0236 280	18.1102 460	5.7480 146	.236 6.0	.63 16	505,000	930,000
23160B	23160BK	11.8110 300	19.6850 500	6.2992 160	.236 6.0	.63 16	605,000	1,090,000
23164B	23164BK	12.5984 320	21.2598 540	6.9291 176	.236 6.0	.79 20	700,000	1,300,000
23168B	23168BK	13.3858 340	22.8346 580	7.4803 190	.236 6.0	.79 20	810,000	1,480,000
23172B	23172BK	14.1732 360	23.6220 600	7.5591 192	.236 6.0	.79 20	845,000	1,580,000
23176B	23176BK	14.9606 380	24.4094 620	7.6378 194	.236 6.0	.79 20	880,000	1,690,000
23180B	23180BK	15.7480 400	25.5906 650	7.8740 200	.315 8.0	.94 24	940,000	1,810,000
23184B	23184BK	16.5354 420	27.5591 700	8.8189 224	.315 8.0	.94 24	1,150,000	2,200,000
23188B	23188BK	17.3228 440	28.3465 720	8.8976 226	.315 8.0	.94 24	1,170,000	2,260,000
23192B	23192BK	18.1102 460	28.9212 760	9.4488 240	.394 10.0	.94 24	1,290,000	2,560,000
23196B	23196BK	18.8976 480	31.1024 790	9.7638 248	.394 10.0	.94 24	1,410,000	2,810,000
231/500B	231/500BK	19.6850 500	32.6772 830	10.3937 264	.394 10.0	.94 24	1,540,000	3,050,000
231/530B	231/530BK	20.8661 530	34.2520 870	10.7087 272	.394 10.0	.94 24	1,570,000	3,200,000
231/560B	231/560BK	22.0472 560	36.2205 920	11.0236 280	.394 10.0	.94 24	1,720,000	3,500,000
231/600B	231/600BK	23.6220 600	38.5827 980	11.8110 300	.394 10.0	.94 24	2,030,000	4,150,000
231/630B	231/630BK	24.8031 630	40.5512 1030	12.4016 315	.394 10.0	.94 24	2,150,000	4,450,000
231/670B	231/670BK	26.3780 670	42.9134 1090	13.2283 336	.394 10.0	.94 24	2,530,000	5,300,000
231/710B	231/710BK	27.9528 710	45.2756 1150	13.5827 345	.472 12.0	.94 24	2,620,000	5,600,000

In this series, machined brass cages are also available. When placing an order for them, put the suffix L1 on the bearing number.

Example: 23124BL1D1



Cylindrical Bore
231



Tapered Bore
231K
Taper 1:12

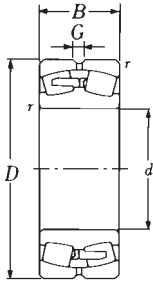
❶ The suffix D1 means the bearing has lubrication holes and an oil groove. However, for bearing numbers 23138B(K) and over, the suffix D1 is not needed as the lubrication holes and oil groove are standard.

Note: The *d* dimension for the tapered bore is measured from the side of the bearing with the smallest bore dimension.

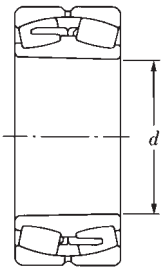


Units: INCHES
Millimeters

Use Suffix L1 for brass cages.
Example: 23218BL1



Cylindrical Bore
232



Tapered Bore
232K
Taper 1:12

SPHERICAL ROLLER BEARINGS								
Bearing No.		Bore	O.D.	Width	Fillet Radius	Oil Groove Width	Basic Load Ratings (lbs)	
232	232K	<i>d</i>	<i>D</i>	<i>B</i>	<i>r</i>	<i>G</i>	Dynamic <i>C</i>	Static <i>C_o</i>
23218B	23218BK	3.5433 90	6.2992 160	2.0630 52.4	.079 2	— —	71,500	103,000
23220B	23220BK	3.9370 100	7.0866 180	3.3740 60.3	.083 2.1	— —	91,000	130,000
23222BD1	23222BKD1	4.3307 110	7.8740 200	2.7480 69.8	.138 3.5	.39 10	115,000	171,000
23224BD1	23224BKD1	4.7244 120	8.4646 215	2.9921 76	.138 3.5	.39 10	132,000	198,000
23226BD1	23226BKD1	5.1181 130	9.0551 230	3.1496 80	.157 4	.39 10	154,000	239,000
23228BD1	23228BKD1	5.5118 140	9.8425 250	3.4646 88	.157 4	.39 10	181,000	285,000
23230BD1	23230BKD1	5.9055 150	10.6299 270	3.7705 96	.157 4	.47 12	210,000	330,000
23232BD1	23232BKD1	6.2992 160	11.4173 290	4.0945 104	.157 4	.47 12	237,000	375,000
23234BD1	23234BKD1	6.6929 170	12.2047 310	4.3307 110	.197 5	.47 12	264,000	440,000
23236B	23236BK	7.0866 180	12.5984 320	4.4094 112	.197 5	.47 12	284,000	465,000
23238B	23238BK	7.4803 190	13.3858 340	4.7244 120	.197 5	.47 12	320,000	530,000
23240B	23240BK	7.8740 200	14.1732 360	5.0394 128	.197 5	.47 12	365,000	595,000
23244B	23244BK	8.6614 220	15.7480 400	5.6693 144	.197 5	.47 12	440,000	730,000
23248B	23248BK	9.4488 240	17.3228 440	6.2992 160	.197 5	.63 16	535,000	900,000
23252B	23252BK	10.2362 260	18.8976 480	6.8504 174	.236 6	.63 16	620,000	1,060,000
23256B	23256BK	11.0236 280	19.6850 500	6.9291 176	.236 6	.63 16	660,000	1,160,000
23260B	23260BK	11.8110 300	21.2598 540	7.5591 192	.236 6	.79 20	775,000	1,350,000
23264B	23264BK	12.5984 320	22.8346 580	8.1890 208	.236 6	.79 20	890,000	1,560,000
23268B	23268BK	13.3858 340	24.4094 620	8.8189 224	.315 8	.79 20	990,000	1,760,000
23272B	23272BK	14.1732 360	25.5906 650	9.1339 232	.315 8	.94 24	1,090,000	1,950,000
23276B	23276BK	14.9606 380	26.7717 680	9.4488 240	.315 8	.94 24	1,170,000	2,170,000
23280B	23280BK	15.7480 400	28.3465 720	10.0787 256	.315 8	.94 24	1,330,000	2,420,000
23284B	23284BK	16.5354 420	29.9213 760	10.7087 272	.394 10	.94 24	1,450,000	2,660,000
23288B	23288BK	17.3228 440	31.1024 790	11.0236 280	.394 10	.94 24	1,530,000	2,850,000
23292B	23292BK	18.1102 460	32.6772 830	11.6535 296	.394 10	.94 24	1,730,000	3,200,000
23296B	23296BK	18.8976 480	34.2520 870	12.2047 310	.394 10	.94 24	1,880,000	3,550,000
232/500B	232/500BK	19.6850 500	36.2205 920	13.2283 336	.394 10	.94 24	2,120,000	4,000,000
232/530B	232/530BK	20.8661 530	38.5826 980	13.9764 355	.394 10	1.65 42	2,330,000	4,450,000
232/560B	232/560BK	22.0472 560	40.5511 1,030	14.3701 365	.472 12	1.65 42	2,490,000	4,750,000
232/600B	232/600BK	23.6220 600	42.9133 1,090	15.2756 388	.472 12	1.65 42	2,740,000	5,350,000
232/630B	232/630BK	24.8031 630	45.2755 1,150	16.2204 412	.472 12	1.65 42	3,100,000	6,050,000
232/670B	232/670BK	26.3779 670	48.0314 1,220	17.2441 438	.472 12	1.65 42	3,600,000	7,150,000
232/710B	232/710BK	27.9527 710	50.3936 1,280	17.7165 450	.472 12	1.65 42	3,650,000	7,300,000
232/750B	232/750BK	29.5275 750	53.5432 1,360	18.7008 475	.472 12	1.65 42	4,100,000	8,250,000

① The suffix D1 means the bearing has lubrication holes and an oil groove. However, for bearing numbers 23236B(K) and over, the suffix D1 is not needed as the lubrication holes and oil groove are standard.

Note: The *d* dimension for the tapered bore is measured from the side of the bearing with the smallest bore dimension.

SPHERICAL ROLLER BEARINGS

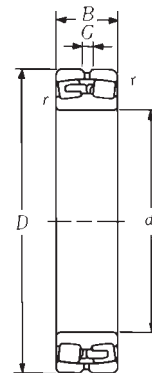
Units: **INCHES**
Millimeters



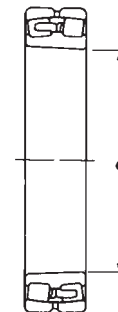
Bearing ① No.		Bore	O.D.	Width	Fillet Radius	Oil Groove Width	Basic Load Ratings (lbs)	
239	239K	<i>d</i>	<i>D</i>	<i>B</i>	<i>r</i>	<i>G</i>	Dynamic <i>C</i>	Static <i>C₀</i>
23926	23926KD1	5.1181 130	7.0866 180	1.4567 37	.098 2.5	.28 7	48,000	85,000
23932D1	23932KD1	6.2992 160	8.6614 220	1.7717 45	.118 3	.31 8	72,500	138,000
23934D1	23934KD1	6.6929 170	9.0551 230	1.7717 45	.118 3	.31 8	74,500	146,000
23936D1	23936KD1	7.0866 180	9.8425 250	2.0472 52	.118 3	.31 8	99,500	188,000
23938D1	23938KD1	7.4803 190	10.2362 260	2.0472 52	.118 3	.39 10	103,000	200,000
23940D1	23940KD1	7.8740 200	11.0236 280	2.3622 60	.138 3.5	.39 10	123,000	247,000
23944D1	23944KD1	8.6614 220	11.8110 300	2.3622 60	.138 3.5	.39 10	127,000	263,000
23948	23948K	9.4488 240	12.5984 320	2.3622 60	.138 3.5	.47 12	127,000	267,000
23952	23952K	10.2362 260	14.1732 360	2.9528 75	.138 3.5	.47 12	171,000	355,000
23956	23956K	11.0236 280	14.9606 380	2.9528 75	.138 3.5	.47 12	187,000	395,000
23960	23960K	11.8110 300	16.5354 420	3.5433 90	.157 4	.47 12	249,000	520,000
23964	23964K	12.5984 320	17.3228 440	3.5433 90	.157 4	.47 12	257,000	555,000
23968	23968K	13.3858 340	18.1102 460	3.5433 90	.157 4	.47 12	274,000	595,000
23972	23972K	14.1732 360	18.8976 480	3.5433 90	.157 4	.47 12	298,000	660,000
23976	23976K	14.9606 380	20.4724 520	4.1732 106	.197 5	.63 16	350,000	795,000
23980	23980K	15.7480 400	21.2598 540	4.1732 106	.197 5	.63 16	355,000	820,000
23984	23984K	16.5354 420	22.0472 560	4.1732 106	.197 5	.63 16	365,000	865,000
23988	23988K	17.3228 440	23.6220 600	4.6457 118	.197 5	.63 16	455,000	1,050,000
23992	23992K	18.1102 460	24.4094 620	4.6457 118	.197 5	.63 16	470,000	1,110,000
23996	23996K	18.8976 480	25.5906 650	5.0394 128	.236 6	.79 20	525,000	1,240,000
239/500	239/500K	19.6850 500	26.3780 670	5.0394 128	.236 6	.79 20	535,000	1,260,000
239/530	239/530K	20.8661 530	27.5928 710	5.3543 136	.236 6	.79 20	595,000	1,450,000
239/560	239/560K	22.0472 560	29.5276 750	5.5118 140	.236 6	.79 20	635,000	1,500,000
239/600	239/600K	23.6220 600	31.4961 800	5.9055 150	.236 6	.79 20	710,000	1,750,000
239/630	239/630K	24.8031 630	33.4646 850	6.4961 165	.315 8	.79 20	830,000	2,080,000
239/670	239/670K	26.3780 670	35.4331 900	6.6929 170	.315 8	.79 20	925,000	2,330,000
239/710	239/710K	27.9528 710	37.4016 950	7.0866 180	.315 8	.79 20	995,000	2,580,000
239/750	239/750K	29.5276 750	39.3701 1000	7.2835 185	.315 8	.79 20	1,130,000	2,930,000
239/800	239/800K	31.4961 800	41.7323 1060	7.6772 195	.315 8	.94 24	1,220,000	3,100,000
239/850	239/850K	33.4646 850	44.0945 1120	7.8740 200	.315 8	.94 24	1,310,000	3,400,000
239/900	239/900K	35.4331 900	46.4567 1180	8.1102 206	.315 8	.94 24	1,490,000	3,900,000

In this series, machined brass cages are also available. When placing an order for them, put the suffix L1 on the bearing number.

Example: 23932L1D1



Cylindrical Bore
239



Tapered Bore
239K
Taper 1:12

① The suffix D1 means the bearing has lubrication holes and an oil groove. However, for bearing numbers 23948(K) and over, the suffix D1 is not needed as the lubrication holes and oil groove are standard.

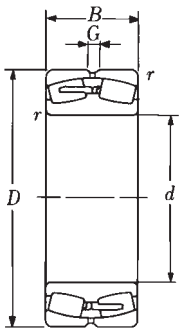
Note: The *d* dimension for the tapered bore is measured from the side of the bearing with the smallest bore dimension.



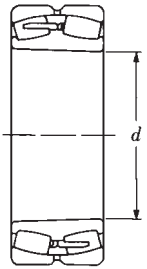
Units: **INCHES**
Millimeters

Bearing Numbers 24048B(K30) and under have machined brass cages. Machined brass cage are also available for bearing numbers 24052B(K30) and over. When placing an order for them, put the suffix L1 on the bearing number.

Example: 24052BL1



Cylindrical Bore
240



Tapered Bore
240K30
Taper 1:30

SPHERICAL ROLLER BEARINGS								
Bearing No. ❶		Bore <i>d</i>	O.D. <i>D</i>	Width <i>B</i>	Fillet Radius <i>r</i>	Oil Groove Width <i>G</i>	Basic Load Ratings (lbs)	
240	240K30						Dynamic <i>C</i>	Static <i>C_o</i>
24024BD1	24024BK30D1	4.7244 120	7.0866 180	2.3622 60	.118 3.0	.31 8	87,000	151,000
24026BD1	24026BK30D1	5.1181 130	7.8740 200	2.7165 69	.118 3.0	.31 8	114,000	201,000
24028BD1	24028BK30D1	5.5118 140	8.2677 210	2.7165 69	.118 3.0	.31 8	115,000	213,000
24030BD1	24030BK30D1	5.9055 150	8.8583 225	2.9528 75	.138 3.5	.31 8	131,000	238,000
24032BD1	24032BK30D1	6.2992 160	9.4488 240	3.1496 80	.138 3.5	.31 8	146,000	269,000
24034BD1	24034BK30D1	6.6929 170	10.2362 260	3.5433 90	.138 3.5	.39 10	180,000	330,000
24036BD1	24036BK30D1	7.0866 180	11.0236 280	3.9370 100	.138 3.5	.39 10	219,000	405,000
24038BD1	24038BK30D1	7.4803 190	11.4173 290	3.9370 100	.138 3.5	.39 10	224,000	415,000
24040BD1	24040BK30D1	7.8740 200	12.2047 310	4.2913 109	.138 3.5	.39 10	264,000	490,000
24044B	24044BK30	8.6614 220	13.3858 340	4.6457 118	.157 4.0	.47 12	305,000	580,000
24048B	24048BK30	9.4488 240	14.1732 360	4.6457 118	.157 4.0	.47 12	320,000	630,000
24052B	24052BK30	10.2362 260	15.7480 400	5.5118 140	.197 5.0	.47 12	410,000	800,000
24056B	24056BK30	11.0236 280	16.5354 420	5.5118 140	.197 5.0	.47 12	440,000	890,000
24060B	24060BK30	11.8110 300	18.1102 460	6.2992 160	.197 5.0	.47 12	550,000	1,120,000
24064B	24064BK30	12.5984 320	18.8976 480	6.2992 160	.197 5.0	.47 12	565,000	1,170,000
24068B	24068BK30	13.3858 340	20.4724 520	7.0866 180	.236 6.0	.63 16	675,000	1,390,000
24072B	24072BK30	14.1732 360	21.2598 540	7.0866 180	.236 6.0	.63 16	690,000	1,450,000
24076B	24076BK30	14.9606 380	22.0472 560	7.0866 180	.236 6.0	.63 16	715,000	1,560,000
24080B	24080BK30	15.7480 400	23.6220 600	7.8740 200	.236 6.0	.63 16	860,000	1,890,000
24084B	24084BK30	16.5354 420	24.4094 620	7.8740 200	.236 6.0	.63 16	870,000	1,900,000
24088B	24088BK30	17.3228 440	25.5906 650	8.3464 212	.315 8.0	.79 20	965,000	2,120,000
24092B	24092BK30	18.1102 460	26.7717 680	8.5827 218	.315 8.0	.79 20	1,030,000	2,280,000
24096B	24096BK30	18.8976 480	27.5591 700	8.5827 218	.315 8.0	.79 20	1,060,000	2,400,000
240/500B	240/500BK30	19.6850 500	28.3465 720	8.5827 218	.315 8.0	.79 20	1,090,000	2,500,000

❶ The suffix D1 means the bearing has lubrication holes and an oil groove. However, for bearing numbers 24044B(K) and over, the suffix D1 is not needed as the lubrication holes and oil groove are standard.

Note: The *d* dimension for the tapered bore is measured from the side of the bearing with the smallest bore dimension.

SPHERICAL ROLLER BEARINGS

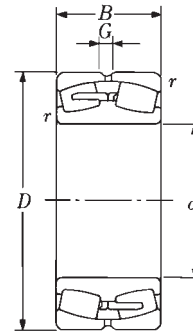
Units: INCHES
Millimeters



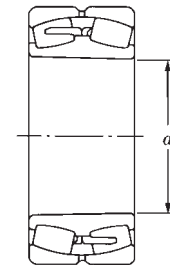
Bearing ❶ No.		Bore	O.D.	Width	Fillet Radius	Oil Groove Width	Basic Load Ratings (lbs)	
241	241K30	<i>d</i>	<i>D</i>	<i>B</i>	<i>r</i>	<i>G</i>	Dynamic <i>C</i>	Static <i>C_o</i>
24122BD1	24122BK30D1	4.3307 110	7.0866 180	2.7165 69	.118 3	.31 8	101,000	170,000
24124BD1	24124BK30D1	4.7244 120	7.8740 200	3.1496 80	.118 3	.31 8	129,000	213,000
24126BD1	24126BK30D1	5.1181 130	8.2677 210	3.1496 80	.118 3	.31 8	132,000	224,000
24128BD1	24128BK30D1	5.5118 140	8.8583 225	3.3465 85	.138 3.5	.31 8	151,000	257,000
24130BD1	24130BK30D1	5.9055 150	9.8425 250	3.9370 100	.138 3.5	.31 8	201,000	350,000
24132BD1	24132BK30D1	6.2992 160	10.6299 270	4.2913 109	.138 3.5	.39 10	234,000	400,000
24134BD1	24134BK30D1	6.6929 170	11.0236 280	4.2913 109	.138 3.5	.39 10	242,000	420,000
24136BD1	24136BK30D1	7.0866 180	11.8110 300	4.6457 118	.157 4	.39 10	280,000	495,000
24138B	24138BK30	7.4803 190	12.5984 320	5.0394 128	.157 4	.47 12	320,000	555,000
24140B	24140BK30	7.8740 200	13.3858 340	5.5118 140	.157 4	.47 12	365,000	650,000
24144B	24144BK30	8.6614 220	14.5669 370	5.9055 150	.197 5	.47 12	425,000	760,000
24148B	24148BK30	9.4488 240	15.7480 400	6.2992 160	.197 5	.47 12	475,000	860,000
24152B	24152BK30	10.2362 260	17.3228 440	7.0866 180	.197 5	.47 12	555,000	1,010,000
24156B	24156BK30	11.0236 280	18.1102 460	7.0866 180	.236 6	.47 12	605,000	1,150,000
24160B	24160BK30	11.8110 300	19.6850 500	7.8740 200	.236 6	.47 12	745,000	1,430,000
24164B	24164BK30	12.5984 320	21.2598 540	8.5827 218	.236 6	.63 16	865,000	1,640,000
24168B	24168BK30	13.3858 340	22.8346 580	9.5669 243	.236 6	.63 16	1,030,000	2,010,000
24172B	24172BK30	14.1732 360	23.6220 600	9.5669 243	.236 6	.63 16	1,040,000	2,090,000
24176B	24176BK30	14.9606 380	24.4094 620	9.5669 243	.236 6	.63 16	1,070,000	2,130,000
24180B	24180BK30	15.7480 400	25.5906 650	9.8425 250	.315 8	.79 20	1,140,000	2,330,000
24184B	24184BK30	16.5354 420	27.5591 700	11.0236 280	.315 8	.79 20	1,380,000	2,740,000
24188B	24188BK30	17.3228 440	28.3465 720	11.0236 280	.315 8	.79 20	1,450,000	2,940,000
24192B	24192BK30	18.1102 460	29.9213 760	11.8110 300	.394 10	.79 20	1,600,000	3,250,000
24196B	24196BK30	18.8976 480	31.1024 790	12.1260 308	.394 10	.79 20	1,690,000	3,500,000
241/500B	241/500BK30	19.6850 500	32.6772 830	12.7953 325	.394 10	.79 20	1,830,000	3,800,000

Bearing numbers 24144B(K30) and under have machined brass cages. Machined brass cages are also available for bearing numbers 24148B(K30) and over. When placing an order for them, put the suffix L1 on the bearing number.

Example: 24148BL1



Cylindrical Bore
241



Tapered Bore
241K30
Taper 1:30

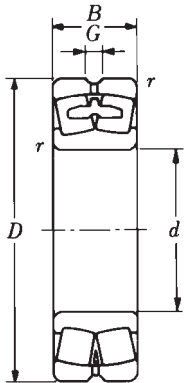
❶ The suffix D1 means the bearing has lubrication holes and an oil groove. However, for bearing numbers 24138B(K30) and over, the suffix D1 is not needed as the lubrication holes and oil groove are standard.

Note: The *d* dimension for the tapered bore is measured from the side of the bearing with the smallest bore dimension.



Units: **INCHES**
Millimeters

The cage is made of machined brass.



223

Bearing No. ❶	Bore d	O.D. D	Width B	Fillet Radius r	Oil Groove Width G	Basic Load Ratings (lbs)	
						Dynamic C	Static C_o
22314UAVS1	2.7559 70	5.9055 150	2.0079 51	.138 3.5	.31 8	77,000	92,500
22315UAVS1	2.9528 75	6.2992 160	2.1654 55	.138 3.5	.31 8	86,500	112,000
22316UAVS1	3.1496 80	6.6929 170	2.2835 58	.138 3.5	.31 8	94,500	118,000
22317UAVS1	3.3465 85	7.0866 180	2.3622 60	.157 4.0	.31 8	102,000	128,000
22318UAVS1	3.5433 90	7.4803 190	2.5197 64	.157 4.0	.39 10	116,000	146,000
22319UAVS1	3.7402 95	7.8740 200	2.6378 67	.157 4.0	.39 10	127,000	162,000
22320UAVS1	3.9370 100	8.4646 215	2.8740 73	.157 4.0	.39 10	151,000	194,000
22322UAVS1	4.3307 110	9.4488 240	3.1496 80	.157 4.0	.39 10	188,000	244,000
22324UAVS1	4.7244 120	10.2362 260	3.3858 86	.157 4.0	.47 12	212,000	276,000
22326UAVS1	5.1181 130	11.0236 280	3.6614 93	.197 5.0	.47 12	246,000	325,000
22328UAVS1	5.5118 140	11.8110 300	4.0157 102	.197 5.0	.47 12	287,000	385,000
22330UAVS1	5.9055 150	12.5984 320	4.2520 108	.197 5.0	.47 12	320,000	460,000
22332UAVS1	6.2992 160	13.3858 340	4.4882 114	.197 5.0	.47 12	345,000	495,000
22334UAVS1	6.6929 170	14.1732 360	4.7244 120	.197 5.0	.47 12	385,000	565,000
22336UAVS1	7.0866 180	14.9606 380	4.9606 126	.197 5.0	.47 12	435,000	655,000
22338UAVS1	7.4803 190	15.7480 400	5.1969 132	.236 6.0	.47 12	470,000	720,000
22340UAVS1	7.8740 200	16.5354 420	5.4331 138	.236 6.0	.63 16	500,000	765,000

❶ The suffix VS1 means the bearing has controlled O.D., bore and radial clearance for shaker screen application.

Note: Lubrication holes and oil groove provided as standard; suffix D1 not needed.

Bearing Series → 213 SERIES

Bearing Number

21308C..... 1.55

Weight (lbs)



SPHERICAL ROLLER BEARINGS

213 SERIES		230 SERIES	
21308C.....	1.55	21308CK.....	1.53
21309C.....	2.04	21309CK.....	2.01
21310C.....	2.67	21310CK.....	2.62
21311.....	3.77	21311K.....	3.73
21312.....	4.63	21312K.....	4.56
21313.....	5.62	21313K.....	5.53
21314.....	7.01	21314K.....	6.92
21315.....	8.40	21315K.....	8.29
21316.....	9.99	21316K.....	9.85
21317.....	11.8	21317K.....	11.6
21318.....	13.9	21318K.....	13.7
21319.....	15.7	21319K.....	15.4
21320.....	19.6	21320K.....	19.4
222 SERIES		230 SERIES	
22208C.....	1.16	23022B.....	8.18
22209C.....	1.55	23024BD1.....	8.93
22210C.....	2.15	23026BD1.....	13.0
22211B.....	1.87	23028BD1.....	14.0
22212B.....	2.54	23030BD1.....	17.0
22213B.....	3.31	23032BD1.....	20.8
22214B.....	3.42	23034BD1.....	28.0
22215B.....	3.64	23036BD1.....	36.8
22216B.....	4.74	23038BD1.....	39.0
22217B.....	5.86	23040BD1.....	50.0
22218B.....	7.72	23044B.....	65.9
22219B.....	9.04	23048B.....	73.6
22220BD1.....	10.9	23052B.....	107
22222BD1.....	15.9	23056B.....	116
22224BD1.....	20.1	23060B.....	160
22226BD1.....	24.7	23064B.....	172
22228BD1.....	30.9	23068B.....	229
22230BD1.....	39.9	23072B.....	243
22232BD1.....	50.0	23076B.....	254
22234BD1.....	61.7	23080B.....	328
22236B.....	64.6	23084B.....	346
22238B.....	80.7	23088B.....	399
22240B.....	97.0	23092B.....	454
22244B.....	133	23096B.....	478
22248B.....	180	230500B.....	498
22252B.....	234	230530B.....	675
22256B.....	247	230560B.....	778
22260B.....	311	230600B.....	882
223 SERIES		230630B.....	1060
22308C.....	2.15	230670B.....	1310
22309C.....	2.93	230710B.....	1460
22310C.....	3.95	230750B.....	1740
22311B.....	5.07	231 SERIES	
22312B.....	6.39	23122BD1.....	11.9
22313B.....	7.61	23124BD1.....	17.0
22314B.....	9.30	23126BD1.....	18.7
22315B.....	11.6	23128BD1.....	22.5
22316B.....	13.3	23130BD1.....	34.4
22317BD1.....	15.7	23132BD1.....	43.7
22318BD1.....	18.4	23134BD1.....	47.4
22319BD1.....	21.5	23136BD1.....	55.3
22320BD1.....	27.3	23138B.....	77.8
22322BD1.....	37.7	23140B.....	95.5
22324BD1.....	47.4	23144B.....	118
22326BD1.....	59.1	23148B.....	145
22328BD1.....	74.5	23152B.....	202
22330B.....	94.1	23156B.....	215
22332B.....	112	23160B.....	289
22334B.....	132	23164B.....	368
22336B.....	154	23168B.....	463
22338B.....	179	23172B.....	489
22340B.....	205	23176B.....	518
22344B.....	258	23180B.....	582
22348B.....	326	23184B.....	780
22352B.....	403	23188B.....	816
22356B.....	494	23192B.....	977
22360B.....	595	23196B.....	1080
		231500B.....	1290
		231530B.....	1440
		231560B.....	1660
		231600B.....	2000
		231630B.....	2310
		231670B.....	2760
		231710B.....	3130
		23122BK.....	7.89
		23024BKD1.....	8.60
		23026BKD1.....	12.5
		23028BKD1.....	13.5
		23030BKD1.....	16.4
		23032BKD1.....	20.0
		23034BKD1.....	27.1
		23036BKD1.....	35.5
		23038BKD1.....	37.7
		23040BKD1.....	48.3
		23044BK.....	63.5
		23048BK.....	71.0
		23052BK.....	103
		23056BK.....	112
		23060BK.....	155
		23064BK.....	166
		23068BK.....	220
		23072BK.....	234
		23076BK.....	245
		23080BK.....	317
		23084BK.....	335
		23088BK.....	386
		23096BK.....	441
		23096BK.....	461
		230500BK.....	481
		230530BK.....	650
		230560BK.....	750
		230600BK.....	851
		230630BK.....	1010
		230670BK.....	1260
		230710BK.....	1410
		230750BK.....	1680
		23122BKD1.....	11.5
		23124BKD1.....	16.4
		23126BKD1.....	18.1
		23128BKD1.....	21.7
		23130BKD1.....	33.3
		23132BKD1.....	42.3
		23134BKD1.....	45.9
		23136BKD1.....	53.4
		23138BK.....	75.4
		23140BK.....	92.6
		23144BK.....	114
		23148BK.....	141
		23152BK.....	195
		23156BK.....	209
		23160BK.....	280
		23164BK.....	357
		23168BK.....	450
		23172BK.....	474
		23176BK.....	503
		23180BK.....	564
		23184BK.....	756
		23188BK.....	789
		23192BK.....	946
		23196BK.....	1050
		231500BK.....	1250
		231530BK.....	1400
		231560BK.....	1610
		231600BK.....	1940
		231630BK.....	2250
		231670BK.....	2670
		231710BK.....	3040



Bearing Series → **213 SERIES**

← Bearing Number

21308C..... 1.55

← Weight (lbs)

SPHERICAL ROLLER BEARINGS

232 SERIES

23218B.....	9.81	23218BK.....	9.52
23220B.....	14.3	23220BK.....	13.8
23222BD1.....	21.4	23222BKD1.....	20.8
23224BD1.....	26.7	232244BKD1.....	25.8
23226BD1.....	31.5	23226BKD1.....	30.6
23228BD1.....	41.4	23228BKD1.....	40.1
23230BD1.....	53.1	23230BKD1.....	51.6
23232BD1.....	66.1	23232BKD1.....	64.2
23234BD1.....	81.1	23234BKD1.....	78.7
23236B.....	86.0	23236BK.....	83.3
23238B.....	105	23238BK.....	102
23240B.....	126	23240BK.....	122
23244B.....	176	23244BK.....	171
23248B.....	238	23248BK.....	231
23252B.....	311	23252BK.....	302
23256B.....	331	23256BK.....	320
23260B.....	425	23260BK.....	412
23264B.....	536	23264BK.....	520
23268B.....	661	23268BK.....	642
23272B.....	747	23272BK.....	725
23276B.....	838	23276BK.....	814
23280B.....	1010	23280BK.....	977
23284B.....	1200	23284BK.....	1160
23288B.....	1320	23288BK.....	1280
23292B.....	1550	23292BK.....	1510
23296B.....	1790	23296BK.....	1740
232/500B.....	2200	232/500BK.....	2140
232/530B.....	2650	232/530BK.....	2580
232/560B.....	3000	232/560BK.....	2910
232/600B.....	3400	232/600BK.....	3280
232/630B.....	4190	232/630BK.....	4060
232/670B.....	5000	232/670BK.....	4850
232/710B.....	5600	232/710BK.....	5450
232/750B.....	6720	232/750BK.....	6530

239 SERIES

23932D1.....	12.1	23932KD1.....	11.8
23934D1.....	12.8	23934KD1.....	12.4
23936D1.....	18.1	23936KD1.....	17.5
23938D1.....	19.0	23938KD1.....	18.4
23940D1.....	26.7	23940KD1.....	25.8
23944D1.....	28.9	23944KD1.....	28.0
23948.....	30.9	23948K.....	30.0
23952.....	52.9	23952K.....	51.4
23956.....	58.2	23956K.....	56.4
23960.....	88.2	23960K.....	85.3
23964.....	94.8	23964K.....	91.9
23968.....	98.5	23968K.....	95.5
23972.....	104	23972K.....	101
23976.....	154	23976K.....	149
23980.....	161	23980K.....	156
23984.....	168	23984K.....	163
23988.....	223	23988K.....	216
23992.....	236	23992K.....	229
23996.....	271	23996K.....	262
239/500.....	289	239/500K.....	280
239/530.....	346	239/530K.....	335
239/560.....	401	239/560K.....	388
239/600.....	481	239/600K.....	465
239/630.....	611	239/630K.....	591
239/670.....	699	239/670K.....	677
239/710.....	827	239/710K.....	800
239/750.....	908	239/750K.....	880
239/800.....	1070	239/800K.....	1040
239/850.....	1210	239/850K.....	1170
239/900.....	1370	239/900K.....	1330

240 SERIES

24024BD1.....	12.1	24024BK30D1.....	11.9
24026BD1.....	17.8	24026BK30D1.....	17.5
24028BD1.....	18.9	24028BK30D1.....	18.6
24030BD1.....	23.6	24030BK30D1.....	23.1
24032BD1.....	28.7	24032BK30D1.....	28.2
24034BD1.....	39.0	24034BK30D1.....	38.4
24036BD1.....	51.4	24036BK30D1.....	50.5
24038BD1.....	53.6	24038BK30D1.....	52.7
24040BD1.....	68.3	24040BK30D1.....	67.2
24044B.....	88.6	24044BK30.....	87.3
24048B.....	94.8	24048BK30.....	93.3
24052B.....	144	24052BK30.....	141
24056B.....	152	24056BK30.....	150
24060B.....	216	24060BK30.....	213
24064B.....	227	24064BK30.....	223
24068B.....	309	24068BK30.....	304
24072B.....	324	24072BK30.....	320
24076B.....	337	24076BK30.....	331
24080B.....	445	24080BK30.....	441
24084B.....	463	24084BK30.....	456
24088B.....	540	24088BK30.....	531
24092B.....	608	24092BK30.....	600
24096B.....	628	24096BK30.....	617
240/500B.....	650	240/500BK30.....	639

241 SERIES

24122BD1.....	15.6	24122BK30D1.....	15.3
24124BD1.....	22.7	24124BK30D1.....	22.3
24126BD1.....	24.3	24126BK30D1.....	23.8
24128BD1.....	29.3	24128BK30D1.....	28.9
24130BD1.....	44.5	24130BK30D1.....	44.1
24132BD1.....	57.3	24132BK30D1.....	56.4
24134BD1.....	60.0	24134BK30D1.....	59.1
24136BD1.....	75.6	24136BK30D1.....	74.5
24138B.....	94.4	24138BK30.....	93.0
24140B.....	118	24140BK30.....	116
24144B.....	148	24144BK30.....	146
24148B.....	181	24148BK30.....	178
24152B.....	251	24152BK30.....	247
24156B.....	265	24156BK30.....	260
24160B.....	355	24160BK30.....	351
24164B.....	567	24164BK30.....	450
24168B.....	593	24168BK30.....	584
24172B.....	619	24172BK30.....	611
24176B.....	644	24176BK30.....	633
24180B.....	725	24180BK30.....	714
24184B.....	970	24184BK30.....	955
24188B.....	1010	24188BK30.....	990
24192B.....	1210	24192BK30.....	1190
24196B.....	1340	24196BK30.....	1320
241/500B.....	1580	241/500BK30.....	1550

22314UAVS1 SERIES

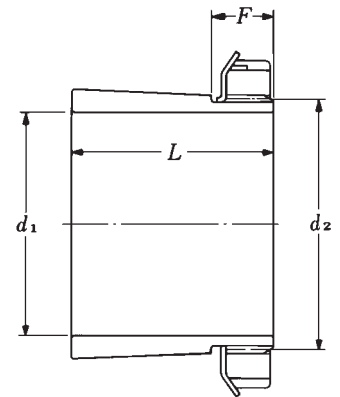
22314UAVS1.....	9.48
22315UAVS1.....	11.6
22316UAVS1.....	13.8
22317UAVS1.....	16.0
22318UAVS1.....	19.1
22319UAVS1.....	21.9
22320UAVS1.....	28.4
22322UAVS1.....	39.9
22324UAVS1.....	48.1
22326UAVS1.....	62.4
22328UAVS1.....	75.9
22330UAVS1.....	91.1
22332UAVS1.....	108
22334UAVS1.....	132
22336UAVS1.....	149
22338UAVS1.....	174
22340UAVS1.....	199

ADAPTERS FOR BEARINGS SERIES 12K,13K,222K,232K,223K

Units: INCHES



Brg. Bore No.	Complete Adapter		Adapter Sleeve No.	Lock-Nut No.	Lock-Washer No.	Nominal Sleeve Dimensions (Inch)				
	Number	Weight (lbs)				Shaft (Bore) Dia. d_1	L	F	Thread Pitch Dia. d_2	Threads ^① Per inch
05	SNW 05	.22	S 05	N 05	W 05	$\frac{3}{8}$	1.269	.560	.9470	32
06	SNW 06	.28	S 06	N 06	W 06	$\frac{15}{16}$	1.353	.622	1.1339	18
07	SNW 07	.35	S 07	N 07	W 07	$1 \frac{3}{16}$	1.459	.654	1.3369	18
08	SNW 08	.41	S 08	N 08	W 08	$1 \frac{5}{16}$	1.504	.662	1.5237	18
09	SNW 09	.62	S 09	N 09	W 09	$1 \frac{7}{16}$	1.584	.662	1.7277	18
10	SNW 10	.73	S 10	N 10	W 10	$1 \frac{11}{16}$	1.765	.724	1.9277	18
11	SNW 11	.80	S 11	N 11	W 11	$1 \frac{15}{16}$	1.845	.729	2.1174	18
12	SNW 12	1.08	S 12	N 12	W 12	$2 \frac{1}{16}$	1.989	.760	2.3204	18
13	SNW 13	1.39	S 13	N 13	W 13	$2 \frac{3}{16}$	2.100	.792	2.5084	18
14	SNW 14	1.90	S 14	N 14	W 14	$2 \frac{5}{16}$	2.274	.792	2.7114	18
15	SNW 15	2.26	S 15	AN 15A	W 15	$2 \frac{7}{16}$	2.296	.895	2.8752	12
16	SNW 16	2.40	S 16	AN 16A	W 16	$2 \frac{11}{16}$	2.376	.895	3.0790	12
17	SNW 17	2.92	S 17	AN 17A	W 17	$2 \frac{15}{16}$	2.486	.926	3.2812	12
18	SNW 18	3.06	S 18	AN 18A	W 18	$3 \frac{3}{16}$	2.646	1.010	3.4682	12
19	SNW 19	3.72	S 19	AN 19A	W 19	$3 \frac{5}{16}$	2.760	1.041	3.6712	12
20	SNW 20	4.38	S 20	AN 20A	W 20	$3 \frac{7}{16}$	2.869	1.073	3.8592	12
21	SNW 21	4.53	S 21	AN 21A	W 21	$3 \frac{11}{16}$	2.987	1.073	4.0618	12
22	SNW 22	5.00	S 22	AN 22A	W 22	$3 \frac{15}{16}$	3.206	1.135	4.2648	12
24	SNW 24	6.66	S 24	AN 24A	W 24	$4 \frac{3}{16}$	3.466	1.166	4.6558	12
26	SNW 26	9.70	S 26	AN 26A	W 26	$4 \frac{7}{16}$	3.762	1.229	5.0458	12
28	SNW 28	10.3	S 28	AN 28A	W 28	$4 \frac{11}{16}$	3.981	1.291	5.4368	12
30	SNW 30	15.8	S 30	AN 30A	W 30	$5 \frac{3}{16}$	4.241	1.354	5.8278	12
32	SNW 32	15.6	S 32	AN 32A	W 32	$5 \frac{7}{16}$	4.578	1.510	6.1953	8
34	SNW 34	19.4	S 34	AN 34A	W 34	$5 \frac{15}{16}$	4.847	1.541	6.5703	8
36	SNW 36	20.5	S 36	AN 36A	W 36	$6 \frac{7}{16}$	5.038	1.573	6.9773	8
38	SNW 38	23.4	S 38	AN 38A	W 38	$6 \frac{15}{16}$	5.261	1.604	7.3833	8
40	SNW 40	30.7	S 40	AN 40A	W 40	$7 \frac{3}{16}$	5.484	1.666	7.7571	8
44	SNW 44	32.3	S 44	N 44	W 44	$7 \frac{15}{16}$	5.901	1.698	8.5378	8
08	SNW 108	.62	S 108	N 08	W 08	$1 \frac{5}{16}$	2.015	.662	1.5237	18
09	SNW 109	.71	S 109	N 09	W 09	$1 \frac{7}{16}$	2.133	.662	1.7277	18
10	SNW 110	.87	S 110	N 10	W 10	$1 \frac{11}{16}$	2.394	.724	1.9277	18
11	SNW 111	.94	S 111	N 11	W 11	$1 \frac{15}{16}$	2.516	.729	2.1174	18
12	SNW 112	1.42	S 112	N 12	W 12	$2 \frac{1}{16}$	2.659	.760	2.3204	18
13	SNW 113	1.74	S 113	N 13	W 13	$2 \frac{3}{16}$	2.771	.792	2.5084	18
14	SNW 114	2.36	S 114	N 14	W 14	$2 \frac{5}{16}$	2.945	.792	2.7114	18
15	SNW 115	2.97	S 115	AN 15A	W 15	$2 \frac{7}{16}$	3.084	.895	2.8752	12
16	SNW 116	3.19	S 116	AN 16A	W 16	$2 \frac{11}{16}$	3.204	.895	3.0790	12
17	SNW 117	3.40	S 117	AN 17A	W 17	$2 \frac{15}{16}$	3.312	.926	3.2812	12
18	SNW 118	3.99	S 118	AN 18A	W 18	$3 \frac{3}{16}$	3.553	1.010	3.4682	12
19	SNW 119	4.60	S 119	AN 19A	W 19	$3 \frac{5}{16}$	3.702	1.041	3.6712	12
20	SNW 120	6.25	S 120	AN 20A	W 20	$3 \frac{7}{16}$	3.971	1.073	3.8592	12
22	SNW 122	6.47	S 122	AN 22A	W 22	$3 \frac{15}{16}$	4.348	1.135	4.2648	12
24	SNW 124	7.82	S 124	AN 24A	W 24	$4 \frac{3}{16}$	4.648	1.166	4.6558	12
26	SNW 126	12.4	S 126	AN 26A	W 26	$4 \frac{7}{16}$	4.982	1.229	5.0458	12
28	SNW 128	13.0	S 128	AN 28A	W 28	$4 \frac{15}{16}$	5.323	1.291	5.4368	12
30	SNW 130	18.0	S 130	AN 30A	W 30	$5 \frac{3}{16}$	5.621	1.354	5.8278	12
32	SNW 132	18.1	S 132	AN 32A	W 32	$5 \frac{7}{16}$	5.920	1.510	6.1953	8
34	SNW 134	21.0	S 134	AN 34A	W 34	$5 \frac{15}{16}$	6.188	1.541	6.5703	8
36	SNW 136	22.4	S 136	AN 36A	W 36	$6 \frac{7}{16}$	6.456	1.573	6.9773	8
38	SNW 138	28.1	S 138	AN 38A	W 38	$6 \frac{15}{16}$	6.758	1.604	7.3833	8
40	SNW 140	35.7	S 140	AN 40A	W 40	$7 \frac{3}{16}$	7.095	1.666	7.7571	8
44	SNW 144	37.0	S 144	N 44	W 44	$7 \frac{15}{16}$	7.287	1.698	8.5378	8



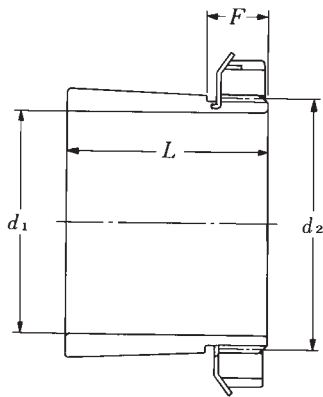
① Threads are derived from the Screw Thread Standards for Federal Services Handbook H-28.

Note: Adapters are supplied complete with Adapter Sleeve, Locknut and Lockwasher.



Units: INCHES

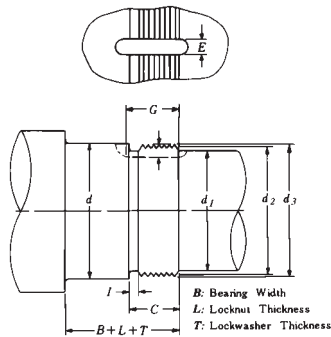
ADAPTERS FOR BEARINGS SERIES 230K, 231K



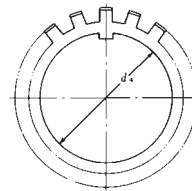
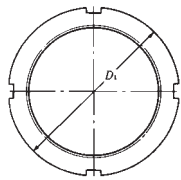
Brg. Bore No.	Complete Adapter		Adapter Sleeve No.	Lock-Nut No.	Lock-washer No.	Nominal Sleeve Dimensions (Inch)				
	Number	Weight (lbs)				Shaft (Bore) Dia. d_1	L	F	Thread Pitch Dia. d_2	Threads Per inch
24	SNW 3024	6.14	S 3024	N 024	W 024	4 3/16	2.947	1.250	4.6558	12
26	SNW 3026	7.50	S 3026	N 026	W 026	4 7/16	3.237	1.313	5.0458	12
28	SNW 3028	8.44	S 3028	N 028	W 028	4 15/16	3.340	1.375	5.4368	12
30	SNW 3030	9.79	S 3030	N 030	W 030	5 3/16	3.492	1.406	5.8278	12
32	SNW 3032	11.8	S 3032	N 032	W 032	5 7/16	3.711	1.468	6.1953	8
34	SNW 3034	13.3	S 3034	N 034	W 034	5 15/16	4.019	1.500	6.5703	8
36	SNW 3036	15.2	S 3036	N 036	W 036	6 7/16	4.337	1.531	6.9773	8
38	SNW 3038	16.7	S 3038	N 038	W 038	6 15/16	4.412	1.594	7.3833	8
40	SNW 3040	19.7	S 3040	N 040	W 040	7 3/16	4.750	1.656	7.7571	8
44	SNW 3044	24.4	S 3044	N 044	W 044	7 15/16	5.130	1.750	8.5378	8
22	SNW 3122	4.25	S 22	N 022	W 022	3 15/16	3.206	1.135	4.2648	12
24	SNW 3124	5.84	S 24	N 024	W 024	4 3/16	3.466	1.166	4.6558	12
26	SNW 3126	8.34	S 26	N 026	W 026	4 7/16	3.762	1.229	5.0458	12
28	SNW 3128	8.85	S 28	N 028	W 028	4 15/16	3.981	1.291	5.4368	12
30	SNW 3130	13.7	S 30	N 030	W 030	5 3/16	4.241	1.354	5.8278	12
32	SNW 3132	13.3	S 32	N 032	W 032	5 7/16	4.578	1.510	6.1953	8
34	SNW 3134	16.1	S 34	N 034	W 034	5 15/16	4.847	1.541	6.5703	8
36	SNW 3136	17.1	S 36	N 036	W 036	6 7/16	5.038	1.573	6.9773	8
38	SNW 3138	19.7	S 38	N 038	W 038	6 15/16	5.261	1.604	7.3833	8
40	SNW 3140	28.4	S 40	N 040	W 040	7 3/16	5.484	1.666	7.7571	8
44	SNW 3144	28.1	S 44	N 044	W 044	7 15/16	5.901	1.698	8.5378	8

① Threads are derived from the Screw Thread Standards for Federal Services Handbook H-28.

Note: Adapters are supplied complete with Adapter Sleeve, Locknut and Lockwasher.



Locknut



Lockwasher



LOCKNUTS AND LOCKWASHERS

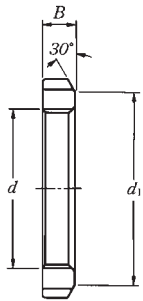
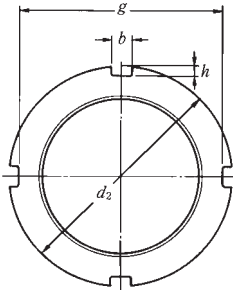
For Bearing with this Bore Number	LOCKNUT NUMBER	LOCKWASHER NUMBER	Shaft Dimensions											Locknut Dimensions		Lockwasher Dimensions		
			d Nominal		d ₂ Thread O. D.		d ₃ Thread Pitch Diameter		① Threads per inch	d ₁ (inch) Extension Diameter Maximum	C (inch)	G (inch)	I (inch)	E (inch)	D ₁ (inch)	L (inch)	T (inch)	d ₁ (inch)
			(mm)	(inch)	Maximum	Tolerance +0.000	Maximum	Tolerance +0.000		②	②	②	②	(inch)	(inch)	(inch)	(inch)	
05	N05	W05	25	.9843	.969	-.0054	.9487	-.0034	32	7/8	15/32	19/32	1/16	3/16	1 9/16	13/32	.050	1.000
06	N06	W06	30	1.1811	1.173	-.0082	1.1369	-.0040	18	1 1/16	15/32	19/32	3/32	3/16	1 3/4	13/32	.050	1.199
07	N07	W07	35	1.3780	1.376	-.0082	1.3399	-.0040	18	1 1/4	1/2	5/8	3/32	3/16	2 1/16	7/16	.050	1.407
08	N08	W08	40	1.5748	1.563	-.0082	1.5269	-.0045	18	1 15/32	17/32	21/32	3/32	5/16	2 1/4	7/16	.058	1.593
09	N09	W09	45	1.7717	1.767	-.0082	1.7309	-.0045	18	1 11/16	17/32	11/16	1/8	5/16	2 17/32	7/16	.058	1 13/16
10	N10	W10	50	1.9685	1.967	-.0082	1.9309	-.0045	18	1 7/8	19/32	3/4	1/8	5/16	2 11/16	1/2	.058	2
11	N11	W11	55	2.1654	2.157	-.0082	2.1209	-.0051	18	2 1/16	19/32	3/4	1/8	5/16	2 31/32	1/2	.063	2 3/16
12	N12	W12	60	2.3622	2.360	-.0082	2.3239	-.0051	18	2 1/4	5/8	25/32	1/8	5/16	3 5/32	17/32	.063	2 13/32
13	N13	W13	65	2.5591	2.548	-.0082	2.5119	-.0051	18	2 7/16	21/32	13/16	1/8	5/16	3 3/8	9/16	.063	2 19/32
14	N14	W14	70	2.7559	2.751	-.0082	2.7149	-.0051	18	2 5/8	21/32	29/32	1/8	5/16	3 5/8	9/16	.063	2 13/16
15	AN15A	W15	75	2.9528	2.933	-.0112	2.8789	-.0054	12	2 25/32	11/16	15/16	9/32	5/16	3 7/8	19/32	.072	3
16	AN16A	W16	80	3.1496	3.137	-.0112	3.0829	-.0059	12	3	11/16	15/16	9/32	3/8	4 5/32	19/32	.072	3 3/16
17	AN17A	W17	85	3.3465	3.340	-.0112	3.2859	-.0074	12	3 3/16	23/32	31/32	9/32	3/8	4 13/32	5/8	.072	3 13/32
18	AN18A	W18	90	3.5433	3.527	-.0112	3.4729	-.0074	12	3 3/8	13/16	1 1/16	5/32	3/8	4 21/32	11/16	.094	3 19/32
19	AN19A	W19	95	3.7402	3.730	-.0112	3.6759	-.0074	12	3 9/16	27/32	1 9/32	9/32	3/8	4 15/16	23/32	.094	3 13/16
20	AN20A	W20	100	3.9370	3.918	-.0112	3.8639	-.0074	12	3 25/32	7/8	1 3/16	5/32	3/8	5 3/16	3/4	.094	4
21	AN21A	W21	105	4.1339	4.122	-.0112	4.0679	-.0083	12	3 15/16	7/8	1 3/16	5/32	3/8	5 7/16	3/4	.094	4 7/32
22	AN22A	W22	110	4.3307	4.325	-.0112	4.2709	-.0083	12	4 3/16	29/32	1 7/32	5/32	3/8	5 23/32	25/32	.125	4 13/32
24	AN24A	W24	120	4.7244	4.716	-.0112	4.6619	-.0083	12	4 9/16	15/16	1 1/4	5/32	3/8	6 1/8	13/16	.125	4 13/16
26	AN26A	W26	130	5.1181	5.106	-.0112	5.0519	-.0083	12	4 15/16	1	1 5/16	5/32	1/2	6 3/4	7/8	.125	5 7/32
28	AN28A	W28	140	5.5118	5.497	-.0112	5.4429	-.0083	12	5 9/16	1 1/16	1 3/8	9/32	5/8	7 3/32	15/16	.125	5 19/32
30	AN30A	W30	150	5.9055	5.888	-.0112	5.8339	-.0083	12	5 23/32	1 1/8	1 1/2	5/32	5/8	7 11/16	31/32	.156	6
32	AN32A	W32	160	6.2992	6.284	-.0152	6.2028	-.0091	8	6 1/8	1 3/16	1 9/16	1/4	5/8	8 1/16	1 1/32	.156	6 13/32
34	AN34A	W34	170	6.6929	6.659	-.0152	6.5778	-.0091	8	6 1/2	1 7/32	1 19/32	1/4	3/4	8 21/32	1 1/16	.156	6 25/32
36	AN36A	W36	180	7.0866	7.066	-.0152	6.9848	-.0091	8	6 29/32	1 1/4	1 5/8	1/4	3/4	9 1/16	1 3/32	.156	7 3/16
38	AN38A	W38	190	7.4803	7.472	-.0152	7.3908	-.0091	8	7 9/16	1 9/32	1 21/32	1/4	3/4	9 15/32	1 1/8	.156	7 19/32
40	AN40A	W40	200	7.8740	7.847	-.0152	7.7658	-.0114	8	7 11/16	1 11/32	1 23/32	1/4	7/8	9 27/32	1 3/16	.156	8
44	N44	W44	220	8.6614	8.628	-.0152	8.5468	-.0121	8	8 5/16	1 3/8	1 9/16	1/4	1 1/16	11	1 1/4	.156	8 45/64
22	N022	W022	110	4.3307	4.325	-.0112	4.2709	-.0083	12	4 3/16	29/32	1 7/32	5/32	3/8	5 5/16	25/32	.125	4 13/32
24	N024	W024	120	4.7244	4.716	-.0112	4.6619	-.0083	12	4 9/16	15/16	1 1/4	5/32	3/8	5 11/16	13/16	.125	4 13/16
26	N026	W026	130	5.1181	5.106	-.0112	5.0519	-.0083	12	4 15/16	1	1 5/16	5/32	1/2	6 1/8	7/8	.125	5 7/32
28	N028	W028	140	5.5118	5.497	-.0112	5.4429	-.0083	12	5 9/16	1 1/16	1 3/8	9/32	5/8	6 1/2	15/16	.125	5 19/32
30	N030	W030	150	5.9055	5.888	-.0112	5.8339	-.0083	12	5 23/32	1 1/8	1 1/2	5/32	5/8	7 1/8	31/32	.125	6
32	N032	W032	160	6.2992	6.284	-.0152	6.2028	-.0091	8	6 1/8	1 3/16	1 9/16	1/4	5/8	7 1/2	1 1/32	.125	6 13/32
34	N034	W034	170	6.6929	6.659	-.0152	6.5778	-.0091	8	6 1/2	1 7/32	1 19/32	1/4	3/4	7 7/8	1 1/16	.125	6 25/32
36	N036	W036	180	7.0866	7.066	-.0152	6.9848	-.0091	8	6 29/32	1 1/4	1 5/8	1/4	3/4	8 1/4	1 3/32	.125	7 3/16
38	N038	W038	190	7.4803	7.472	-.0152	7.3908	-.0091	8	7 9/16	1 9/32	1 21/32	1/4	3/4	8 11/16	1 1/8	.125	7 19/32
40	N040	W040	200	7.8740	7.847	-.0152	7.7658	-.0114	8	7 11/16	1 11/32	1 23/32	1/4	7/8	9 7/16	1 3/16	.125	8
44	N044	W044	220	8.6614	8.628	-.0152	8.5468	-.0121	8	8 5/16	1 3/8	1 9/16	1/4	1 1/16	10 1/4	1 1/4	.125	8 45/64

① Threads are derived from the Screw Thread Standards for Federal services Handbook H-28.
 ② Tolerance: + 1/64 to -0 inch



LOCKNUTS AND LOCKWASHERS

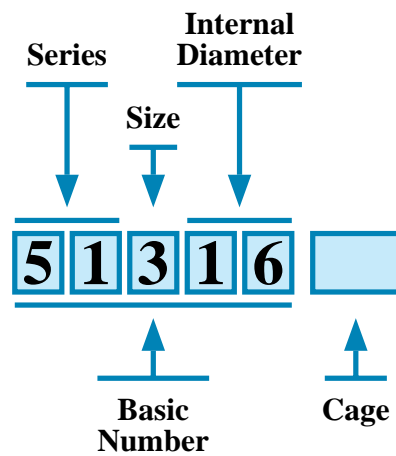
For Bearing with Bore Number	Locknut Number	Lockwasher Number	Thread Size	Threads per mm	Dimensions (mm)						Shaft Diameter (mm)
					d_1	d_2	g	b	h	B	
—	AN00	AW00	M10 X 75	.75	13	18	14	3	2	4	10
—	AN01	AW01	M12 X 1	1.0	17	22	18	3	2	4	12
—	AN02	AW02	M15 X 1	1.0	21	25	21	4	2	5	15
—	AN03	AW03	M17 X 1	1.0	24	28	24	4	2	5	17
04	AN04	AW04	M20 X 1	1.5	26	32	28	4	2	6	20
05	AN05	AW05	M25 X 1.5	1.5	32	38	34	5	2	7	25
06	AN06	AW06	M30 X 1.5	1.5	38	45	41	5	2	7	30
07	AN07	AW07	M35 X 1.5	1.5	44	52	48	5	2	8	35
08	AN08	AW08	M40 X 1.5	1.5	50	58	53	6	2.5	9	40
09	AN09	AW09	M45 X 1.5	1.5	56	65	60	6	2.5	10	45
10	AN10	AW10	M50 X 1.5	2.0	61	70	65	6	2.5	11	50
11	AN11	AW11	M55 X 2	2.0	67	75	69	7	3	11	55
12	AN12	AW12	M60 X 2	2.0	73	80	74	7	3	11	60
13	AN13	AW13	M65 X 2	2.0	79	85	79	7	3	12	65
14	AN14	AW14	M70 X 2	2.0	85	92	85	8	3.5	12	70
15	AN15	AW15	M75 X 2	2.0	90	98	91	8	3.5	13	75
16	AN16	AW16	M80 X 2	2.0	95	105	98	8	3.5	15	80
17	AN17	AW17	M85 X 2	2.0	102	110	103	8	3.5	16	85
18	AN18	AW18	M90 X 2	2.0	108	120	112	10	4	16	90
19	AN19	AW19	M95 X 2	2.0	113	125	117	10	4	17	95
20	AN20	AW20	M100 X 2	2.0	120	130	122	10	4	18	100
21	AN21	AW21	M105 X 2	2.0	126	140	130	12	5	18	105
22	AN22	AW22	M110 X 2	2.0	133	145	135	12	5	19	110
—	AN23	AW23	M115 X 2	2.0	137	150	140	12	5	19	115
24	AN24	AW24	M120 X 2	2.0	138	155	145	12	5	20	120
—	AN25	AW25	M125 X 2	2.0	148	160	150	12	5	21	125
26	AN26	AW26	M130 X 2	2.0	149	165	155	12	5	21	130
—	AN27	AW27	M135 X 2	2.0	160	175	163	14	6	22	135
28	AN28	AW28	M140 X 2	2.0	160	180	168	14	6	22	140
—	AN29	AW29	M145 X 2	2.0	171	190	178	14	6	24	145
30	AN30	AW30	M150 X 2	2.0	171	195	183	14	6	24	150
—	AN31	AW31	M155 X 3	3.0	182	200	186	16	7	25	155
32	AN32	AW32	M160 X 3	3.0	182	210	196	16	7	25	160
—	AN33	AW33	M165 X 3	3.0	193	210	196	16	7	26	165
34	AN34	AW34	M170 X 3	3.0	193	220	206	16	7	26	170
36	AN36	AW36	M180 X 3	3.0	203	230	214	18	8	27	180
38	AN38	AW38	M190 X 3	3.0	214	240	224	18	8	28	190
40	AN40	AW40	M200 X 3	3.0	226	250	234	18	8	29	200
44	AN44	AL44	Tr220 X 4	4.0	250	280	260	20	10	32	220
48	AN48	AL44	Tr240 X 4	4.0	270	300	280	20	10	34	240
52	AN52	AL52	Tr260 X 4	4.0	300	330	306	24	12	36	260
56	AN56	AL52	Tr280 X 4	4.0	320	350	326	24	12	38	280
60	AN60	AL60	Tr300 X 4	4.0	340	380	356	24	12	40	300
64	AN64	AL64	Tr320 X 5	5.0	360	400	376	24	12	42	320
68	AN68	AL68	Tr340 X 5	5.0	400	440	410	28	15	55	340
72	AN72	AL68	Tr360 X 5	5.0	420	460	430	28	15	58	360
76	AN76	AL76	Tr380 X 5	5.0	450	490	454	32	18	60	380
80	AN80	AL80	Tr400 X 5	5.0	470	520	484	32	18	62	400
84	AN84	AL80	Tr420 X 5	5.0	490	540	504	32	18	70	420
88	AN88	AL88	Tr440 X 5	5.0	510	560	520	36	20	70	440
92	AN92	AL88	Tr460 X 5	5.0	540	580	540	36	20	75	460
96	AN96	AL96	Tr480 X 5	5.0	560	620	580	36	20	75	480
/500	AN100	AL100	Tr500 X 5	5.0	580	630	584	40	23	80	800



LOCKNUTS AND LOCKWASHERS

— INCH SIZES —				— METRIC SIZES —			
Locknut Number	Weight (lbs)	Lockwasher Number	Weight (oz)	Locknut Number	Weight (lbs)	Lockwasher Number	Weight (oz)
N05	.12	W05	.16	AN00	.01	AW00	.05
N06	.14	W06	.18	AN01	.02	AW01	.07
N07	.22	W07	.26	AN02	.02	AW02	.09
N08	.24	W08	.39	AN03	.03	AW03	.11
N09	.31	W09	.48	AN04	.04	AW04	.12
N10	.36	W10	.49	AN05	.06	AW05	.23
N11	.44	W11	.59	AN06	.09	AW06	.28
N12	.49	W12	.61	AN07	.12	AW07	.37
N13	.59	W13	.71	AN08	.19	AW08	.43
N14	.67	W14	.81	AN09	.26	AW09	.54
AN15A	.83	W15	1.19	AN10	.33	AW10	.56
AN16A	.96	W16	1.37	AN11	.35	AW11	.69
AN17A	1.10	W17	1.42	AN12	.38	AW12	.89
AN18A	1.37	W18	2.21	AN13	.45	AW13	1.02
AN19A	1.63	W19	2.47	AN14	.53	AW14	1.18
AN20A	1.89	W20	2.76	AN15	.63	AW15	1.26
AN21A	1.99	W21	2.94	AN16	.88	AW16	1.64
AN22A	2.33	W22	4.60	AN17	.99	AW17	1.85
AN24A	2.55	W24	4.90	AN18	1.23	AW18	2.20
AN26A	3.53	W26	6.21	AN19	1.45	AW19	2.36
AN28A	3.92	W28	6.40	AN20	1.54	AW20	2.70
AN30A	4.89	W30	9.71	AN21	1.86	AW21	2.91
AN32A	5.55	W32	9.92	AN22	2.13	AW22	3.32
AN34A	6.93	W34	12.22	AN23	2.23	AW23	3.81
AN36A	7.35	W36	12.87	AN24	2.38	AW24	3.70
AN38A	7.99	W38	13.46	AN25	2.62	AW25	4.16
AN40A	8.86	W40	13.88	AN26	2.76	AW26	3.99
N44	11.85	W44	19.41	AN27	3.42	AW27	5.08
N022	1.62	W022	3.39	AN28	3.44	AW28	5.01
N024	1.82	W024	3.75	AN29	4.41	AW29	5.93
N026	2.21	W026	4.02	AN30	4.48	AW30	5.82
N028	2.50	W028	4.39	AN31	4.87	AW31	7.37
N030	3.42	W030	6.21	AN32	5.71	AW32	7.83
N032	3.89	W032	6.53	AN33	5.36	AW33	8.50
N034	4.25	W034	6.98	AN34	6.17	AW34	8.71
N036	4.50	W036	7.16	AN36	6.77	AW36	9.45
N038	5.02	W038	7.41	AN38	7.47	AW38	9.81
N040	7.10	W040	9.01	AN40	8.14	AW40	10.34
N044	8.20	W044	9.58	AN44	11.47	AL44	.92
				AN48	13.12	AL44	.92
				AN52	17.75	AL52	1.20
				AN56	19.96	AL52	1.20
				AN60	26.02	AL60	1.34
				AN64	28.89	AL64	1.89
				AN68	50.94	AL68	2.35
				AN72	55.35	AL68	2.35
				AN76	68.13	AL76	2.81
				AN80	81.36	AL80	2.89
				AN84	95.92	AL80	2.89
				AN88	99.89	AL88	3.17
				AN92	111.13	AL88	3.17
				AN96	137.15	AL96	3.67
				AN100	139.58	AL100	3.70





1. SERIES & SIZE

- 51, 53*: Single direction thrust ball bearing
- 52, 54*: Double direction thrust ball bearing
- 56: Angular contact thrust ball bearing
- 29: Spherical thrust roller bearing
- 29: Single direction thrust ball bearing
- 9: Single direction thrust ball bearing

2. CAGE

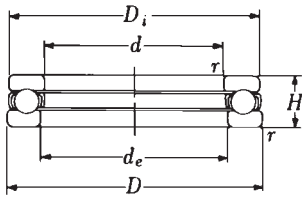
- No Symbol: Standard cage
- J: Pressed steel cage
- L1: Machined brass cage
- T2: Plastic cage, nylon or teflon

* Self-aligning outside diameter



Units: **INCHES**
Millimeters

SINGLE DIRECTION THRUST BALL BEARINGS



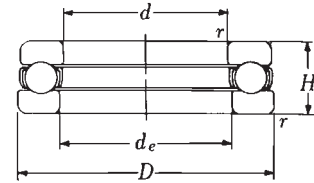
Bearing No.	d	de	Di	D	H	r	Basic Load Ratings (lbs)		Weight (lbs)
							Dynamic C	Static Co	
51100	.3937	.433	.945	.9449	.3543	.020	2,250	3,150	.046
01	.4724	.512	1.024	1.0236	.3543	.020	2,320	3,450	.051
02	.5906	.630	1.102	1.1024	.3543	.020	2,370	3,750	.053
51103	.6693	.709	1.181	1.1811	.3543	.020	2,430	4,100	.057
04	.7874	.827	1.378	1.3780	.3937	.020	3,200	5,550	.088
05	.9843	1.024	1.654	1.6535	.4331	.039	4,400	8,350	.132
51106	1.1811	1.260	1.850	1.8504	.4331	.039	4,600	9,500	.152
07	1.3780	1.457	2.047	2.0472	.4724	.039	4,600	10,000	.187
08	1.5748	1.654	2.362	2.3622	.5118	.039	6,050	14,100	.276
51109	1.7717	1.850	2.559	2.5591	.5512	.039	6,250	15,500	.326
10	1.9685	2.047	2.756	2.7559	.5512	.039	6,450	17,000	.355
11	2.1654	2.244	3.071	3.0709	.6299	.039	7,800	20,900	.498
51112	2.3622	2.441	3.346	3.3465	.6693	.059	9,300	25,300	.653
13	2.5591	2.638	3.543	3.5433	.7087	.059	9,400	26,400	.745
14	2.7559	2.835	3.740	3.7402	.7087	.059	9,700	28,500	.785
51115	2.9528	3.031	3.937	3.9370	.7480	.059	10,000	30,500	.880
16	3.1496	3.228	4.134	4.1339	.7480	.059	10,000	31,500	.930
17	3.3465	3.425	4.331	4.3307	.7480	.059	10,300	34,000	.979
51118	3.5433	3.622	4.724	4.7244	.8661	.059	13,400	42,500	1.51
20	3.9370	4.016	5.315	5.3150	.9843	.059	19,100	60,500	2.16
22	4.3307	4.409	5.709	5.7087	.9843	.059	19,600	64,500	2.36
51124	4.7244	4.803	6.102	6.1024	.9843	.059	20,000	69,000	2.45
26	5.1181	5.197	6.693	6.6929	1.1811	.059	23,300	79,000	3.81
28X	5.5113	5.591	7.008	7.0866	1.2205	.059	24,000	84,000	4.11
51130X	5.9055	5.984	7.402	7.4803	1.2205	.059	24,600	90,500	4.71
32X	6.2992	6.378	7.795	7.8740	1.2205	.059	25,100	96,000	5.04
34X	6.6929	6.772	8.386	8.4646	1.3386	.079	30,000	115,000	6.46
51136X	7.0866	7.205	8.740	8.8583	1.3386	.079	30,500	119,000	6.65
38X	7.4803	7.598	9.331	9.4488	1.4567	.079	38,500	148,000	8.64
40X	7.8740	7.992	9.724	9.8425	1.4567	.079	38,500	152,000	9.05
51144X	8.6614	8.780	10.512	10.6299	1.4567	.079	40,000	166,000	9.88
48X	9.4488	9.567	11.693	11.8110	1.7717	.098	51,000	210,000	15.8
52X	10.2362	10.354	12.480	12.5984	1.7717	.098	52,000	222,000	17.0

SINGLE DIRECTION THRUST BALL BEARINGS

Units: **INCHES**
Millimeters



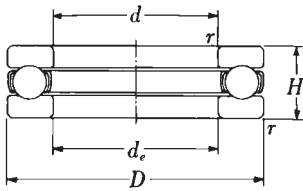
Bearing No.	<i>d</i>	<i>d_e</i>	<i>D</i>	<i>H</i>	<i>r</i>	Basic Load Ratings (lbs)		Weight (lbs)
						Dynamic <i>C</i>	Static <i>C₀</i>	
51200	.3937	.472	1.0236	.4331	.039	2,850	3,850	.066
01	.4724	.551	1.1024	.4331	.039	2,960	4,250	.075
02	.5906	.669	1.2598	.4724	.039	3,750	5,600	.101
51203	.6693	.748	1.3780	.4724	.039	3,850	6,150	.119
04	.7874	.866	1.5748	.5512	.039	5,000	8,500	.179
05	.9843	1.063	1.8504	.5906	.039	6,250	11,300	.245
51206	1.1811	1.260	2.0472	.6299	.039	6,600	13,100	.306
07	1.3780	1.457	2.4409	.7087	.059	8,800	17,600	.474
08	1.5748	1.654	2.6772	.7480	.059	10,600	22,100	.608
51209	1.7717	1.850	2.8740	.7874	.059	10,700	23,600	.699
10	1.9685	2.047	3.0709	.8661	.059	10,900	25,100	.833
11	2.1654	2.244	3.5433	.9843	.059	15,600	35,500	1.34
51212	2.3622	2.441	3.7402	1.0236	.059	16,500	40,000	1.49
13	2.5591	2.638	3.9370	1.0630	.059	16,800	42,500	1.69
14	2.7559	2.835	4.1339	1.0630	.059	17,100	44,500	1.75
51215	2.9528	3.031	4.3307	1.0630	.059	17,400	47,000	1.93
16	3.1496	3.228	4.5276	1.1024	.059	17,700	49,000	2.02
17	3.3465	3.465	4.9213	1.2205	.059	21,400	59,500	2.76
51218	3.5433	3.661	5.3150	1.3780	.079	26,200	73,000	3.75
20	3.9370	4.055	5.9055	1.4961	.079	33,000	92,000	5.05
22	4.3307	4.449	6.2992	1.4961	.079	34,500	101,000	5.42
51224	4.7244	4.843	6.6929	1.5354	.079	34,500	106,000	5.97
26	5.1181	5.236	7.4803	1.7717	.098	43,000	127,000	9.03
28	5.5118	5.630	7.8740	1.8110	.098	43,500	133,000	10.2





Units: **INCHES**
Millimeters

SINGLE DIRECTION THRUST BALL BEARINGS



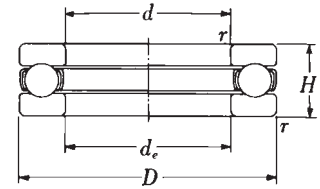
Bearing No.	d	d _c	D	H	r	Basic Load Ratings (lbs)		Weight (lbs)
						Dynamic C	Static C ₀	
900	.3937 10	.402 10.2	.9843 25	.4724 12	.039 1.0	2,870	3,850	.066
02	.5906 15	.598 15.2	1.3780 35	.5512 14	.039 1.0	4,700	7,050	.146
04	.7874 20	.795 20.2	1.5748 40	.5512 14	.039 1.0	5,000	8,500	.174
905	.9843 25	.992 25.2	1.8898 48	.6102 15.5	.039 1.0	6,200	11,300	.271
06	1.1811 30	1.189 30.2	2.0866 53	.6102 15.5	.039 1.0	6,600	13,100	.306
07	1.3780 35	1.386 35.2	2.4409 62	.7087 18	.039 1.0	8,800	17,600	.498
908	1.5748 40	1.583 40.2	2.5197 64	.7087 18	.039 1.0	8,150	17,900	.476
09	1.7717 45	1.780 45.2	2.8740 73	.8661 22	.039 1.0	11,200	25,100	.787
10	1.9685 50	1.976 50.2	3.0709 78	.8661 22	.039 1.0	12,700	29,100	.833
911	2.1654 55	2.173 55.2	3.4646 88	.9646 24.5	.039 1.0	15,700	35,500	1.22
12	2.3622 60	2.370 60.2	3.5433 90	.9646 24.5	.039 1.0	13,100	32,500	1.17
13	2.5591 65	2.567 65.2	3.9370 100	1.0630 27	.059 1.5	16,200	40,000	1.65
914	2.7559 70	2.764 70.2	4.0551 103	1.0630 27	.059 1.5	16,600	42,500	1.63
15	2.9528 75	2.961 75.2	4.3307 110	1.0630 27	.059 1.5	17,400	47,000	1.85
16	3.1496 80	3.157 80.2	4.5276 115	1.1417 29	.059 1.5	19,400	53,000	2.11
917	3.3465 85	3.354 85.2	4.9213 125	1.2008 30.5	.059 1.5	25,000	66,500	2.71
18	3.5433 90	3.551 90.2	5.3150 135	1.2008 30.5	.059 1.5	29,900	80,000	3.26
20	3.9370 100	3.945 100.2	5.9055 150	1.2795 32.5	.059 1.5	35,000	95,500	4.30
922	4.3307 110	4.339 110.2	6.2992 160	1.5748 40	.079 2.0	39,000	106,000	5.71
24	4.7244 120	4.732 120.2	6.6929 170	1.6929 43	.079 2.0	41,000	118,000	6.59
26	5.1181 130	5.126 130.2	7.0866 180	1.8307 46.5	.079 2.0	41,500	124,000	7.61
928	5.5118 140	5.520 140.2	7.8740 200	2.0472 52	.079 2.0	52,500	157,000	11.2

SINGLE DIRECTION THRUST BALL BEARINGS

Units: **INCHES**
Millimeters



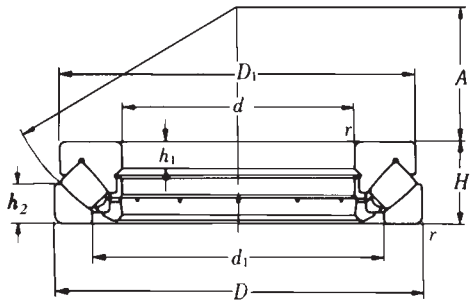
Bearing No.	<i>d</i>	<i>d_e</i>	<i>D</i>	<i>H</i>	<i>r</i>	Basic Load Ratings (lbs)		Weight (lbs)
						Dynamic <i>C</i>	Static <i>C₀</i>	
2900	.3937	.402	1.0236	.4724	.039	2,850	3,850	.073
01	10	10.2	26	12	1.0	2,960	4,250	.082
	.4724	.480	1.1024	.4724	.039			
02	12	12.2	28	12	1.0	3,200	5,150	.090
	.5906	.598	1.2205	.4724	.039			
2903	15	15.2	31	12	1.0	3,250	5,550	.099
	.7087	.717	1.3780	.4724	.039			
04 ½	18	18.2	35	12	1.0	3,350	6,000	.121
	.7874	.795	1.4567	.4724	.039			
04	20	20.2	37	12	1.0	4,250	7,800	.185
	.8661	.874	1.6535	.5512	.039			
2905	22	22.2	42	14	1.0	4,350	8,350	.207
	.9843	.992	1.7717	.5512	.039			
06	25	25.2	45	14	1.0	4,550	9,500	.238
	1.1811	1.189	1.9685	.5512	.039			
07	30	30.2	50	14	1.0	6,700	14,000	.304
	1.3780	1.386	2.1654	.6299	.039			
2908	35	35.2	55	16	1.0	7,050	15,700	.340
	1.5748	1.583	2.3622	.6299	.039			
09	40	40.2	60	16	1.0	7,250	17,400	.441
	1.7717	1.780	2.6772	.6299	.039			
10	45	45.2	68	16	1.0	8,650	21,100	.567
	1.9685	1.976	2.9134	.7087	.039			
2911	50	50.2	74	18	1.0	9,000	23,200	.582
	2.1654	2.173	3.0709	.7087	.039			
12	55	55.2	78	18	1.0	9,100	24,300	.595
	2.3622	2.370	3.2283	.7087	.039			
13	60	60.2	82	18	1.0	10,600	28,900	.820
	2.5591	2.567	3.5433	.7874	.039			
2914	65	65.2	90	20	1.0	11,000	31,500	.873
	2.7559	2.764	3.7402	.7874	.039			
15	70	70.2	95	20	1.0	11,400	34,000	.926
	2.9528	2.961	3.9370	.7874	.039			
16	75	75.2	100	20	1.0	12,900	38,500	1.31
	3.1496	3.157	4.3307	.8661	.039			
2917	80	80.2	110	22	1.0	13,300	41,500	1.40
	3.3465	3.354	4.5276	.8661	.039			
18	85	85.2	115	22	1.0	13,400	42,500	1.47
	3.5433	3.551	4.7244	.8661	.039			
19	90	90.2	120	22	1.0	12,500	40,000	2.09
	3.7402	3.748	5.1181	.9843	.039			
2920	95	95.2	130	25	1.0	19,100	60,500	2.17
	3.9370	3.945	5.3150	.9843	.039			
22	100	100.2	135	25	1.0	19,600	64,500	2.36
	4.3307	4.339	5.7087	.9843	.039			
24	110	110.2	145	25	1.0	22,100	75,500	3.20
	4.7244	4.732	6.2992	1.0630	.039			
	120	120.2	160	27	1.0			





Units: INCHES
Millimeters

SPHERICAL ROLLER THRUST BEARINGS



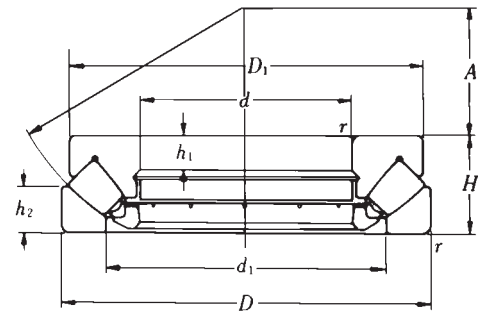
Bearing No.	d	D	H	D ₁	d ₁	h ₁	h ₂	A	r	Basic Load Ratings (lbs)		Weight (lbs)
										Dynamic C	Static C ₀	
29230	5.9055 150	8.4646 215	1.5354 39	8.1890 208	7.01 178	.551 14	.748 19.0	3.228 82	.098 2.5	76,500	300,000	9.85
32	6.2992 160	8.8583 225	1.5354 39	8.6220 219	7.40 188	.551 14	.748 19.0	3.386 86	.098 2.5	80,500	325,000	10.4
34	6.6929 170	9.4488 240	1.6535 42	9.1732 233	7.80 198	.591 15	.787 20.0	3.622 92	.098 2.5	95,500	395,000	12.8
29236	7.0866 180	9.8425 250	1.6535 42	9.5669 243	8.19 208	.591 15	.787 20.0	3.819 97	.098 2.5	101,000	430,000	13.5
38	7.4803 190	10.6299 270	1.8898 48	10.3150 262	8.78 223	.591 15	.945 24.0	4.094 104	.118 3.0	119,000	500,000	18.8
40	7.8740 200	11.0236 280	1.8898 48	10.6693 271	9.29 236	.591 15	.945 24.0	4.252 108	.118 3.0	120,000	515,000	19.6
29244	8.6614 220	11.8110 300	1.8898 48	11.4961 292	10.00 254	.591 15	.945 24.0	4.606 117	.118 3.0	125,000	560,000	22.0
48	9.4488 240	13.3858 340	2.3622 60	12.9921 330	11.14 283	.748 19	1.181 30.0	5.118 130	.138 3.5	185,000	810,000	36.8
52	10.2362 260	14.1732 360	2.3622 60	13.7795 350	11.89 302	.748 19	1.181 30.0	5.472 139	.138 3.5	195,000	885,000	40.8
29256	11.0236 280	14.9606 380	2.3622 60	14.5669 370	12.72 323	.748 19	1.181 30.0	5.906 150	.138 3.5	197,000	910,000	43.0
29317	3.3465 85	5.9055 150	1.5354 39	5.6496 143.5	4.49 114	.512 13	.748 19.0	1.969 50	.098 2.5	59,500	185,000	6.33
18	3.5433 90	6.1024 155	1.5354 39	5.8465 148.5	4.61 117	.512 13	.748 19.0	2.047 52	.098 2.5	64,000	206,000	6.75
20	3.9370 100	6.6929 170	1.6535 42	6.4173 163	5.08 129	.551 14	.819 20.8	2.283 58	.098 2.5	78,000	260,000	8.62
29322	4.3307 110	7.4803 190	1.8898 48	7.1654 182	5.63 143	.630 16	.906 23.0	2.520 64	.118 3.0	99,500	335,000	12.3
24	4.7244 120	8.2677 210	2.1260 54	7.8740 200	6.26 159	.709 18	1.024 26.0	2.756 70	.138 3.5	120,000	400,000	16.9
26	5.1181 130	8.8583 225	2.2835 58	8.4646 215	6.73 171	.748 19	1.102 28.0	2.992 76	.138 3.5	138,000	475,000	20.8
29328	5.5118 140	9.4488 240	2.3622 60	9.0551 230	7.20 183	.787 20	1.142 29.0	3.228 82	.138 3.5	154,000	530,000	24.5
30	5.9055 150	9.8425 250	2.3622 60	9.4488 240	7.64 194	.787 20	1.142 29.0	3.425 87	.138 3.5	151,000	535,000	25.6
32	6.2992 160	10.6299 270	2.6378 67	10.2362 260	8.19 208	.906 23	1.260 32.0	3.622 92	.157 4.0	185,000	645,000	34.0
29334	6.6929 170	11.0236 280	2.6378 67	10.6299 270	8.50 216	.906 23	1.260 32.0	3.780 96	.157 4.0	192,000	685,000	35.7
36	7.0866 180	11.8110 300	2.8740 73	11.4173 290	9.13 232	.984 25	1.378 35.0	4.055 103	.157 4.0	224,000	805,000	45.6
38	7.4803 190	12.5984 320	3.0709 78	12.1260 308	9.69 246	1.063 27	1.496 38.0	4.331 110	.197 5.0	258,000	955,000	55.3
29340	7.8740 200	13.3858 340	3.3465 85	12.7953 325	10.28 261	1.142 29	1.614 41.0	4.567 116	.197 5.0	288,000	1,030,000	68.8
44	8.6614 220	14.1732 360	3.3465 85	13.5827 345	11.02 280	1.142 29	1.614 41.0	4.921 125	.197 5.0	310,000	1,170,000	73.4
48	9.4488 240	14.9606 380	3.3465 85	14.3701 365	11.81 300	1.142 29	1.614 41.0	5.315 135	.197 5.0	310,000	1,180,000	78.3
29352	10.2362 260	16.5354 420	3.7402 95	15.9449 405	12.95 329	1.260 32	1.772 45.0	5.827 148	.236 6.0	385,000	1,530,000	115
56	11.0236 280	17.3228 440	3.7402 95	16.6535 423	13.70 348	1.260 32	1.811 46.0	6.220 158	.236 6.0	405,000	1,630,000	120

SPHERICAL ROLLER THRUST BEARINGS

Units: INCHES
Millimeters

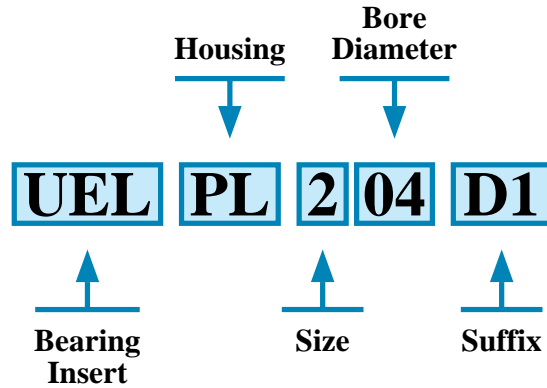


Bearing No.	<i>d</i>	<i>D</i>	<i>H</i>	<i>D</i> ₁	<i>d</i> ₁	<i>h</i> ₁	<i>h</i> ₂	<i>A</i>	<i>r</i>	Basic Load Ratings (lbs)		Weight (lbs)
										Dynamic <i>C</i>	Static <i>C</i> ₀	
29412	2.3622 60	5.1181 130	1.6535 42	4.8425 123	3.50 89	.591 15	.787 20	1.496 38	.098 2.5	63,500	181,000	5.75
13	2.5591 65	5.5118 140	1.7717 45	5.2362 133	3.78 96	.630 16	.827 21	1.654 42	.118 3	74,000	212,000	7.36
14	2.7559 70	5.9055 150	1.8898 48	5.5906 142	4.06 103	.669 17	.906 23	1.732 44	.118 3	82,000	234,000	8.95
29415	2.9528 75	6.2992 160	2.0079 51	5.9843 152	4.29 109	.709 18	.945 24	1.850 47	.118 3	94,000	268,000	10.5
16	3.1496 80	6.6929 170	2.1260 54	6.3780 162	4.61 117	.748 19	1.024 26	1.969 50	.138 3.5	103,000	310,000	13.0
17	3.3465 85	7.0866 180	2.2835 58	6.6929 170	4.92 125	.827 21	1.102 28	2.126 54	.138 3.5	110,000	335,000	15.5
29418	3.5433 90	7.4803 190	2.3622 60	7.0866 180	5.20 132	.866 22	1.142 29	2.205 56	.138 3.5	123,000	380,000	18.0
20	3.9370 100	8.2677 210	2.6378 67	7.8740 200	5.75 146	.945 24	1.260 32	2.441 62	.157 4	154,000	480,000	24.7
22	4.3307 110	9.0551 230	2.8740 73	8.6614 220	6.38 162	1.024 26	1.378 35	2.717 69	.157 4	190,000	590,000	32.4
29424	4.7244 120	9.8425 250	3.0709 78	9.2913 236	6.85 174	1.142 29	1.457 37	2.913 74	.197 5	219,000	690,000	40.1
26	5.1181 130	10.6299 270	3.3465 85	10.0394 255	7.44 189	1.220 31	1.614 41	3.189 81	.197 5	242,000	795,000	50.3
28	5.5118 140	11.0236 280	3.3465 85	10.5512 268	7.83 199	1.220 31	1.614 41	3.386 86	.197 5	251,000	845,000	54.2
29430	5.9055 150	11.8110 300	3.5433 90	11.2205 285	8.43 214	1.260 32	1.732 44	3.622 92	.197 5	288,000	980,000	65.9
32	6.2992 160	12.5984 320	3.7402 95	12.0472 306	9.02 229	1.339 34	1.772 45	3.898 99	.236 6	335,000	1,160,000	79.8
34	6.6929 170	13.3858 340	4.0551 103	12.7559 324	9.57 243	1.457 37	1.969 50	4.094 104	.236 6	370,000	1,300,000	97.7
29436	7.0866 180	14.1732 360	4.2913 109	13.4646 342	10.04 255	1.535 39	2.047 52	4.331 110	.236 6	415,000	1,400,000	116
38	7.4803 190	14.9606 380	4.5276 115	14.1732 360	10.67 271	1.614 41	2.165 55	4.606 117	.236 6	450,000	1,530,000	134
40	7.8740 200	15.7480 400	4.8031 122	14.9606 380	11.26 286	1.693 43	2.323 59	4.803 122	.236 6	500,000	1,720,000	159
29444	8.6614 220	16.5354 420	4.8031 122	15.7480 400	12.13 308	1.693 43	2.283 58	5.197 132	.315 8	515,000	1,820,000	165
48	9.4488 240	17.3228 440	4.8031 122	16.5354 420	12.83 326	1.693 43	2.323 59	5.591 142	.315 8	540,000	1,950,000	176
52	10.2362 260	18.8976 480	5.1969 132	18.1102 460	14.06 357	1.890 48	2.520 64	6.063 154	.315 8	615,000	2,250,000	229
29456	11.0236 280	20.4724 520	5.7087 145	19.4882 495	15.24 387	2.047 52	2.677 68	6.535 166	.315 8	750,000	2,790,000	295

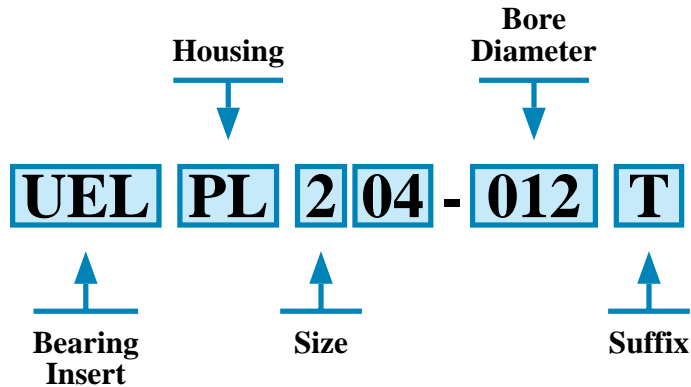




Metric Series



Inch Series



1. BEARING INSERTS*

AEL:	Narrow inner ring, locking collar
AR:	Narrow inner ring, set screw type
AS:	Narrow inner ring, set screw type
JEL:	Narrow inner ring, locking collar
REL:	Wide inner ring, locking collar
UR:	Wide inner ring, set screw type
UC:	Wide inner ring, set screw type, with flinger
UEL:	Wide inner ring, locking collar, with flinger
UK:	Tapered bore, with flinger

HP:	Pillow Block, cast housing, high center height
P:	Pillow Block, cast housing
PL:	Pillow Block, cast housing, low center height
PP:	Pillow Block, pressed steel housing
RPP:	Pillow Block, pressed steel housing with rubber ring
UP:	Pillow Block, cast housing
C:	Cylindrical cartridge unit
HB:	Hanger unit, cast housing
PT:	Mini stretcher
T:	Take-up unit, cast housing

2. HOUSINGS

F:	Flanged unit, cast housing
FA:	Flanged unit, cast housing
FC:	Flanged piloted unit, cast housing
FD:	Flanged unit, cast housing
FH:	Flanged unit, cast housing
FL:	Flanged unit, cast housing
FS:	Flanged piloted unit, cast housing
FU:	Flanged unit, cast housing
PF:	Flanged unit, pressed steel housing
PFL:	Flanged unit, pressed steel housing
RPF:	Flanged unit, pressed steel housing with rubber ring

3. SIZE

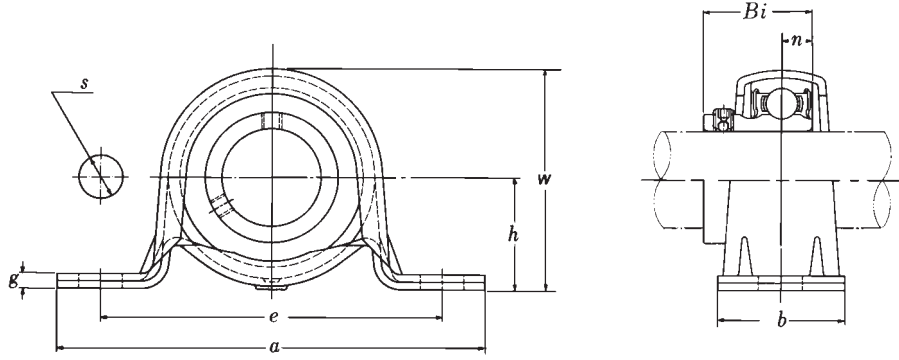
2:	Light
X:	Medium
3:	Heavy

4. SUFFIX

D1:	Relube type
T:	Relube type

* To order a bearing with a cylindrical O.D., add S to the part number (example: JELS).

Units: Millimeters
INCHES

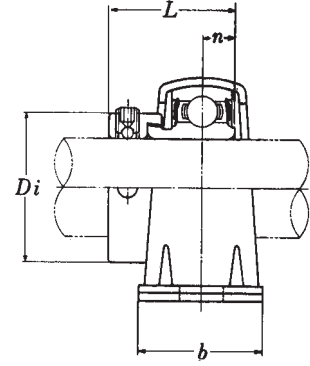
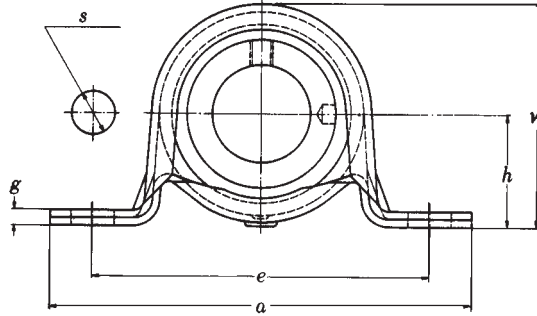


PILLOW BLOCKS - PRESSED STEEL HOUSING																
Shaft Dia.	Complete Pillow Block Number	Nominal Dimensions									Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)		Max. Radial Load ^① (lbs)
		<i>h</i>	<i>a</i>	<i>e</i>	<i>b</i>	<i>s</i>	<i>g</i>	<i>w</i>	<i>Bi</i>	<i>n</i>				Dynamic <i>C</i>	Static <i>C₀</i>	
12 ½	ASPP201 ASPP201-008	22.2 ⅞	86 3 ⅜	68 2 11/16	25 3 1/32	9.5 ⅜	3.2 .126	43.8 1 23/32	22 .866	6 .236	M8 ⅝	PP203 PP203	AS201 AS201-008	2,160	1,040	440
15 3/8 5/8	ASPP202 ASPP202-009 ASPP202-010	22.2 ⅞	86 3 ⅜	68 2 11/16	25 3 1/32	9.5 ⅜	3.2 .126	43.8 1 23/32	22 .866	6 .236	M8 ⅝	PP203 PP203 PP203	AS202 AS202-009 AS202-010	2,160	1,040	440
17 1 1/16	ASPP203 *ASPP203-011	22.2 ⅞	86 3 ⅜	68 2 11/16	25 3 1/32	9.5 ⅜	3.2 .126	43.8 1 23/32	22 .866	6 .236	M8 ⅝	PP203 PP203	AS203 AS203-011	2,160	1,040	440
20 ¾	ASPP204 ASPP204-012	25.4 1	98 3 27/32	76 3	32 1 ¼	9.5 ⅜	3.2 .126	50.5 2	25 .984	7 .276	M8 ⅝	PP204 PP204	AS204 AS204-012	2,890	1,500	550
25 13/16 7/8 15/16 1	ASPP205 ASPP205-013 ASPP205-014 ASPP205-015 ASPP205-100	28.6 1 1/8	108 4 ¼	86 3 ⅜	32 1 ¼	11 7/16	4 .157	56.6 2 7/32	27 1.063	7.5 .295	M10 ⅝	PP205 PP205 PP205 PP205 PP205	AS205 AS205-013 AS205-014 AS205-015 AS205-100	3,150	1,770	770
30 1 1/16 1 1/8 1 3/16 1 ¼	ASPP206 ASPP206-101 ASPP206-102 ASPP206-103 *ASPP206-104	33.3 1 5/16	117 4 19/32	95 3 ¾	38 1 ½	11 7/16	4 .157	66.3 2 5/8	29 1.142	8 .315	M10 ⅝	PP206 PP206 PP206 PP206 PP206	AS206 AS206-101 AS206-102 AS206-103 AS206-104	4,400	2,540	880
35 1 ¼ 1 5/16 1 ¾ 1 7/16	ASPP207 ASPP207-104 ASPP207-105 ASPP207-106 *ASPP207-107	39.7 1 9/16	129 5 3/32	106 4 3/16	42 1 21/32	11 7/16	4.6 .181	78 3 1/16	34 1.339	8.5 .335	M10 ⅝	PP207 PP207 PP207 PP207 PP207	AS207 AS207-104 AS207-105 AS207-106 AS207-107	5,750	3,440	990

① Axial load should be less than 1/3 of radial load.
* Unit with notched set screw as standard.

NTN
SERIES
AELPP2
ECCENTRIC
LOCKING
COLLAR
TYPE

Units: **Millimeters**
INCHES

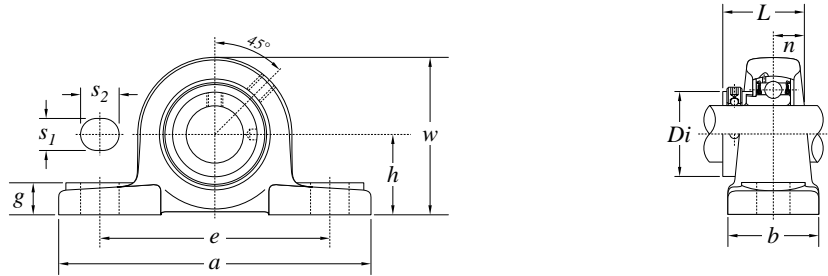


PILLOW BLOCKS - PRESSED STEEL HOUSING

Shaft Dia.	Complete Pillow Block Number	Nominal Dimensions									Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)		Max. Radial Load ^① (lbs)
		<i>h</i>	<i>a</i>	<i>e</i>	<i>b</i>	<i>s</i>	<i>g</i>	<i>w</i>	<i>L</i>	<i>n</i>				Dynamic <i>C</i>	Static <i>C₀</i>	
12 ½	AELPP201 AELPP201-008	22.2 ⅞	86 3 ⅜	68 2 11/16	25 3 1/2	9.5 ⅜	3.2 .126	43.8 1 23/32	28.6 1.126	6.5 .256	M8 5/16	PP203 PP203	AEL201 AEL201-008	2,160	1,040	440
15 9/16 5/8	AELPP202 AELPP202-009 AELPP202-010	22.2 ⅞	86 3 ⅜	68 2 11/16	25 3 1/2	9.5 ⅜	3.2 .126	43.8 1 23/32	28.6 1.126	6.5 .256	M8 5/16	PP203 PP203 PP203	AEL202 AEL202-009 AEL202-010	2,160	1,040	440
17 1 1/16	AELPP203 AELPP203-011	22.2 7/8	86 3 ⅜	68 2 11/16	25 3 1/2	9.5 ⅜	3.2 .126	43.8 1 23/32	28.6 1.126	6.5 .256	M8 5/16	PP203 PP203	AEL203 AEL203-011	2,160	1,040	440
20 ¾	AELPP204 AELPP204-012	25.4 1	98 3 27/32	76 3	32 1 ¼	9.5 ⅜	3.2 .126	50.5 2	31 1.220	7.5 .295	M8 5/16	PP204 PP204	AEL204 AEL204-012	2,890	1,500	550
25 1 3/16 7/8 1 1/8 1 1/4	AELPP205 AELPP205-013 AELPP205-014 AELPP205-015 AELPP205-100	28.6 1 ⅞	108 4 ¼	86 3 ⅜	32 1 ¼	11 7/16	4 .157	56.6 2 7/32	31 1.220	7.5 .295	M10 ¾	PP205 PP205 PP205 PP205	AEL205 AEL205-013 AEL205-014 AEL205-015 AEL205-100	3,150	1,770	770
30 1 1/16 1 1/8 1 3/16 1 ¼	AELPP206 AELPP206-101 AELPP206-102 AELPP206-103 AELPP206-104	33.3 1 9/16	117 4 19/32	95 3 ¾	38 1 ½	11 7/16	4 .157	66.3 2 ⅝	35.7 1.406	9 .354	M10 ¾	PP206 PP206 PP206 PP206 PP206	AEL206 AEL206-101 AEL206-102 AEL206-103 AEL206-104	4,400	2,540	880
35 1 ¼ 1 5/16 1 ¾ 1 7/16	AELPP207 AELPP207-104 AELPP207-105 AELPP207-106 AELPP207-107	39.7 1 9/16	129 5 3/32	106 4 3/16	42 1 21/32	11 7/16	4.6 .181	78 3 1/16	38.9 1.531	9.5 .374	M10 ¾	PP207 PP207 PP207 PP207	AEL207 AEL207-104 AEL207-105 AEL207-106 AEL207-107	5,750	3,440	990

① Axial load should be less than 1/3 of radial load.

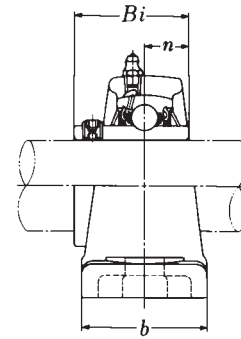
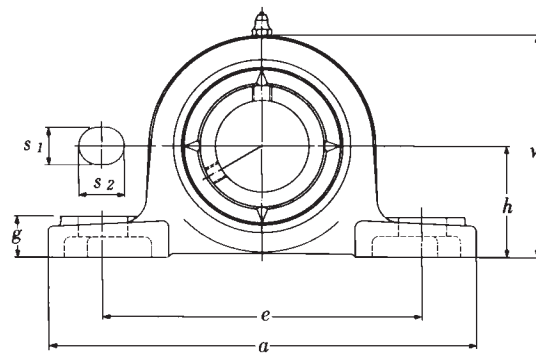
Units: **Millimeters**
INCHES



PILLOW BLOCKS - CAST HOUSING																
Shaft Dia.	Complete Pillow Block Number	Nominal Dimensions											Bolt Size	Bearing Number	Basic Load Ratings (lbs)	
		<i>h</i>	<i>a</i>	<i>e</i>	<i>b</i>	<i>s</i> ₁	<i>s</i> ₂	<i>g</i>	<i>w</i>	<i>Di</i>	<i>L</i>	<i>n</i>			<i>C</i> _{Dynamic}	<i>C</i> _{Static}
20 3/4	JELP204D1 JELP204-012T	33.3 1 5/16	127 5	95 3 3/4	38 1 1/2	13 1/2	16 5/8	14 9/16	65 2 5/16	33.3 1.31	43.7 1.720	17.1 0.673	M10 3/8	JEL204D1 JEL204-012D1	2,890	1,500
25 1 3/16 7/8 1 5/16 1	JELP205D1 JELP205-013T JELP205-014T JELP205-015T JELP205-100T	36.5 1 7/16	140 5 1/2	105 4 1/8	38 1 1/2	13 1/2	16 5/8	15 1 1/2	71 2 25/32	38.1 1.50	44.4 1.748	17.5 0.689	M10 3/8	JEL205D1 JEL205-013D1 JEL205-014D1 JEL205-015D1 JEL205-100D1	3,150	1,770
30 1 1/16 1 1/8 1 3/16 1 1/4	JELP206D1 JELP206-101T JELP206-102T JELP206-103T JELP206-104T	42.9 1 11/16	165 6 1/2	121 4 3/4	48 1 7/8	17 2 1/32	20 25/32	17 2 1/32	83 3 3/32	44.5 1.75	48.4 1.906	18.3 0.720	M14 1/2	JEL206D1 JEL206-101D1 JEL206-102D1 JEL206-103D1 JEL206-104D1	4,400	2,540
35 1 1/4 1 5/16 1 3/8 1 7/16	JELP207D1 JELP207-104T JELP207-105T JELP207-106T JELP207-107T	47.6 1 7/8	167 6 5/16	127 5	48 1 7/8	17 2 1/32	20 25/32	18 2 3/32	93 3 2 1/32	55.6 2.19	51.1 2.012	18.8 0.740	M14 1/2	JEL207D1 JEL207-104D1 JEL207-105D1 JEL207-106D1 JEL207-107D1	5,750	3,450
40 1 1/2 1 9/16	JELP208D1 JELP208-108T JELP208-109T	49.2 1 15/16	184 7 1/4	137 5 13/32	54 2 1/8	17 2 1/32	20 25/32	18 2 3/32	98 3 27/32	60.2 2.37	56.3 2.217	21.4 0.843	M14 1/2	JEL208D1 JEL208-108D1 JEL208-109D1	6,550	4,000
45 1 5/8 1 1 1/16 1 3/4	JELP209D1 JELP209-110T JELP209-111T JELP209-112T	54 2 1/8	190 7 15/32	146 5 3/4	54 2 1/8	17 2 1/32	20 25/32	20 25/32	106 4 3/16	63.5 2.50	56.3 2.217	21.4 0.843	M14 1/2	JEL209D1 JEL209-110D1 JEL209-111D1 JEL209-112D1	7,380	4,580
50 1 13/16 1 7/8 1 15/16 2	JELP210D1 JELP210-113T JELP210-114T JELP210-115T JELP210-200T	57.2 2 1/4	206 8 1/8	159 6 1/4	60 2 3/8	20 25/32	23 29/32	21 1 3/16	114 4 1/2	69.9 2.75	62.7 2.469	24.6 0.969	M16 5/8	JEL210D1 JEL210-113D1 JEL210-114D1 JEL210-115D1 JEL210-200D1	7,930	5,220
55 2 2 1/16 2 1/8 2 3/16	JELP211D1 JELP211-200T JELP211-201T JELP211-202T JELP211-203T	63.5 2 1/2	219 8 5/8	171 6 23/32	60 2 3/8	20 25/32	23 29/32	23 29/32	126 4 3 1/32	76.2 3.00	71.4 2.811	27.8 1.094	M16 5/8	JEL211D1 JEL211-200D1 JEL211-201D1 JEL211-202D1 JEL211-203D1	9,810	6,570
60 2 1/4 2 3/8 2 7/16	JELP212D1 JELP212-204T JELP212-206T JELP212-207T	69.8 2 3/4	241 9 1/2	184 7 1/4	70 2 3/4	20 25/32	23 29/32	25 3 1/32	138 5 7/16	84.1 3.31	77.8 3.063	31 1.220	M16 5/8	JEL212D1 JEL212-204D1 JEL212-206D1 JEL212-207D1	11,800	8,150



Units: **Millimeters**
INCHES

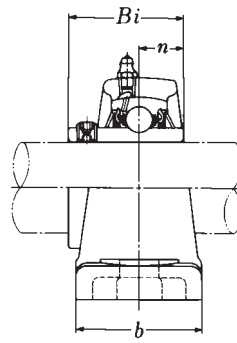
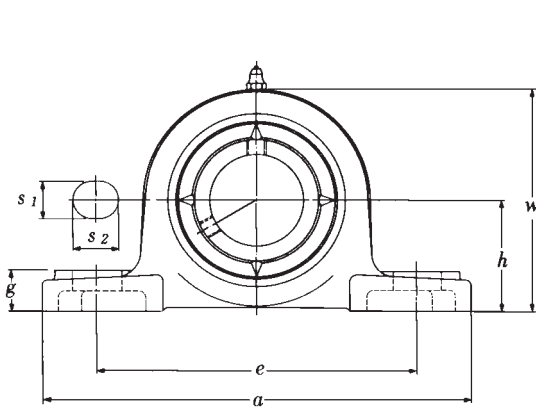


PILLOW BLOCKS - CAST HOUSING

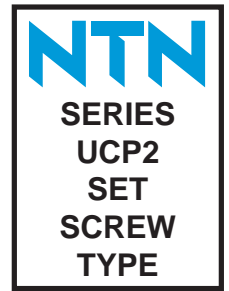
Shaft Dia.	Complete Pillow Block Number	Nominal Dimensions										Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		<i>h</i>	<i>a</i>	<i>e</i>	<i>b</i>	<i>s</i> ₁	<i>s</i> ₂	<i>g</i>	<i>w</i>	<i>Bi</i>	<i>n</i>				Dynamic <i>C</i>	Static <i>C</i> ₀
12 ½	UCP201D1 UCP201-008T	30.2 1 ⅜	127 5	95 3 ¾	38 1 ½	13 ½	16 ⅝	14 ⅞	62 2 ⅞	31 1.220	12.7 .500	M10 ⅜	P203D1 P203T	UC201D1 UC201-008D1	2,890	1,500
15 ⅝ ⅝	UCP202D1 UCP202-009T UCP202-010T	30.2 1 ⅜	127 5	95 3 ¾	38 1 ½	13 ½	16 ⅝	14 ⅞	62 2 ⅞	31 1.220	12.7 .500	M10 ⅜	P203D1 P203T P203T	UC202D1 UC202-099D1 UC202-010D1	2,890	1,500
17 1 ¼	UCP203D1 UCP203-011T	30.2 1 ⅜	127 5	95 3 ¾	38 1 ½	13 ½	16 ⅝	14 ⅞	62 2 ⅞	31 1.220	12.7 .500	M10 ⅜	P203D1 P203T	UC203D1 UC203-011D1	2,890	1,500
20 ¾	UCP204D1 UCP204-012T	33.3 1 ⅝	127 5	95 3 ¾	38 1 ½	13 ½	16 ⅝	14 ⅞	65 2 ⅞	31 1.220	12.7 .500	M10 ⅜	P204D1 P204T	UC204D1 UC204-012D1	2,890	1,500
25 1 ¾ ⅞ 1 ⅝ 1	UCP205D1 UCP205-013T UCP205-014T UCP205-015T UCP205-100T	36.5 1 ⅞	140 5 ½	105 4 ⅞	38 1 ½	13 ½	16 ⅝	15 1 ½	71 2 ⅝	34 1.339	14.3 .563	M10 ⅜	P205D1 P205T P205T P205T P205T	UC205D1 UC205-013D1 UC205-014D1 UC205-015D1 UC205-100D1	3,150	1,770
30 1 ½ 1 ½ 1 ¾ 1 ¼	UCP206D1 UCP206-101T UCP206-102T UCP206-103T *UCP206-104T	42.9 1 1 ⅞	165 6 ½	121 4 ¾	48 1 ⅞	17 2 ½	20 2 ⅝	17 2 ½	83 3 ⅞	38.1 1.500	15.9 .626	M14 ½	P206D1 P206T P206T P206T P206T	UC206D1 UC206-101D1 UC206-102D1 UC206-103D1 UC206-104D1	4,400	2,540
35 1 ¼ 1 ⅝ 1 ¾ 1 ⅞	UCP207D1 UCP207-104T UCP207-105T UCP207-106T *UCP207-107T	47.6 1 ⅞	167 6 ⅞	127 5	48 1 ⅞	17 2 ½	20 2 ⅝	18 2 ¾	93 3 2 ½	42.9 1.689	17.5 .689	M14 ½	P207D1 P207T P207T P207T P207T	UC207D1 UC207-104D1 UC207-105D1 UC207-106D1 UC207-107D1	5,750	3,440
40 1 ½ 1 ⅞	UCP208D1 UCP208-108T UCP208-109T	49.2 1 1 ⅞	184 7 ¼	137 5 1 ½	54 2 ⅞	17 2 ½	20 2 ⅝	18 2 ¾	98 3 2 ⅞	49.2 1.937	19 .748	M14 ½	P208D1 P208T P208T	UC208D1 UC208-108D1 UC208-109D1	6,550	4,000
45 1 ⅝ 1 1 ¼ 1 ¾	UCP209D1 UCP209-110T UCP209-111T UCP209-112T	54 2 ⅞	190 7 1 ½	146 5 ¾	54 2 ⅞	17 2 ½	20 2 ⅝	20 2 ⅝	106 4 ⅞	49.2 1.937	19 .748	M14 ½	P209D1 P209T P209T P209T	UC209D1 UC209-110D1 UC209-111D1 UC209-112D1	7,350	4,590
50 1 1 ¾ 1 ⅞ 1 1 ⅝ 2	UCP210D1 UCP210-113T UCP210-114T UCP210-115T UCP210-200T	57.2 2 ¼	206 8 ⅞	159 6 ¼	60 2 ¾	20 2 ⅝	23 2 ⅞	21 1 ¾	114 4 ½	51.6 2.031	19 .748	M16 ⅝	P210D1 P210T P210T P210T P210T	UC210D1 UC210-113D1 UC210-114D1 UC210-115D1 UC210-200D1	7,900	5,220
55 2 2 1 ¼ 2 ½ 2 ¾	UCP211D1 UCP211-200T UCP211-201T UCP211-202T UCP211-203T	63.5 2 ½	219 8 ⅞	171 6 2 ⅞	60 2 ¾	20 2 ⅝	23 2 ⅞	23 2 ⅞	126 4 3 ⅞	55.6 2.189	22.2 .874	M16 ⅝	P211D1 P211T P211T P211T P211T	UC211D1 UC211-200D1 UC211-201D1 UC211-202D1 UC211-203D1	9,750	6,570
60 2 ¼ 2 ¾ 2 ⅞	UCP212D1 UCP212-204T UCP212-206T *UCP212-207T	69.8 2 ¾	241 9 ½	184 7 ¼	70 2 ¾	20 2 ⅝	23 2 ⅞	25 2 ⅞	138 5 ⅞	65.1 2.563	25.4 1.000	M16 ⅝	P212D1 P212T P212T P212T	UC212D1 UC212-204D1 UC212-206D1 UC212-207D1	11,800	8,100

* Unit with notched set screw as standard.

Continued next page ...



Units: **Millimeters**
INCHES



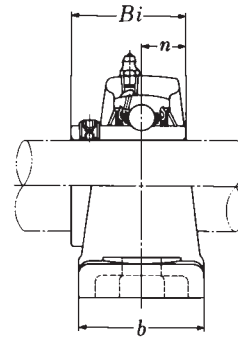
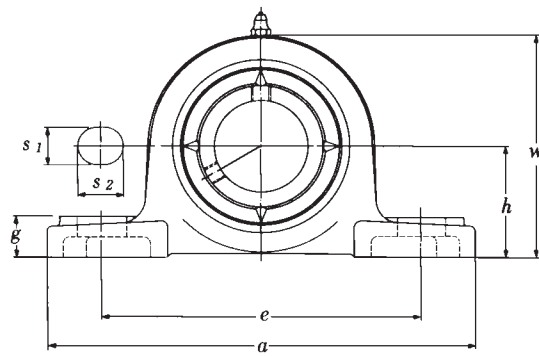
PILLOW BLOCKS - CAST HOUSING

Shaft Dia.	Complete Pillow Block Number	Nominal Dimensions										Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		<i>h</i>	<i>a</i>	<i>e</i>	<i>b</i>	<i>s</i> ₁	<i>s</i> ₂	<i>g</i>	<i>w</i>	<i>Bi</i>	<i>n</i>				Dynamic <i>C</i>	Static <i>C</i> ₀
65 2 1/2	UCP213D1 UCP213-208T	76.2 3	265 10 7/16	203 8	70 2 3/4	25 3 1/2	28 1 3/2	27 1 1/16	151 5 15/16	65.1 2.563	25.4 1.000	M20 3/4	P213D1 P213T	UC213D1 UC213-208D1	12,900	9,000
70 2 15/16 2 3/4	UCP214D1 UCP214-211T UCP214-212T	79.4 3 1/8	266 10 15/32	210 8 9/32	72 2 27/32	25 3 1/2	28 1 3/2	27 1 1/16	157 6 3/16	74.6 2.937	30.2 1.189	M20 3/4	P214D1 P214T P214T	UC214D1 UC214-211D1 UC214-211D1	14,000	9,900
75 2 15/16 3	UCP215D1 UCP215-215T UCP215-300T	82.6 3 1/4	275 10 13/16	217 8 17/32	74 2 29/32	25 3 1/2	28 1 3/2	28 1 3/2	163 6 13/32	77.8 3.063	33.3 1.311	M20 3/4	P215D1 P215T P215T	UC215D1 UC215-215D1 UC215-300D1	14,900	11,100
80 3 1/8	UCP216D1 UCP216-302T	88.9 3 1/2	292 11 1/2	232 9 1/8	78 3 1/16	25 3 1/2	28 1 3/2	30 1 3/16	175 6 7/8	82.6 3.252	33.3 1.311	M20 3/4	P216D1 P216T	UC216D1 UC216-302D1	16,300	11,900
85 3 1/4	UCP217D1 UCP217-304T	95.2 3 3/4	310 12 7/32	247 9 23/32	83 3 9/32	25 3 1/2	28 1 3/2	32 1 1/4	187 7 3/8	85.7 3.374	34.1 1.343	M20 3/4	P217D1 P217T	UC217D1 UC217-304D1	18,700	14,400
90 3 1/2	UCP218D1 UCP218-308T	101.6 4	327 12 7/8	262 10 5/16	88 3 15/32	27 1 1/16	30 1 3/16	33 1 5/16	200 7 7/8	96 3.780	39.7 1.563	M22 7/8	P218D1 P218T	UC218D1 UC218-308D1	21,600	16,100

* Unit with notched set screw as standard.



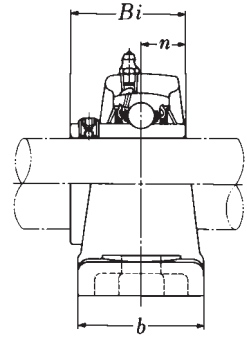
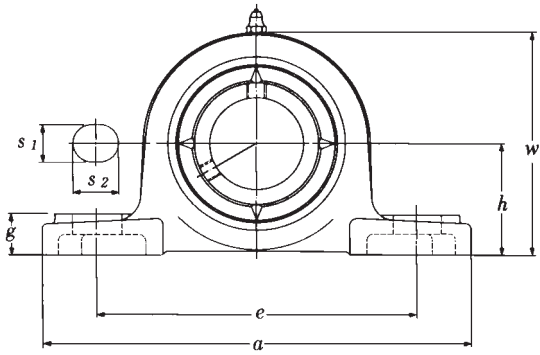
Units: **Millimeters**
INCHES



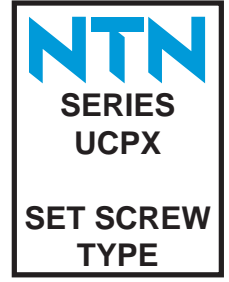
PILLOW BLOCKS - CAST HOUSING

Shaft Dia.	Complete Pillow Block Number	Nominal Dimensions										Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		<i>h</i>	<i>a</i>	<i>e</i>	<i>b</i>	<i>s₁</i>	<i>s₂</i>	<i>g</i>	<i>w</i>	<i>Bi</i>	<i>n</i>				Dynamic <i>C</i>	Static <i>C₀</i>
25 1 3/16 7/8 15/16 1	UCPX05D1 UCPX05-013T UCPX05-014T UCPX05-015T UCPX05-100T	44.4 1 3/4	159 6 1/4	119 4 11/16	51 2	17 21/32	20 25/32	18 23/32	85 3 1/2	38.1 1.500	15.9 0.626	M14 1/2	PX05D1 PX05T PX05T PX05T PX05T	UCX05D1 UCX05-013D1 UCX05-014D1 UCX05-015D1 UCX05-100D1	4,390	2,540
30 1 1/16 1 1/8 1 3/16 1 1/4	UCPX06D1 UCPX06-101T UCPX06-102T UCPX06-103T UCPX06-104T	47.6 1 7/8	175 6 7/8	127 5	57 2 1/4	17 21/32	20 25/32	20 25/32	93 3 21/32	42.9 1.689	17.5 0.689	M14 1/2	PX06D1 PX06T PX06T PX06T PX06T	UCX06D1 UCX06-101D1 UCX06-102D1 UCX06-103D1 UC207-104D1	5,780	3,440
35 1 3/16 1 3/8 1 7/16	UCPX07D1 UCPX07-105T UCPX07-106T UCPX07-107T	54 2 1/8	203 8	144 5 11/16	57 2 1/4	17 21/32	20 25/32	21 13/16	105 4 1/8	49.2 1.937	19 0.748	M14 1/2	PX07D1 PX07T PX07T PX07T	UCX07D1 UCX07-105D1 UCX07-106D1 UCX07-107D1	6,550	4,000
40 1 1/2 1 9/16	UCPX08D1 UCPX08-108T UCPX08-109T	58.7 2 5/16	222 8 3/4	156 6 1/8	67 2 5/8	20 25/32	23 29/32	26 1 1/32	111 4 3/8	49.2 1.937	19 0.748	M16 5/8	PX08D1 PX08T PX08T	UCX08D1 UCX08-108D1 UCX08-109D1	7,310	4,590
45 1 5/8 1 11/16 1 3/4 1 13/16	UCPX09D1 UCPX09-110T UCPX09-111T UCPX09-112T UCPX09-113T	58.7 2 5/16	222 8 3/4	156 6 1/8	67 2 5/8	20 25/32	23 29/32	26 1 1/32	116 4 9/16	51.6 2.031	19 0.748	M16 5/8	PX09D1 PX09T PX09T PX09T PX09T	UCX09D1 UCX09-110D1 UCX09-111D1 UCX09-112D1 UC210-113D1	7,870	5,220
50 1 7/8 1 15/16 2	UCPX10D1 UCPX10-114T UCPX10-115T UCPX10-200T	63.5 2 1/2	241 9 1/2	171 6 3/4	73 2 7/8	20 25/32	23 29/32	27 1 1/16	126 4 3/32	55.6 2.189	22.2 0.874	M16 5/8	PX10D1 PX10T PX10T PX10T	UCX10D1 UCX10-114D1 UCX10-115D1 UC211-200D1	9,780	6,570
55 2 1/16 2 1/8 2 3/16 2 1/4 2 5/16	UCPX11D1 UCPX11-201T UCPX11-202T UCPX11-203T UCPX11-204T UCPX11-205T	69.8 2 3/4	260 10 1/4	184 7 1/4	79 3 1/8	25 31/32	28 1 3/32	30 1 3/16	137 5 13/32	65.1 2.563	25.4 1.000	M20 3/4	PX11D1 PX11T PX11T PX11T PX11T PX11T	UCX11D1 UCX11-201D1 UCX11-202D1 UCX11-203D1 UC212-204D1 UC212-205D1	11,810	8,100
60 2 3/8 2 7/16	UCPX12D1 UCPX12-206T UCPX12-207T	76.2 3	286 11 1/4	203 8	83 3 1/4	25 31/32	28 1 3/32	33 1 5/16	151 5 15/16	65.1 2.563	25.4 1.000	M20 3/4	PX12D1 PX12T PX12T	UCX12D1 UCX12-206D1 UCX12-207D1	12,930	9,000
65 2 1/2 2 3/16	UCPX13D1 UCPX13-208T UCPX13-209T	76.2 3	286 11 1/4	203 8	83 3 1/4	25 31/32	28 1 3/32	33 1 5/16	154 6 1/16	74.6 2.937	30.2 1.189	M20 3/4	PX13D1 PX13T PX13T	UCX13D1 UCX13-208D1 UCX13-209D1	13,940	9,900
70 2 5/8 2 11/16 2 3/4	UCPX14D1 UCPX14-210T UCPX14-211T UCPX14-212T	88.9 3 1/2	330 13	229 9	89 3 1/2	27 1 1/16	30 1 3/16	35 1 3/8	170 6 11/16	77.8 3.063	33.3 1.311	M22 7/8	PX14D1 PX14T PX14T PX14T	UCX14D1 UCX14-210D1 UCX14-211D1 UCX14-212D1	14,840	11,130
75 2 13/16 2 7/8 2 15/16 3	UCPX15D1 UCPX15-213T UCPX15-214T UCPX15-215T UCPX15-300T	88.9 3 1/2	330 13	229 9	89 3 1/2	27 1 1/16	30 1 3/16	35 1 3/8	175 6 7/8	82.6 3.252	33.3 1.311	M22 7/8	PX15D1 PX15T PX15T PX15T PX15T	UCX15D1 UCX15-213D1 UCX15-214D1 UCX15-215D1 UCX15-300D1	16,310	11,920

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Units: **Millimeters**
INCHES

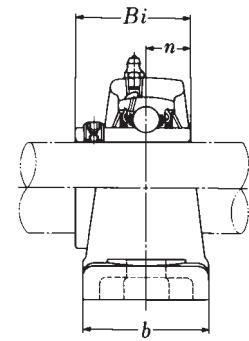
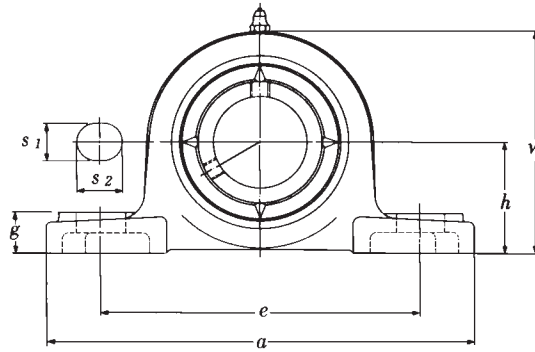


PILLOW BLOCKS - CAST HOUSING

Shaft Dia.	Complete Pillow Block Number	Nominal Dimensions										Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		<i>h</i>	<i>a</i>	<i>e</i>	<i>b</i>	<i>s₁</i>	<i>s₂</i>	<i>g</i>	<i>w</i>	<i>Bi</i>	<i>n</i>				<i>C</i>	<i>C₀</i>
80 3 1/8 3 7/16 3 1/4	UCPX16D1 UCPX16-302T UCPX16-303T UCPX16-304T	101.6 4	381 15	283 11 1/8	102 4	27 1 1/16	30 1 3/16	40 1 9/16	194 7 5/8	85.7 3.374	34.1 1.343	M22 7/8	PX16D1 PX16T PX16T PX16T	UCX16D1 UCX16-302D1 UCX16-303D1 UC217-304D1	18,780	14,390
85 3 5/16 3 7/16	UCPX17D1 UCPX17-305T UCPX17-307T	101.6 4	381 15	283 11 1/8	102 4	27 1 1/16	30 1 3/16	40 1 9/16	200 7 7/8	96 3.780	39.7 1.563	M22 7/8	PX17D1 PX17T PX17T	UCX17D1 UCX17-305D1 UCX17-307D1	21,590	16,080
90 3 1/2	UCPX18D1 UCPX18-308T	101.6 4	381 15	283 11 1/8	111 4 3/8	27 1 1/16	30 1 3/16	40 1 9/16	206 8 1/8	104 4.094	42.9 1.689	M22 7/8	PX18D1 PX18T	UCX18D1 UCX18-308D1	24,520	18,440
100 3 7/8 3 15/16 4	UCPX20D1 UCPX20-314T UCPX20-315T UCPX20-400T	127 5	432 17	337 13 1/4	121 4 3/4	33 1 5/16	36 1 13/32	45 1 25/32	244 9 19/32	117.5 4.626	49.2 1.937	M27 1	PX20D1 PX20T PX20T	UCX20D1 UCX20-314D1 UCX20-315D1 UCX20-400D1	29,910	23,620

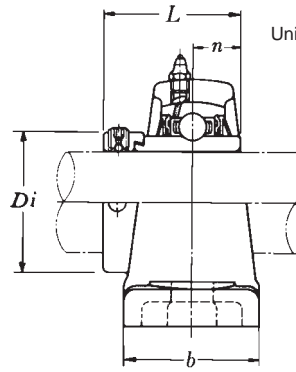
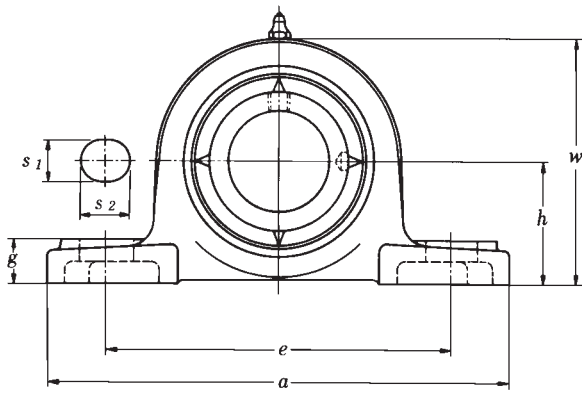


Units: **Millimeters**
INCHES



PILLOW BLOCKS - CAST HOUSING

Shaft Dia.	Complete Pillow Block Number	Nominal Dimensions										Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		<i>h</i>	<i>a</i>	<i>e</i>	<i>b</i>	<i>s₁</i>	<i>s₂</i>	<i>g</i>	<i>w</i>	<i>Bi</i>	<i>n</i>				Dynamic <i>C</i>	Static <i>C₀</i>
25 7/8 1 5/16 1	UCP305D1 UCP305-014T UCP305-015T UCP305-100T	45 1 25/32	175 6 7/8	132 5 3/16	45 1 25/32	17 2 1/32	20 25/32	15 19/32	85 3 1 1/2	38 1.496	15 .591	M14 1/2	P305D1 P305T P305T P305T	UC305D1 UC305-014D1 UC305-015D1 UC305-100D1	4,750	2,460
30 1 1/8 1 3/16	UCP306D1 UCP306-102T UCP306-103T	50 1 31/32	180 7 3/32	140 5 1/2	50 1 31/32	17 2 1/32	20 25/32	18 23/32	95 3 3/4	43 1.693	17 .669	M14 1/2	P306D1 P306T P306T	UC306D1 UC306-102D1 UC306-102D1	6,000	3,400
35 1 1/4 1 5/16 1 3/8 1 7/16	UCP307D1 UCP307-104T UCP307-105T UCP307-106T UCP307-107T	56 2 7/32	210 8 9/32	160 6 5/16	56 2 7/32	17 2 1/32	25 3 1/32	20 25/32	106 4 3/16	48 1.890	19 .748	M14 1/2	P307D1 P307T P307T P307T P307T	UC307D1 UC307-104D1 UC307-105D1 UC307-106D1 UC307-107D1	7,500	4,300
40 1 1/2	UCP308D1 UCP308-108T	60 2 3/8	220 8 21/32	170 6 11/16	60 2 3/8	17 2 1/32	27 1 1/16	22 7/8	116 4 9/16	52 2.047	19 .748	M14 1/2	P308D1 P308T	UC308D1 UC308-108D1	9,150	5,400
45 1 5/8 1 1 1/16 1 3/4	UCP309D1 UCP309-110T UCP309-111T UCP309-112T	67 2 5/8	245 9 21/32	190 7 19/32	67 2 5/8	20 25/32	30 1 3/16	24 19/16	129 5 3/32	57 2.244	22 .866	M16 5/8	P309D1 P309T P309T P309T	UC309D1 UC309-110D1 UC309-111D1 UC309-112D1	11,900	7,200
50 1 7/8 1 15/16	UCP310D1 UCP310-114T UCP310-115T	75 2 5/16	275 10 13/16	212 8 11/32	75 2 5/16	20 25/32	35 1 3/8	27 1 1/16	143 5 5/8	61 2.402	22 .866	M16 5/8	P310D1 P310T P310T	UC310D1 UC310-114D1 UC310-115D1	13,900	8,660
55 2 2 1/8 2 3/16	UCP311D1 UCP311-200T UCP311-202T UCP311-203T	80 3 3/32	310 12 7/32	236 9 9/32	80 3 5/32	20 25/32	38 1 1/2	30 1 3/16	154 6 1/16	66 2.598	25 .984	M16 5/8	P311D1 P311T P311T P311T	UC311D1 UC311-200D1 UC311-202D1 UC311-203D1	16,100	10,100
60 2 1/4 2 3/8 2 7/16	UCP312D1 UCP312-204T UCP312-206T UCP312-207T	85 3 11/32	330 13	250 9 27/32	85 3 11/32	25 3 1/32	38 1 1/2	32 1 1/4	165 6 1/2	71 2.795	26 1.024	M20 3/4	P312D1 P312T P312T P312T	UC312D1 UC312-204D1 UC312-206D1 UC312-207D1	18,400	11,700
65 2 1/2	UCP313D1 UCP313-208T	90 3 17/32	340 13 3/8	260 10 1/4	90 3 17/32	25 3 1/32	38 1 1/2	33 1 5/16	176 6 15/16	75 2.953	30 1.181	M20 3/4	P313D1 P313T	UC313D1 UC313-208D1	20,800	13,400
70 2 11/16 2 3/4	UCP314D1 UCP314-211T UCP314-212T	95 3 3/4	360 14 3/16	280 11 1/32	90 3 17/32	27 1 1/16	40 1 9/16	35 1 3/8	187 7 3/8	78 3.071	33 1.299	M22 7/8	P314D1 P314T P314T	UC314D1 UC314-211D1 UC314-212D1	23,400	15,300
75 2 5/16 3	UCP315D1 UCP315-215T UCP315-300T	100 3 5/16	380 14 31/32	290 11 13/32	100 3 5/16	27 1 1/16	40 1 9/16	35 1 3/8	198 7 25/32	82 3.228	32 1.260	M22 7/8	P315D1 P315T P315T	UC315D1 UC315-215D1 UC315-215D1	25,500	17,400
80 3 1/8 3 3/16	UCP316D1 UCP316-302T UCP316-303T	106 4 3/16	400 15 3/4	300 11 13/16	110 4 11/32	27 1 1/16	40 1 9/16	40 1 9/16	210 8 9/32	86 3.386	34 1.339	M22 7/8	P316D1 P316T P316T	UC316D1 UC316-302D1 UC316-303D1	27,600	19,500
85 3 1/4	UCP317D1 UCP317-304T	112 4 13/32	420 16 17/32	320 12 19/32	110 4 11/32	33 1 5/16	45 1 25/32	40 1 9/16	220 8 21/32	96 3.780	40 1.575	M27 1	P317D1 P317T	UC317D1 UC317-304D1	29,800	21,800
90 3 7/16 3 1/2	UCP318D1 UCP318-307T UCP318-308T	118 4 21/32	430 16 15/16	330 13	110 4 11/32	33 1 5/16	45 1 25/32	45 1 25/32	235 9 1/4	96 3.780	40 1.575	M27 1	P318D1 P318T P318T	UC318D1 UC318-307D1 UC318-308D1	32,000	24,100
95 3 3/4	UCP319D1 UCP319-312T	125 4 29/32	470 18 1/2	360 14 3/16	120 4 23/32	36 1 13/32	50 1 31/32	45 1 25/32	250 9 27/32	103 4.055	41 1.614	M30 1 1/8	P319D1 P319T	UC319D1 UC319-312D1	34,500	26,600
100 3 5/16 4	UCP320D1 UCP320-315T UCP320-400T	140 5 1/2	490 19 9/32	380 14 31/32	120 4 23/32	36 1 13/32	50 1 31/32	50 1 31/32	275 10 13/16	108 4.252	42 1.654	M30 1 1/8	P320D1 P320T P320T	UC320D1 UC320-315D1 UC320-400D1	39,000	31,500
105	UCP321D1	140	490	380	120	36	50	50	280	112	44	M30	P321D1	UC321D1	41,400	34,500
110	UCP322D1	150	520	400	140	40	55	55	300	117	46	M33	P322D1	UC322D1	46,100	40,500
120	UCP324D1	160	570	450	140	40	55	65	320	126	51	M33	P324D1	UC324D1	46,600	41,500
130	UCP326D1	180	600	480	140	40	55	75	355	135	54	M33	P326D1	UC326D1	51,500	48,000
140	UCP328D1	200	620	500	140	40	55	75	390	145	59	M33	P328D1	UC328D1	56,900	55,500



Units: Millimeters
INCHES

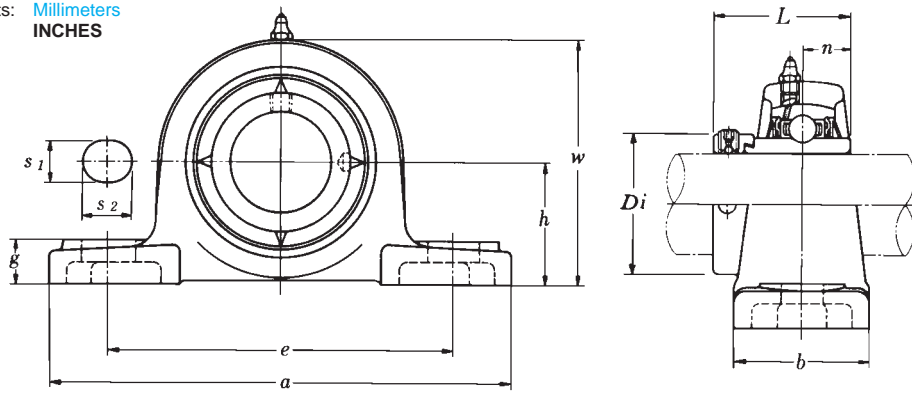


PILLOW BLOCKS - CAST HOUSING

Shaft Dia.	Complete Pillow Block Number	Nominal Dimensions											Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		<i>h</i>	<i>a</i>	<i>e</i>	<i>b</i>	<i>s</i> ₁	<i>s</i> ₂	<i>g</i>	<i>w</i>	<i>D</i> _i	<i>L</i>	<i>n</i>				<i>C</i>	<i>C</i> ₀
20 ¾	UEL204D1 UEL204-012T	33.3 1 ⅞	127 5	95 3 ¾	38 1 ½	13 ½	16 ⅝	14 ⅞	65 2 ⅞	33.3 1.31	43.7 1.720	17.1 .673	M10 ⅝	P204D1 P204T	UEL204D1 UEL204-012D1	2,890	1,500
25 1 ⅜ 7/8 1 ⅞ 1	UEL205D1 UEL205-013T UEL205-014T UEL205-015T UEL205-100T	36.5 1 7/16	140 5 ½	105 4 ⅞	38 1 ½	13 ½	16 ⅝	15 1 ⅝	71 2 5/8	38.1 1.50	44.4 1.748	17.5 .689	M10 ⅝	P205D1 P205T P205T P205T P205T	UEL205D1 UEL205-013D1 UEL205-014D1 UEL205-015D1 UEL205-100D1	3,150	1,770
30 1 1/8 1 1/8 1 3/8 1 1/4	UEL206D1 UEL206-101T UEL206-102T UEL206-103T UEL206-104T	42.9 1 11/16	165 6 ½	121 4 ¾	48 1 7/8	17 2 1/8	20 2 5/8	17 2 1/8	83 3 3/8	44.5 1.75	48.4 1.906	18.3 .720	M14 ½	P206D1 P206T P206T P206T P206T	UEL206D1 UEL206-101D1 UEL206-102D1 UEL206-103D1 UEL206-104D1	4,400	2,540
35 1 1/4 1 5/8 1 3/8 1 7/8	UEL207D1 UEL207-104T UEL207-105T UEL207-106T UEL207-107T	47.6 1 7/8	167 6 5/8	127 5	48 1 7/8	17 2 1/8	20 2 5/8	18 2 3/8	93 3 2 1/8	55.6 2.19	51.1 2.012	18.8 .740	M14 ½	P207D1 P207T P207T P207T P207T	UEL207D1 UEL207-104D1 UEL207-105D1 UEL207-106D1 UEL207-107D1	5,750	3,440
40 1 1/2 1 9/16	UEL208D1 UEL208-108T UEL208-109T	49.2 1 15/16	184 7 ¼	137 5 1 3/8	54 2 ½	17 2 1/8	20 2 5/8	18 2 3/8	98 3 2 7/8	60.2 2.37	56.3 2.217	21.4 .843	M14 ½	P208D1 P208T P208T	UEL208D1 UEL208-108D1 UEL208-109D1	6,550	4,000
45 1 5/8 1 1 1/8 1 3/4	UEL209D1 UEL209-110T UEL209-111T UEL209-112T	54 2 1/8	190 7 1 5/8	146 5 ¾	54 2 ½	17 2 1/8	20 2 5/8	20 2 5/8	106 4 1 1/8	63.5 2.50	56.3 2.217	21.4 .843	M14 ½	P209D1 P209T P209T P209T	UEL209D1 UEL209-110D1 UEL209-111D1 UEL209-112D1	7,350	4,590
50 1 1 3/8 1 7/8 1 1 1/8 2	UEL210D1 UEL210-113T UEL210-114T UEL210-115T UEL210-200T	57.2 2 ¼	206 8 1/8	159 6 ¼	60 2 ¾	20 2 5/8	23 2 9/8	21 1 3/8	114 4 ½	69.9 2.75	62.7 2.469	24.6 .969	M16 5/8	P210D1 P210T P210T P210T P210T	UEL210D1 UEL210-113D1 UEL210-114D1 UEL210-115D1 UEL210-200D1	7,900	5,220
55 2 2 1/8 2 1/8 2 3/8	UEL211D1 UEL211-200T UEL211-201T UEL211-202T UEL211-203T	63.5 2 ½	219 8 5/8	171 6 2 3/8	60 2 ¾	20 2 5/8	23 2 9/8	23 2 9/8	126 4 1 1/8	76.2 3.00	71.4 2.811	27.8 1.094	M16 5/8	P211D1 P211T P211T P211T P211T	UEL211D1 UEL211-200D1 UEL211-201D1 UEL211-202D1 UEL211-203D1	9,750	6,570
60 2 1/4 2 3/8 2 7/8	UEL212D1 UEL212-204T UEL212-206T UEL212-207T	69.8 2 ¾	241 9 ½	184 7 ¼	70 2 ¾	20 2 5/8	23 2 9/8	25 3 1/8	138 5 7/8	84.1 3.31	77.8 3.063	31 1.220	M16 5/8	P212D1 P212T P212T P212T	UEL212D1 UEL212-204D1 UEL212-206D1 UEL212-207D1	11,800	8,100
65 2 1/2	UEL213D1 UEL213-208T	76.2 3	265 10 7/16	203 8	70 2 ¾	25 3 1/8	28 1 3/8	27 1 1/8	151 5 1 1/8	97.0 3.82	85.7 3.374	34.15 1.344	M20 ¾	P213D1 P213T	UEL213D1 UEL213-208D1	12,900	9,000
70 2 1 1/8 2 ¾	UEL214D1 UEL214-211T UEL214-212T	79.4 3 1/8	266 10 1 5/8	210 8 3/8	72 2 2 7/8	25 3 1/8	28 1 3/8	27 1 1/8	157 6 3/8	97.0 3.82	85.7 3.374	34.15 1.344	M20 ¾	P214D1 P214T P214T	UEL214D1 UEL214-211D1 UEL214-212D1	14,000	9,900
75 2 1 5/8 3	UEL215D1 UEL215-215T UEL215-300T	82.6 3 ¼	275 10 1 3/8	217 8 1 7/8	74 2 2 9/8	25 3 1/8	28 1 3/8	28 1 3/8	163 6 1 3/8	97.0 3.82	92 3.622	37.3 1.469	M20 ¾	P215D1 P215T P215T	UEL215D1 UEL215-215D1 UEL215-300D1	14,900	11,130

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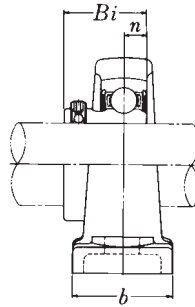
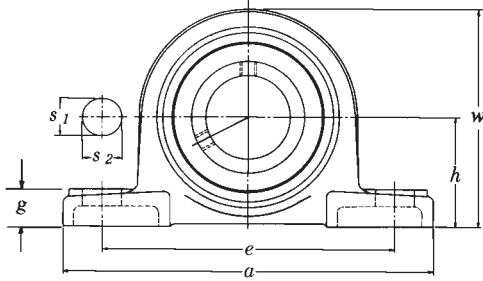
Units: **Millimeters**
INCHES



PILLOW BLOCKS - CAST HOUSING

Shaft Dia.	Complete Pillow Block Number	Nominal Dimensions											Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		<i>h</i>	<i>a</i>	<i>e</i>	<i>b</i>	<i>s₁</i>	<i>s₂</i>	<i>g</i>	<i>w</i>	<i>Di</i>	<i>L</i>	<i>n</i>				Dynamic <i>C</i>	Static <i>C₀</i>
25 7/8 1 1/16 1	UEL305D1 UEL305-014T UEL305-015T UEL305-100T	45 1 25/32	175 6 7/8	132 5 3/16	45 1 25/32	17 2 1/32	20 25/32	15 18/32	85 3 1 1/2	42.8 1.69	46.8 1.843	16.7 .657	M14 1/2	P305D1 P305T P305T P305T	UEL305D1 UEL305-014D1 UEL305-015D1 UEL305-100D1	4,750	2,460
30 1 1/8 1 3/16	UEL306D1 UEL306-102T UEL306-103T	50 1 3 1/2	180 7 3/32	140 5 1/2	50 1 3 1/2	17 2 1/32	20 25/32	18 23/32	95 3 3/4	50 1.97	50 1.969	17.5 .689	M14 1/2	P306D1 P306T P306T	UEL306D1 UEL306-102D1 UEL306-103D1	6,000	3,400
35 1 1/4 1 5/16 1 3/8 1 7/16	UEL307D1 UEL307-104T UEL307-105T UEL307-106T UEL307-107T	56 2 7/32	210 8 9/32	160 6 9/16	56 2 7/32	17 2 1/32	25 3 1/32	20 25/32	106 4 3/16	55 2.17	51.6 2.031	18.3 .720	M14 1/2	P307D1 P307T P307T P307T P307T	UEL307D1 UEL307-104D1 UEL307-105D1 UEL307-106D1 UEL307-107D1	7,500	4,300
40 1 1/2	UEL308D1 UEL308-108T	60 2 3/8	220 8 2 1/2	170 6 1 1/16	60 2 3/8	17 2 1/32	27 1 1/16	22 7/8	116 4 9/16	63.5 2.50	57.1 2.248	19.8 .780	M14 1/2	P308D1 P308T	UEL308D1 UEL308-108D1	9,150	5,400
45 1 5/8 1 1 1/16 1 3/4	UEL309D1 UEL309-110T UEL309-111T UEL309-112T	67 2 5/8	245 9 2 1/2	190 7 1 5/32	67 2 5/8	20 25/32	30 1 3/16	24 1 5/16	129 5 3/32	70 2.76	58.7 2.311	19.8 .780	M16 5/8	P309D1 P309T P309T P309T	UEL309D1 UEL309-110D1 UEL309-111D1 UEL309-112D1	11,900	7,200
50 1 7/8 1 15/16	UEL310D1 UEL310-114T UEL310-115T	75 2 1 1/16	275 10 1 3/16	212 8 1 1/2	75 2 15/16	20 25/32	35 1 3/8	27 1 1/16	143 5 5/8	76.2 3.00	66.6 2.622	24.6 .969	M16 5/8	P310D1 P310T P310T	UEL310D1 UEL310-114D1 UEL310-115D1	13,900	8,600
55 2 2 1/8 2 3/16	UEL311D1 UEL311-200T UEL311-202T UEL311-203T	80 3 3/32	310 12 7/32	236 9 9/32	80 3 3/32	20 25/32	38 1 1/2	30 1 3/16	154 6 1/16	83 3.27	73 2.874	27.8 1.094	M16 5/8	P311D1 P311T P311T P311T	UEL311D1 UEL311-200D1 UEL311-202D1 UEL311-203D1	16,100	10,100
60 2 1/4 2 3/8 2 7/16	UEL312D1 UEL312-204T UEL312-206T UEL312-207T	85 3 1 1/2	330 13	250 9 27/32	85 3 1 1/2	25 3 1/32	38 1 1/2	32 1 1/4	165 6 1/2	89 3.50	79.4 3.126	30.95 1.219	M20 3/4	P312D1 P312T P312T P312T	UEL312D1 UEL312-204D1 UEL312-206D1 UEL312-207D1	18,400	11,700
65 2 1/2	UEL313D1 UEL313-208T	90 3 1 7/32	340 13 3/8	260 10 1/4	90 3 17/32	25 3 1/32	38 1 1/2	33 1 5/16	176 6 15/16	97 3.82	85.7 3.374	32.55 1.281	M20 3/4	P313D1 P313T	UEL313D1 UEL313-208D1	20,800	13,400
70 2 1 1/16 2 3/4	UEL314D1 UEL314-211T UEL314-212T	95 3 3/4	360 14 3/16	280 11 1/32	90 3 17/32	27 1 1/16	40 1 9/16	35 1 3/8	187 7 3/8	102 4.00	92.1 3.626	34.15 1.344	M22 7/8	P314D1 P314T P314T	UEL314D1 UEL314-211D1 UEL314-212D1	23,400	15,300
75 2 15/16 3	UEL315D1 UEL315-215T UEL315-300T	100 3 1 5/16	380 14 3 1/2	290 11 1 3/32	100 3 15/16	27 1 1/16	40 1 9/16	35 1 3/8	198 7 25/32	113 4.45	100 3.937	37.3 1.469	M22 7/8	P315D1 P315T P315T	UEL315D1 UEL315-215D1 UEL315-300D1	25,500	17,400
80 3 1/8 3 3/16	UEL316D1 UEL316-302T UEL316-303T	106 4 3/16	400 15 3/4	300 11 1 3/16	110 4 1 1/2	27 1 1/16	40 1 9/16	40 1 9/16	210 8 9/32	119 4.69	106.4 4.189	40.5 1.594	M22 7/8	P316D1 P316T P316T	UEL316D1 UEL316-302D1 UEL316-303D1	27,600	19,500
85 3 1/4	UEL317D1 UEL317-304T	112 4 1 3/32	420 16 17/32	320 12 1 9/32	110 4 1 1/2	33 1 5/16	45 1 25/32	40 1 9/16	220 8 2 1/2	127 5.00	109.5 4.311	42.05 1.656	M27 1	P317D1 P317T	UEL317D1 UEL317-304D1	29,800	21,800
90 3 7/16 3 1/2	UEL318D1 UEL318-307T UEL318-308T	118 4 2 1/2	430 16 1 1/16	330 13	110 4 1 1/2	33 1 9/16	45 1 25/32	45 1 25/32	235 9 1/4	133 5.24	115.9 4.563	43.65 1.719	M27 1	P318D1 P318T P318T	UEL318D1 UEL318-307D1 UEL318-308D1	32,000	24,100
95 3 3/4	UEL319D1 UEL319-312T	125 4 29/32	470 18 1/2	360 14 3/16	120 4 2 3/32	36 1 1 3/32	50 1 3 1/32	45 1 25/32	250 9 27/32	140 5.50	122.3 4.815	38.9 1.531	M30 1 1/8	P319D1 P319T	UEL319D1 UEL319-312D1	34,500	26,600
100 3 15/16 4	UEL320D1 UEL320-315T UEL320-400T	140 5 1/2	490 19 9/32	380 14 3 1/2	120 4 2 3/32	36 1 1 3/32	50 1 3 1/32	50 1 3 1/32	275 10 1 1/16	146 5.75	128.6 5.063	50 1.969	M30 1 1/8	P320D1 P320T P320T	UEL320D1 UEL320-315D1 UEL320-400D1	39,000	31,500
105	UEL321D1	140	490	380	120	36	50	50	280	157	139.7	48.4	M30	P321D1	UEL321D1	41,500	34,500
110	UEL322D1	150	520	400	140	40	55	55	300	168	141.3	49.2	M33	P322D1	UEL322D1	46,000	40,500

Units: Millimeters
INCHES



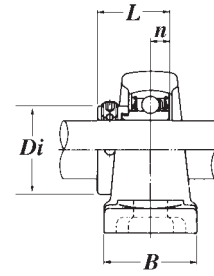
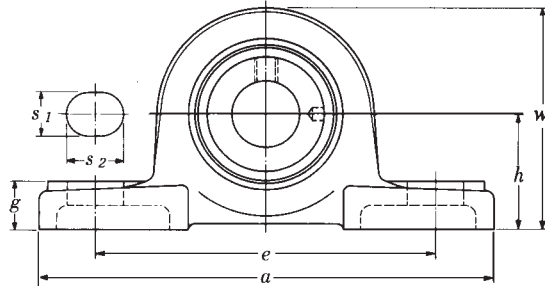
PILLOW BLOCKS - CAST HOUSING (LOW CENTER HEIGHT)

Shaft Dia.	Complete Pillow Block Number	Nominal Dimensions										Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		<i>h</i>	<i>a</i>	<i>e</i>	<i>b</i>	<i>s</i> ₁	<i>s</i> ₂	<i>g</i>	<i>w</i>	<i>Bi</i>	<i>n</i>				<i>C</i>	<i>C</i> ₀
12 ½	ASPL201 ASPL201-008	26.99 1 1/16	121 4 3/4	89 3 1/2	35 1 3/8	11 7/16	14 9/16	13 1/2	54 2 1/8	22 .866	6 .236	M10 3/8	PL201 PL201	AS201 AS201-008	2,160	1,040
15 9/16 5/8	ASPL202 ASPL202-009 ASPL202-010	26.99 1 1/16	121 4 3/4	89 3 1/2	35 1 3/8	11 7/16	14 9/16	13 1/2	54 2 1/8	22 .866	6 .236	M10 3/8	PL201 PL201 PL201	AS202 AS202-009 AS202-010	2,160	1,040
17 1 1/16	ASPL203 *ASPL203-011	26.99 1 1/16	121 4 3/4	89 3 1/2	35 1 3/8	11 7/16	14 9/16	13 1/2	54 2 1/8	22 .866	6 .236	M10 3/8	PL201 PL201	AS203 AS203-011	2,160	1,040
20 3/4	ASPL204 ASPL204-012	31.75 1 1/4	127 5	95 3 3/4	38 1 1/2	13 1/2	16 5/8	14 9/16	64 2 1/2	25 .984	7 .276	M10 3/8	PL204 PL204	AS204 AS204-012	2,890	1,500
25 1 3/16 7/8 1 1/4 1	ASPL205 ASPL205-013 ASPL205-014 ASPL205-015 ASPL205-100	33.34 1 5/16	140 5 1/2	105 4 1/8	38 1 1/2	13 1/2	16 5/8	15 19/32	68 2 11/16	27 1.063	7.5 .295	M10 3/8	PL205 PL205 PL205 PL205	AS205 AS205-013 AS205-014 AS205-015 AS205-100	3,150	1,770
30 1 1/16 1 1/8 1 3/16 1 1/4	ASPL206 ASPL206-101 ASPL206-102 ASPL206-103 *ASPL206-104	39.69 1 9/16	165 6 1/2	121 4 3/4	48 1 7/8	17 2 1/32	20 25/32	17 2 1/32	80 3 5/32	29 1.142	8 .315	M14 1/2	PL206 PL206 PL206 PL206	AS206 AS206-101 AS206-102 AS206-103 AS206-104	4,400	2,540
35 1 1/4 1 5/16 1 3/8 1 7/16	ASPL207 ASPL207-104 ASPL207-105 ASPL207-106 *ASPL207-107	46.04 1 1 3/16	167 6 9/16	127 5	48 1 7/8	17 2 1/32	20 25/32	18 2 3/32	91 3 19/32	34 1.339	8.5 .335	M14 1/2	PL207 PL207 PL207 PL207	AS207 AS207-104 AS207-105 AS207-106 AS207-107	5,750	3,440

* Unit with notched set screw as standard.

NTN
SERIES
AELPL2
ECCENTRIC
LOCKING
COLLAR
TYPE

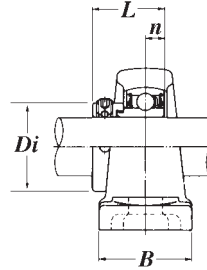
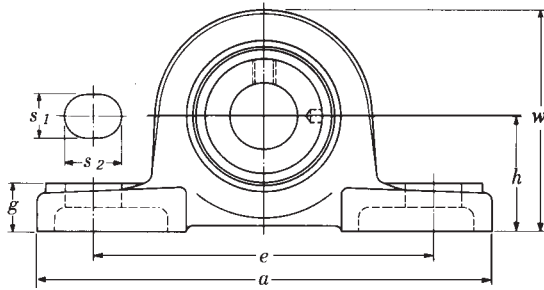
Units: **Millimeters**
INCHES



PILLOW BLOCKS - CAST HOUSING (LOW CENTER HEIGHT)

Shaft Dia.	Complete Pillow Block Number	Nominal Dimensions											Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		<i>h</i>	<i>a</i>	<i>e</i>	<i>b</i>	<i>s</i> ₁	<i>s</i> ₂	<i>g</i>	<i>w</i>	<i>D</i> _i	<i>L</i>	<i>n</i>				<i>C</i> _{Dynamic}	<i>C</i> _{Static}
12 ½	AELPL201 AELPL201-008	26.99 1 ⅙	121 4 ¾	89 3 ½	35 1 ⅜	11 7/16	14 9/16	13 ½	54 2 ½	29 1.14	28.6 1.126	6.5 .256	M10 ¾	PL201 PL201	AEL201 AEL201-008	2,160	1,040
15 ⅝	AELPL202 AELPL202-009 AELPL202-010	26.99 1 ⅙	121 4 ¾	89 3 ½	35 1 ⅜	11 7/16	14 9/16	13 ½	54 2 ½	29 1.14	28.6 1.126	6.5 .256	M10 ¾	PL201 PL201 PL201	AEL202 AEL202-009 AEL202-010	2,160	1,040
17 1 ⅙	AELPL203 AELPL203-011	26.99 1 ⅙	121 4 ¾	89 3 ½	35 1 ⅜	11 7/16	14 9/16	13 ½	54 2 ½	29 1.14	28.6 1.126	6.5 .256	M10 ¾	PL201 PL201	AEL203 AEL203-011	2,160	1,040
20 ¾	AELPL204 AELPL204-012	31.75 1 ¼	127 5	95 3 ¾	38 1 ½	13 ½	16 ⅝	14 ⅞	64 2 17/32	33.3 1.31	31 1.220	7.5 .295	M10 ¾	PL204 PL204	AEL204 AEL204-012	2,890	1,500
25 1 3/16 7/8 1 5/16 1	AELPL205 AELPL205-013 AELPL205-014 AELPL205-015 AELPL205-100	33.34 1 5/16	140 5 ½	105 4 ⅞	38 1 ½	13 ½	16 ⅝	15 1 1/32	68 2 1 1/16	38.1 1.50	31 1.220	7.5 .295	M10 ¾	PL205 PL205 PL205 PL205 PL205	AEL205 AEL205-013 AEL205-014 AEL205-015 AEL205-100	3,150	1,770
30 1 1/16 1 1/8 1 3/16 1 1/4	AELPL206 AELPL206-101 AELPL206-102 AELPL206-103 AELPL206-104	39.69 1 5/16	165 6 ½	121 4 ¾	48 1 7/8	17 2 1/32	20 2 5/32	17 2 1/32	80 3 5/32	44.5 1.75	35.7 1.406	9 .354	M14 ½	PL206 PL206 PL206 PL206 PL206	AEL206 AEL206-101 AEL206-102 AEL206-103 AEL206-104	4,400	2,540
35 1 1/4 1 5/16 1 3/8 1 7/16	AELPL207 AELPL207-104 AELPL207-105 AELPL207-106 AELPL207-107	46.04 1 13/16	167 6 9/16	127 5	48 1 7/8	17 2 1/32	20 2 5/32	18 2 3/32	91 3 19/32	55.6 2.19	38.9 1.531	9.5 .374	M14 ½	PL207 PL207 PL207 PL207 PL207	AEL207 AEL207-104 AEL207-105 AEL207-106 AEL207-107	5,750	3,440

Units: **Millimeters**
INCHES

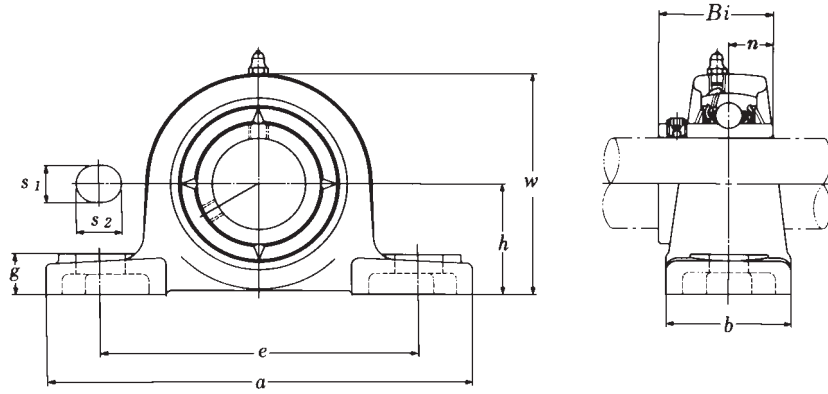


PILLOW BLOCKS - CAST HOUSING (LOW CENTER HEIGHT)

Shaft Dia.	Complete Pillow Block Number	Nominal Dimensions											Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		<i>h</i>	<i>a</i>	<i>e</i>	<i>b</i>	<i>s₁</i>	<i>s₂</i>	<i>g</i>	<i>w</i>	<i>Di</i>	<i>L</i>	<i>n</i>				<i>C_d</i>	<i>C_s</i>
12 ½	JELPL201 JELPL201-008	26.99 1 ¼	121 4 ¾	89 3 ½	35 1 ¾	11 7/16	14 9/16	13 ½	54 2 ½	29 1.14	28.6 1.126	6.5 .256	M10 3/8	PL201 PL201	JEL201 JEL201-008	2,160	1,030
15 5/16	JELPL202 JELPL202-009 JELPL202-010	26.99 1 ¼	121 4 ¾	89 3 ½	35 1 ¾	11 7/16	14 9/16	13 ½	54 2 ½	29 1.14	28.6 1.126	6.5 .256	M10 3/8	PL201 PL201 PL201	JEL202 JEL202-009 JEL202-010	2,160	1,030
17 1 1/16	JELPL203 JELPL203-011	26.99 1 ¼	121 4 ¾	89 3 ½	35 1 ¾	11 7/16	14 9/16	13 ½	54 2 ½	29 1.14	28.6 1.126	6.5 .256	M10 3/8	PL201 PL201	JEL203 JEL203-011	2,160	1,030
20 ¾	JELPL204 JELPL204-012	31.75 1 ¼	127 5	95 3 ¾	38 1 ½	13 ½	16 5/8	14 ¾	64 2 13/32	33.3 1.31	31 1.220	7.5 .295	M10 3/8	PL204 PL204	JEL204 JEL204-012	2,890	1,500
25 13/16 7/8 15/16 1	JELPL205 JELPL205-013 JELPL205-014 JELPL205-015 JELPL205-100	33.34 1 5/16	140 5 ½	105 4 ½	38 1 ½	13 ½	16 5/8	15 1 1/2	68 2 11/16	38.1 1.50	31 1.220	7.5 .295	M10 3/8	PL205 PL205 PL205 PL205 PL205	JEL205 JEL205-013 JEL205-014 JEL205-015 JEL205-100	3,150	1,770
30 1 1/16 1 1/8 1 3/16 1 ¼	JELPL206 JELPL206-101 JELPL206-102 JELPL206-103 JELPL206-104	39.69 1 9/16	165 6 ½	121 4 ¾	48 1 7/8	17 2 1/32	20 25/32	17 2 1/32	80 3 5/32	44.5 1.75	35.7 1.406	9 .354	M14 1/2	PL206 PL206 PL206 PL206 PL206	JEL206 JEL206-101 JEL206-102 JEL206-103 JEL206-104	4,400	2,540
35 1 ¼ 1 5/16 1 ¾ 1 7/16	JELPL207 JELPL207-104 JELPL207-105 JELPL207-106 JELPL207-107	46.04 1 13/16	167 6 9/16	127 5	48 1 7/8	17 2 1/32	20 25/32	18 23/32	91 3 13/32	55.6 2.19	38.9 1.531	9.5 .374	M14 1/2	PL207 PL207 PL207 PL207 PL207	JEL207 JEL207-104 JEL207-105 JEL207-106 JEL207-107	5,750	3,450

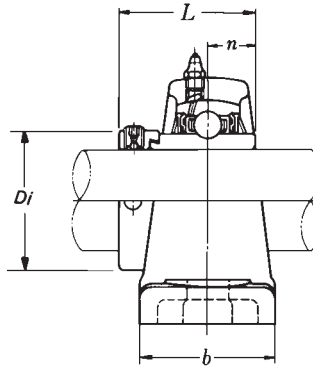
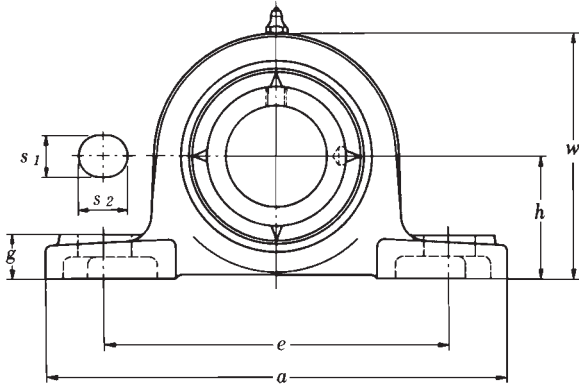


Units: **Millimeters**
INCHES



PILLOW BLOCKS - CAST HOUSING (LOW CENTER HEIGHT)																
Shaft Dia.	Complete Pillow Block Number	Nominal Dimensions										Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		<i>h</i>	<i>a</i>	<i>e</i>	<i>b</i>	<i>s₁</i>	<i>s₂</i>	<i>g</i>	<i>w</i>	<i>Bi</i>	<i>n</i>				<i>C_d</i>	<i>C_s</i>
20 3/4	UCPL204D1 UCPL204-012T	31.75 1 1/4	127 5	95 3 3/4	38 1 1/2	13 1/2	16 5/8	14 9/16	64 2 11/32	31 1.220	12.7 .500	M10 3/8	PL204D1 PL204T	UC204D1 UC204-012D1	2,890	1,500
25 1 3/16 7/8 15/16 1	UCPL205D1 UCPL205-013T UCPL205-014T UCPL205-015T UCPL205-100T	33.34 1 5/16	140 5 1/2	105 4 1/8	38 1 1/2	13 1/2	16 5/8	15 1 1/32	68 2 11/16	34 1.339	14.3 .563	M10 3/8	PL205D1 PL205T PL205T PL205T PL205T	UC205D1 UC205-013D1 UC205-014D1 UC205-015D1 UC205-100D1	3,150	1,770
30 1 1/4 1 1/8 1 3/16 1 1/4	UCPL206D1 UCPL206-101T UCPL206-102T UCPL206-103T UCPL206-104T	39.69 1 5/16	165 6 1/2	121 4 3/4	48 1 7/8	17 2 1/32	20 2 5/32	17 2 1/32	80 3 5/32	38.1 1.500	15.9 .626	M14 1/2	PL206D1 PL206T PL206T PL206T PL206T	UC206D1 UC206-101D1 UC206-102D1 UC206-103D1 UC206-104D1	4,400	2,540
35 1 1/4 1 5/16 1 3/8 1 7/16	UCPL207D1 UCPL207-104T UCPL207-105T UCPL207-106T UCPL207-107T	46.04 1 13/16	167 6 9/16	127 5	48 1 7/8	17 2 1/32	20 2 5/32	18 2 3/32	91 3 1 1/32	42.9 1.689	17.5 .689	M14 1/2	PL207D1 PL207T PL207T PL207T PL207T	UC207D1 UC207-104D1 UC207-105D1 UC207-106D1 UC207-107D1	5,750	3,440
45 1 5/8 1 11/16 1 3/4	UCPL209D1 UCPL209-110T UCPL209-111T UCPL209-112T	52.39 2 1/16	190 7 15/32	146 5 3/4	54 2 1/8	17 2 1/32	20 2 5/32	20 2 5/32	104 4 3/32	49.2 1.937	19 .748	M14 1/2	PL209D1 PL209T PL209T PL209T	UC209D1 UC209-110D1 UC209-111D1 UC209-112D1	7,350	4,590
50 1 13/16 1 7/8 1 15/16 2	UCPL210D1 UCPL210-113T UCPL210-114T UCPL210-115T UCPL210-200T	55.56 2 3/16	206 8 1/8	159 6 1/4	60 2 3/8	20 2 5/32	23 2 9/32	21 1 3/16	112 4 1 3/32	51.6 2.031	19 .748	M16 5/8	PL210D1 PL210T PL210T PL210T PL210T	UC210D1 UC210-113D1 UC210-114D1 UC210-115D1 UC210-200D1	7,900	5,220

Units: Millimeters
INCHES



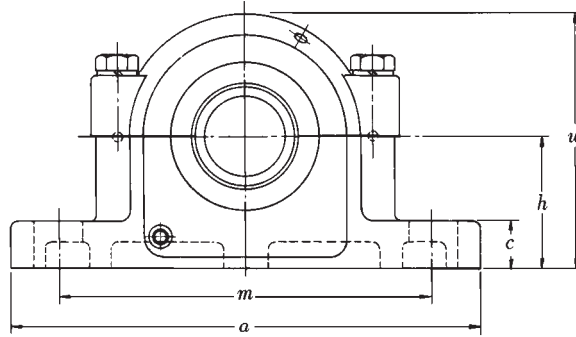
PILLOW BLOCKS - CAST HOUSING (LOW CENTER HEIGHT)

Shaft Dia.	Complete Pillow Block Number	Nominal Dimensions											Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		<i>h</i>	<i>a</i>	<i>e</i>	<i>b</i>	<i>s₁</i>	<i>s₂</i>	<i>g</i>	<i>w</i>	<i>Di</i>	<i>L</i>	<i>n</i>				<i>C_D</i>	<i>C_S</i>
20 ¾	UELPL204D1 UELPL204-012T	31.75 1 ¼	127 5	95 3 ¾	38 1 ½	13 ½	16 ⅝	14 ⅞	64 2 17/32	33.3 1.31	43.7 1.920	17.1 .673	M10 ⅝	PL204D1 PL204T	UEL204D1 UEL204-012D1	2,890	1,500
25 1 3/16 7/8 1 5/16 1	UELPL205D1 UELPL205-013T UELPL205-014T UELPL205-015T UELPL205-100T	33.34 1 5/16	140 5 ½	105 4 1/8	38 1 ½	13 ½	16 ⅝	15 19/32	68 2 1 1/16	38.1 1.50	44.4 1.748	17.5 .689	M10 ⅝	PL205D1 PL205T PL205T PL205T PL205T	UEL205D1 UEL205-013D1 UEL205-014D1 UEL205-015D1 UEL205-100D1	3,150	1,770
30 1 1/16 1 1/8 1 3/16 1 1/4	UELPL206D1 UELPL206-101T UELPL206-102T UELPL206-103T UELPL206-104T	39.69 1 9/16	165 6 ½	121 4 ¾	48 1 7/8	17 21/32	20 25/32	17 21/32	80 3 5/8	44.5 1.75	48.4 1.906	18.3 .720	M14 ½	PL206D1 PL206T PL206T PL206T PL206T	UEL206D1 UEL206-101D1 UEL206-102D1 UEL206-103D1 UEL206-104D1	4,400	2,540
35 1 1/4 1 5/16 1 3/8 1 7/16	UELPL207D1 UELPL207-104T UELPL207-105T UELPL207-106T UELPL207-107T	46.04 1 13/16	167 6 9/16	127 5	48 1 7/8	17 21/32	20 25/32	18 23/32	91 3 1 1/2	55.6 2.19	51.1 2.012	18.8 .740	M14 ½	PL207D1 PL207T PL207T PL207T PL207T	UEL207D1 UEL207-104D1 UEL207-105D1 UEL207-106D1 UEL207-107D1	5,750	3,440
45 1 5/8 1 11/16 1 3/4	UELPL209D1 UELPL209-110T UELPL209-111T UELPL209-112T	52.39 2 1/16	190 7 15/32	146 5 ¾	54 2 1/8	17 21/32	20 25/32	20 25/32	104 4 3/8	63.5 2.50	56.3 2.217	21.4 .843	M14 ½	PL209D1 PL209T PL209T PL209T	UEL209D1 UEL209-110D1 UEL209-111D1 UEL209-112D1	7,350	4,590
50 1 13/16 1 7/8 1 15/16 2	UELPL210D1 UELPL210-113T UELPL210-114T UELPL210-115T UELPL210-200T	55.56 2 3/16	206 8 1/8	159 6 1/4	60 2 3/8	20 25/32	23 29/32	21 13/16	112 4 1 3/8	69.9 2.75	62.7 2.469	24.6 .969	M16 5/8	PL210D1 PL210T PL210T PL210T PL210T	UEL210D1 UEL210-113D1 UEL210-114D1 UEL210-115D1 UEL210-200D1	7,900	5,220

NTN

**SERIES
SAF 225
SAF 226**

**ADAPTER
MOUNTING**

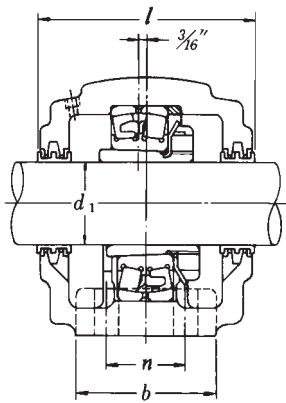


SAF PILLOW BLOCKS

Shaft Diameter d_1 Inches	Complete Pillow Block Number	Pillow ¹ Block Housing	Bearing Number	Basic Load Ratings (lbs)		Adapter Locknut and Lockwasher	Triple Seal Ring (2 required)	Stabilizing Ring (1 required)
				Dynamic C	Static C_o			
				PILLOW BLOCK COMPONENT NUMBERS				
1 7/16	SAF22509	SAF509	22209CKD1	18,600	21,400	SNW09	LER17	SR 85X6
1 11/16	SAF22510	SAF510	22210CKD1	19,300	23,000	SNW10	LER20	SR 90X6.5
1 15/16	SAF22511	SAF511	22211BKD1	21,000	24,700	SNW11	LER24	SR100X6
2 3/16	SAF22513	SAF513	22213BKD1	32,000	40,500	SNW13	LER29	SR120X10
2 7/16	SAF22515	SAF515	22215BKD1	37,000	50,000	SNW15	LER37	SR130X10
2 11/16	SAF22516	SAF516	22216BKD1	40,500	53,500	SNW16	LER44	SR140X10
2 15/16	SAF22517	SAF517	22217BKD1	46,500	61,500	SNW17	LER53	SR150X10
3 3/16	SAF22518	SAF518	22218BKD1	57,500	77,500	SNW18	LER69	SR160X10
3 7/16	SAF22520	SAF520	22220BKD1	70,000	92,500	SNW20	LER102	SR180X10
3 11/16	SAF22522	SAF522	22222BKD1	92,500	128,000	SNW22	LER109	SR200X10
4 3/16	SAF22524	SAF524	22224BKD1	109,000	158,000	SNW24	LER113	SR215X10
4 7/16	SAF22526	SAF526	22226BKD1	127,000	176,000	SNW26	LER117	SR230X10
4 11/16	SAF22528	SAF528	22228BKD1	153,000	218,000	SNW28	LER122	SR250X10
5 3/16	SAF22530	SAF530	22230BKD1	174,000	262,000	SNW30	LER125	SR270X10
5 7/16	SAF22532	SAF532	22232BKD1	195,000	290,000	SNW32	LER130	SR290X10
5 11/16	SAF22534	SAF534	22234BKD1	225,000	340,000	SNW34	LER140	SR310X10
6 7/16	SAF22536	SAF536	22236BK	233,000	360,000	SNW36	LER148	SR320X10
6 11/16	SAF22538	SAF538	22238BK	260,000	410,000	SNW38	LER155	SR340X10
7 3/16	SAF22540	SAF540	22240BK	295,000	450,000	SNW40	LER159	SR360X10
7 11/16	SAF22544	SAF544	22244BK	350,000	545,000	SNW44	LER167	SR400X10

SAF PILLOW BLOCKS

Shaft Diameter d_1 Inches	Complete Pillow Block Number	Pillow ¹ Block Housing	Bearing Number	Basic Load Ratings (lbs)		Adapter Locknut and Lockwasher	Triple Seal Ring (2 required)	Stabilizing Ring (1 required)
				Dynamic C	Static C_o			
				PILLOW BLOCK COMPONENT NUMBERS				
1 7/16	SAF22609	SAF609	22309CKD1	33,000	37,500	SNW109	LER17	SR100X6
1 11/16	SAF22610	SAF610	22310CKD1	42,000	47,500	SNW110	LER20	SR110X8
1 15/16	SAF22611	SAF611	22311BKD1	46,000	52,500	SNW111	LER24	SR120X10
2 3/16	SAF22613	SAF613	22313BKD1	59,500	71,000	SNW113	LER32	SR140X8.5
2 7/16	SAF22615	SAF615	22315BKD1	74,000	92,000	SNW115	LER37	SR160X10
2 11/16	SAF22616	SAF616	22316BKD1	86,000	105,000	SNW116	LER44	SR170X10
2 15/16	SAF22617	SAF617	22317BKD1	93,500	115,000	SNW117	LER184	SR180X10
3 3/16	SAF22618	SAF618	22318BKD1	107,000	132,000	SNW118	LER188	SR190X9.5
3 7/16	SAF22620	SAF620	22320BKD1	136,000	169,000	SNW120	LER102	SR215X9.5
3 11/16	SAF22622	SAF622	22322BKD1	167,000	209,000	SNW122	LER109	SR240X9.5
4 3/16	SAF22624	SAF624	22324BKD1	198,000	252,000	SNW124	LER113	SR260X9.5
4 7/16	SAF22626	SAF626	22326BKD1	221,000	282,000	SNW126	LER117	SR280X9.5
4 11/16	SAF22628	SAF628	22328BKD1	250,000	320,000	SNW128	LER122	SR300X9.5
5 3/16	SAF22630	SAF630	22330BK	281,000	385,000	SNW130	LER125	SR320X9.5
5 7/16	SAF22632	SAF632	22332BK	315,000	440,000	SNW132	LER130	SR340X9.5
5 11/16	SAF22634	SAF634	22334BK	340,000	480,000	SNW134	LER140	SR360X10
6 7/16	SAF22636	SAF636	22336BK	385,000	565,000	SNW136	LER148	SR380X10
6 11/16	SAF22638	SAF638	22338BK	415,000	615,000	SNW138	LER155	SR400X10



HOW TO ORDER

Example: When you order one SAF22520, you will receive a package containing one SAF520 Pillow Block Housing, one No. 22220BKD1 Bearing and one SNW20 Adapter. All units are supplied with two Triple Seal Rings and a Stabilizing Ring. If you specify SAF22520M3, the required end cover will be included. Always specify shaft size. The same example applies when you order SAF22620.

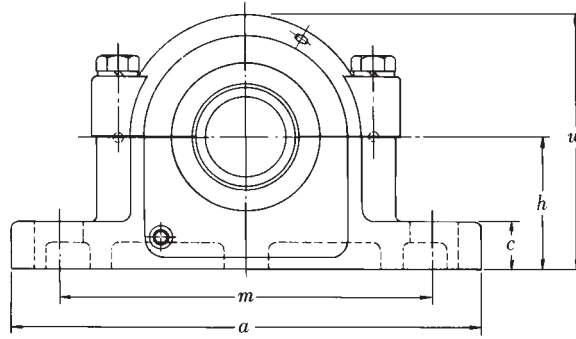
- ① A pillow block housing number includes one housing and two triple seal rings automatically. Suffix G on a pillow block housing number means one stabilizing ring is also included.

NOTE: For cast steel pillow blocks in 22500(22200) Series (SAFS), see pages 150 and 151.

SAF PILLOW BLOCKS											
Complete Pillow Block Number	Dimensions (Inches)									Set Bolts	
	<i>h</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>m</i>		<i>n</i>	<i>w</i>	<i>l</i>	Size	Number
					max.	min.					
SAF22509	2 1/4	8 1/4	2 3/8	1 3/16	7	6 1/4	—	4 3/8	3 5/8	1/2	2
SAF22510	2 1/2	8 1/2	2 3/8	1 5/16	7	6 1/2	—	4 3/4	3 5/8	1/2	2
SAF22511	2 3/4	9 5/8	2 3/4	1 5/16	7 7/8	7 3/8	—	5 1/4	3 7/8	5/8	2
SAF22513	3	11	3 1/8	1	9 1/2	8 1/8	—	5 15/16	4 1/2	5/8	2
SAF22515	3 1/4	11 1/4	3 1/8	1 1/8	9 5/8	8 5/8	—	6 3/8	4 3/4	5/8	2
SAF22516	3 1/2	13	3 1/2	1 3/16	11	9 5/8	—	6 7/8	4 7/8	3/4	2
SAF22517	3 3/4	13	3 1/2	1 1/4	11	9 7/8	—	7 5/16	5	3/4	2
SAF22518	4	13 3/4	3 7/8	1 5/16	11 5/8	10 3/8	—	7 3/4	5 3/4	3/4	2
SAF22520	4 1/2	15 1/4	4 3/8	1 3/4	13 1/8	11 5/8	—	8 3/4	6	7/8	2
SAF22522	4 5/8	16 1/2	4 3/4	2	14 1/2	12 5/8	2 3/4	9 5/8	6 1/2	3/4	4
SAF22524	5 1/4	16 1/2	4 3/4	2 1/8	14 1/2	13 1/4	2 3/4	10 1/4	7 3/8	3/4	4
SAF22526	6	18 3/8	5 1/8	2 3/8	16	14 5/8	3 1/4	11 1/2	8	7/8	4
SAF22528	6	20 1/8	5 7/8	2 3/8	17 1/8	16	3 3/8	11 3/4	7 5/8	1	4
SAF22530	6 5/16	21 1/4	6 1/4	2 1/2	18 1/4	17	3 3/4	12 1/2	8 3/8	1	4
SAF22532	6 11/16	22	6 1/4	2 5/8	19 1/4	17 3/8	3 3/4	13 5/16	8 3/4	1	4
SAF22534	7 1/16	24 3/4	6 3/4	2 3/4	21 5/8	19 3/8	4 1/4	14 3/16	9 5/8	1	4
SAF22536	7 1/2	26 3/4	7 1/8	3	23 5/8	20 7/8	4 5/8	14 7/8	10	1	4
SAF22538	7 7/8	28	7 1/2	3 1/8	24 3/8	21 5/8	4 1/2	15 11/16	10 3/4	1 1/4	4
SAF22540	8 1/4	29 1/2	8	3 3/8	25	22 1/2	5	16 1/2	11 1/4	1 1/4	4
SAF22544	9 1/2	32 3/4	8 3/4	3 3/4	27 7/8	24 3/4	5 1/4	18 5/8	12	1 1/2	4

SAF PILLOW BLOCKS											
Complete Pillow Block Number	Dimensions (Inches)									Set Bolts	
	<i>h</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>m</i>		<i>n</i>	<i>w</i>	<i>l</i>	Size	Number
					max.	min.					
SAF22609	2 3/4	9 5/8	2 3/4	1	7 7/8	7 3/8	—	5 5/16	4 1/4	5/8	2
SAF22610	3	10 5/8	2 3/4	1 1/8	9	7 3/4	—	5 13/16	4 5/8	5/8	2
SAF22611	3 1/4	11	3 1/8	1 3/16	9 1/2	8 1/8	—	6 3/16	4 7/8	5/8	2
SAF22613	3 1/2	13	3 1/2	1 1/4	11	9 5/8	—	6 15/16	5 3/8	3/4	2
SAF22615	4	13 3/4	3 7/8	1 5/16	11 5/8	10 3/8	—	7 13/16	6 1/4	3/4	2
SAF22616	4 1/4	14 1/4	3 7/8	1 5/16	12 5/8	10 5/8	—	8 1/4	6 1/2	3/4	2
SAF22617	4 1/2	15 1/4	4 3/8	1 3/4	13 1/8	11 5/8	—	8 3/4	6 3/4	7/8	2
SAF22618	4 3/4	15 1/2	4 3/8	2	13 1/2	12	2 1/4	9 3/16	6 7/8	3/4	4
SAF22620	5 1/4	16 1/2	4 3/4	2 1/8	14 1/2	13 1/4	2 3/4	10 1/4	7 3/8	3/4	4
SAF22622	6	18 3/8	5 1/8	2 3/8	16	14 5/8	3 1/4	11 1/2	8	7/8	4
SAF22624	6 5/16	21 1/4	6 1/4	2 1/2	18 1/4	17	3 3/4	12 1/2	8 3/8	1	4
SAF22626	6 11/16	22	6 1/4	2 5/8	19 1/4	17 3/8	3 3/4	13 5/16	8 3/4	1	4
SAF22628	7 1/16	24 3/4	6 3/4	2 3/4	21 5/8	19 3/8	4 1/4	14 3/16	9 3/8	1	4
SAF22630	7 1/2	26 3/4	7 1/8	3	23 5/8	20 7/8	4 5/8	14 7/8	9 3/4	1	4
SAF22632	7 7/8	28	7 1/2	3 1/8	24 3/8	21 5/8	4 1/2	15 11/16	10 5/8	1 1/4	4
SAF22634	8 1/4	29 1/2	8	3 3/8	25	22 1/2	5	16 1/2	11 1/4	1 1/4	4
SAF22636	8 7/8	31 1/4	8 1/4	3 1/2	26 5/8	24	5 1/4	17 3/4	11 3/8	1 1/4	4
SAF22638	9 1/2	32 3/4	8 3/4	3 3/4	27 7/8	24 3/4	5 1/4	18 5/8	12	1 1/2	4

NTN
SERIES
SAF222
SAF223
CYLINDRICAL
BORE
MOUNTING

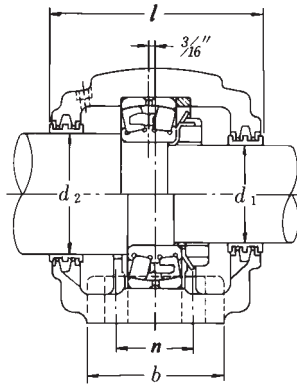


SAF PILLOW BLOCKS

Shaft Diameter Inches		Complete Pillow Block Number	Pillow Block Housing	Bearing Number	Basic Load Ratings (lbs)		Locknut	Lock-washer	Triple Seal Ring		Stabilizing Ring (1 required)
d_2	d_1				Dynamic C	Static C_o			d_2 Shaft (1 req'd)	d_1 Shaft (1 req'd)	
3 5/8	3	SAF22216	SAF216	22216BD1	40,500	53,500	AN16A	W16	LER82	LER54	SR140X10
3 15/16	3 3/8	SAF22217	SAF217	22217BD1	46,500	61,500	AN17A	W17	LER89	LER63	SR150X10
4 1/8	3 3/8	SAF22218	SAF218	22218BD1	57,500	77,500	AN18A	W18	LER96	LER72	SR160X10
4 1/2	3 13/16	SAF22220	SAF220	22220BD1	70,000	92,500	AN20A	W20	LER118	LER106	SR180X10
4 7/8	4 3/16	SAF22222	SAF222	22222BD1	92,500	128,000	AN22A	W22	LER121	LER113	SR200X10
4 9/16	4 9/16	SAF22224	SAF224	22224BD1	109,000	158,000	AN24A	W24	LER127	LER119	SR215X10
5 7/8	4 15/16	SAF22226	SAF226	22226BD1	127,000	176,000	AN26A	W26	LER136	LER122	SR230X10
6 1/4	5 5/16	SAF22228	SAF228	22228BD1	153,000	218,000	AN28A	W28	LER144	LER127	SR250X10
6 5/8	5 3/4	SAF22230	SAF230	22230BD1	174,000	262,000	AN30A	W30	LER151	LER134	SR270X10
7	6 1/16	SAF22232	SAF232	22232BD1	195,000	290,000	AN32A	W32	LER156	LER142	SR290X10
7 7/16	6 7/16	SAF22234	SAF234	22234BD1	225,000	340,000	AN34A	W34	LER161	LER148	SR310X10
7 13/16	6 7/8	SAF22236	SAF236	22236B	233,000	360,000	AN36A	W36	LER165	LER154	SR320X10
8 3/8	7 1/4	SAF22238	SAF238	22238B	260,000	410,000	AN38A	W38	LER171	LER160	SR340X10
8 3/4	7 5/8	SAF22240	SAF240	22240B	295,000	450,000	AN40A	W40	LER175	LER164	SR360X10
9 9/16	8 5/8	SAF22244	SAF244	22244B	350,000	545,000	N44	W44	LER179	LER170	SR400X10

SAF PILLOW BLOCKS

Shaft Diameter Inches		Complete Pillow Block Number	Pillow Block Housing	Bearing Number	Basic Load Ratings (lbs)		Locknut	Lock-washer	Triple Seal Ring		Stabilizing Ring (1 required)
d_2	d_1				Dynamic C	Static C_o			d_2 Shaft (1 req'd)	d_1 Shaft (1 req'd)	
1 15/16	1 7/16	SAF22308	SAF308	22308CD1	27,200	28,800	N08	W08	LER24	LER17	SR 90X6.5
2 1/8	1 11/16	SAF22309	SAF309	22309CD1	33,000	37,500	N09	W09	LER28	LER20	SR100X6
2 3/8	1 7/8	SAF22310	SAF310	22310CD1	42,000	47,500	N10	W10	LER35	LER23	SR110X8
2 9/16	2 1/16	SAF22311	SAF311	22311BD1	46,000	52,500	N11	W11	LER40	LER27	SR120X10
2 7/8	2 1/4	SAF22312	SAF312	22312BD1	53,000	60,500	N12	W12	LER47	LER33	SR130X10
3 1/16	2 7/16	SAF22313	SAF313	22313BD1	59,500	71,000	N13	W13	LER55	LER37	SR140X8.5
3 1/4	2 5/8	SAF22314	SAF314	22314BD1	72,500	85,000	N14	W14	LER64	LER43	SR150X10
3 7/16	2 13/16	SAF22315	SAF315	22315BD1	74,000	92,000	AN15A	W15	LER79	LER46	SR160X10
3 5/8	3	SAF22316	SAF316	22316BD1	86,000	105,000	AN16A	W16	LER84	LER60	SR170X10
3 15/16	3 3/8	SAF22317	SAF317	22317BD1	93,500	115,000	AN17A	W17	LER109	LER188	SR180X10
4 1/8	3 3/8	SAF22318	SAF318	22318BD1	107,000	132,000	AN18A	W18	LER112	LER191	SR190X9.5
4 1/2	3 13/16	SAF22320	SAF320	22320BD1	136,000	169,000	AN20A	W20	LER118	LER106	SR215X9.5
4 7/8	4 3/16	SAF22322	SAF322	22322BD1	167,000	209,000	AN22A	W22	LER121	LER113	SR240X9.5
4 9/16	4 9/16	SAF22324	SAF324	22324BD1	198,000	252,000	AN24A	W24	LER127	LER159	SR260X9.5
5 7/8	4 15/16	SAF22326	SAF326	22326BD1	221,000	282,000	AN26A	W26	LER136	LER122	SR280X9.5
6 1/4	5 5/16	SAF22328	SAF328	22328BD1	250,000	320,000	AN28A	W28	LER144	LER127	SR300X9.5
6 5/8	5 3/4	SAF22330	SAF330	22330B	281,000	385,000	AN30A	W30	LER151	LER134	SR320X9.5
7	6 1/16	SAF22332	SAF332	22332B	315,000	440,000	AN32A	W32	LER156	LER142	SR340X9.5
7 7/16	6 7/16	SAF22334	SAF334	22334B	340,000	480,000	AN34A	W34	LER161	LER148	SR360X10
7 13/16	6 7/8	SAF22336	SAF336	22336B	385,000	565,000	AN36A	W36	LER165	LER154	SR380X10
8 3/8	7 1/4	SAF22338	SAF338	22338B	415,000	615,000	AN38A	W38	LER171	LER160	SR400X10



HOW TO ORDER

Example: When you order one SAF22220, you will receive a package containing one SAF220 Pillow Block Housing, one No. 22220BD1 Bearing, one No. AN20A Locknut and one No. W20 Lockwasher. All units are supplied with two Triple Seal Rings and a Stabilizing Ring. If you specify SAF22220M3, the required end cover will be included. Always specify shaft size. The same example applies when you order SAF22320.

- ① A pillow block housing number includes one housing and two triple seal rings automatically. Suffix G on a pillow block housing number means one stabilizing ring is also included.

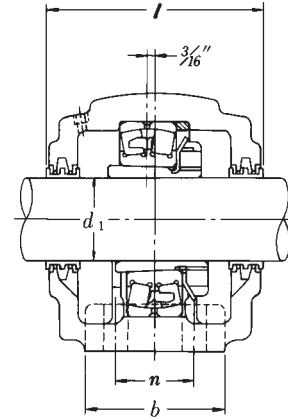
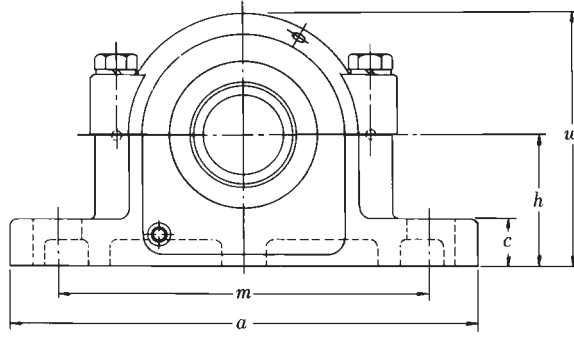
SAF PILLOW BLOCKS											
Complete Pillow Block Number	Dimensions (Inches)									Set Bolts	
	<i>h</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>m</i>		<i>n</i>	<i>w</i>	<i>l</i>	Size	Number
					max.	min.					
SAF22216	3 1/2	13	3 1/2	1 1/4	11	9 5/8	—	6 15/16	5 3/8	3/4	2
SAF22217	3 3/4	13	3 1/2	1 1/4	11	9 7/8	—	7 3/8	5 3/8	3/4	2
SAF22218	4	13 3/4	3 7/8	1 5/16	11 5/8	10 3/8	—	7 13/16	6 1/4	3/4	2
SAF22220	4 1/2	15 1/4	4 3/8	1 3/4	13 1/8	11 5/8	—	8 3/4	6	7/8	2
SAF22222	4 15/16	16 1/2	4 3/4	2	14 1/2	12 5/8	2 3/4	9 5/8	6 1/2	3/4	4
SAF22224	5 1/4	16 1/2	4 3/4	2 1/8	14 1/2	13 1/4	2 3/4	10 1/4	7 3/8	3/4	4
SAF22226	6	18 3/8	5 1/8	2 3/8	16	14 5/8	3 1/4	11 1/2	8	7/8	4
SAF22228	6	20 1/8	5 7/8	2 3/8	17 1/8	16	3 3/8	11 3/4	7 5/8	1	4
SAF22230	6 5/16	21 1/4	6 1/4	2 1/2	18 1/4	17	3 3/4	12 1/2	8 3/8	1	4
SAF22232	6 11/16	22	6 1/4	2 5/8	19 1/4	17 3/8	3 3/4	13 5/16	8 3/4	1	4
SAF22234	7 1/16	24 3/4	6 3/4	2 3/4	21 5/8	19 3/8	4 1/4	14 3/16	9 5/8	1	4
SAF22236	7 1/2	26 3/4	7 1/8	3	23 3/8	20 7/8	4 5/8	14 7/8	10	1	4
SAF22238	7 7/8	28	7 1/2	3 1/8	24 3/8	21 5/8	4 1/2	15 11/16	10 3/4	1 1/4	4
SAF22240	8 1/4	29 1/2	8	3 3/8	25	22 1/2	5	16 1/2	11 1/4	1 1/4	4
SAF22244	9 1/2	32 3/4	8 3/4	3 3/4	27 7/8	24 3/4	5 1/4	18 5/8	12	1 1/2	4

SAF PILLOW BLOCKS											
Complete Pillow Block Number	Dimensions (Inches)									Set Bolts	
	<i>h</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>m</i>		<i>n</i>	<i>w</i>	<i>l</i>	Size	Number
					max.	min.					
SAF22308	2 1/2	8 1/4	2 3/8	1	7	6 1/2	—	4 13/16	4	1/2	2
SAF22309	2 3/4	9 5/8	2 3/4	1	7 7/8	7 3/8	—	5 5/16	4 1/4	5/8	2
SAF22310	3	10 5/8	2 3/4	1 1/8	9	7 3/4	—	5 13/16	4 5/8	5/8	2
SAF22311	3 1/4	11	3 1/8	1 3/16	9 1/2	8 1/8	—	6 3/16	5	5/8	2
SAF22312	3 1/4	11 1/4	3 1/8	1 3/16	9 5/8	8 5/8	—	6 3/8	5 1/4	5/8	2
SAF22313	3 1/2	13	3 1/2	1 1/4	11	9 5/8	—	6 15/16	5 3/8	3/4	2
SAF22314	3 3/4	13	3 1/2	1 1/4	11	9 7/8	—	7 3/8	5 3/8	3/4	2
SAF22315	4	13 3/4	3 7/8	1 5/16	11 5/8	10 3/8	—	7 13/16	6 1/4	3/4	2
SAF22316	4 1/4	14 1/4	3 7/8	1 5/16	12 5/8	10 5/8	—	8 1/4	6 1/2	3/4	2
SAF22317	4 1/2	15 1/4	4 3/8	1 3/4	13 1/8	11 5/8	—	8 3/4	6 3/4	7/8	2
SAF22318	4 3/4	15 1/2	4 3/8	2	13 1/2	12	2 1/4	9 9/16	6 7/8	3/4	4
SAF22320	5 1/4	16 1/2	4 3/4	2 1/8	14 1/2	13 1/4	2 3/4	10 1/4	7 3/8	3/4	4
SAF22322	6	18 3/8	5 1/8	2 3/8	16	14 5/8	3 1/4	11 1/2	8	7/8	4
SAF22324	6 5/16	21 1/4	6 1/4	2 1/2	18 1/4	17	3 3/4	12 1/2	8 3/8	1	4
SAF22326	6 11/16	22	6 1/4	2 5/8	19 1/4	17 3/8	3 3/4	13 5/16	8 3/4	1	4
SAF22328	7 1/16	24 3/4	6 3/4	2 3/4	21 5/8	19 3/8	4 1/4	14 3/16	9 5/8	1	4
SAF22330	7 1/2	26 3/4	7 1/8	3	23 3/8	20 7/8	4 5/8	14 7/8	9 3/4	1	4
SAF22332	7 7/8	28	7 1/2	3 1/8	24 3/8	21 5/8	4 1/2	15 11/16	10 3/4	1 1/4	4
SAF22334	8 1/4	29 1/2	8	3 3/8	25	22 1/2	5	16 1/2	11 1/4	1 1/4	4
SAF22336	8 7/8	31 1/4	8 1/4	3 5/8	26 5/8	24	5 1/4	18 1/2	11 1/4	1 1/4	4
SAF22338	9 1/2	32 3/4	8 3/4	3 3/4	27 7/8	24 3/4	5 1/4	18 5/8	12	1 1/2	4

NTN

**SERIES
SAFS225
ADAPTER
MOUNTING**

**SAFS222
CYLINDRICAL
BORE
MOUNTING**



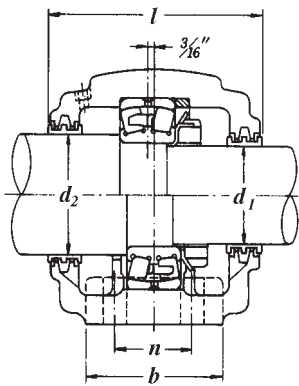
SAFS 225

SAFS PILLOW BLOCKS

Shaft Diameter d_1 Inches	Complete Pillow Block Number	Pillow Block Housing	Bearing Number	PILLOW BLOCK COMPONENT NUMBERS		Adapter Locknut and Lockwasher	Triple Seal Ring (2 required)	Stabilizing Ring (1 required)
				Basic Load Ratings (lbs)				
				Dynamic C	Static C_o			
1 7/16	SAFS22509	SAFS509	22209CKD1	18,600	21,400	SNW09	LER17	SR 85X6
1 11/16	SAFS22510	SAFS510	22210CKD1	19,300	23,000	SNW10	LER20	SR 90X6.5
1 15/16	SAFS22511	SAFS511	22211BKD1	21,000	24,700	SNW11	LER24	SR100X6
2 3/16	SAFS22513	SAFS513	22213BKD1	32,000	40,500	SNW13	LER29	SR120X10
2 7/16	SAFS22515	SAFS515	22215BKD1	37,000	50,000	SNW15	LER37	SR130X10
2 11/16	SAFS22516	SAFS516	22216BKD1	40,500	53,500	SNW16	LER44	SR140X10
2 15/16	SAFS22517	SAFS517	22217BKD1	46,500	61,500	SNW17	LER53	SR150X10
3 3/16	SAFS22518	SAFS518	22218BKD1	57,500	77,500	SNW18	LER69	SR160X10
3 7/16	SAFS22520	SAFS520	22220BKD1	70,000	92,500	SNW20	LER75	SR180X10
3 11/16	SAFS22522	SAFS522	22222BKD1	92,500	128,000	SNW22	LER93	SR200X10
4 3/16	SAFS22524	SAFS524	22224BKD1	109,000	158,000	SNW24	LER113	SR215X10
4 7/16	SAFS22526	SAFS526	22226BKD1	127,000	176,000	SNW26	LER117	SR230X10
4 11/16	SAFS22528	SAFS528	22228BKD1	153,000	218,000	SNW28	LER122	SR250X10
5 3/16	SAFS22530	SAFS530	22230BKD1	174,000	262,000	SNW30	LER125	SR270X10
5 7/16	SAFS22532	SAFS532	22232BKD1	195,000	290,000	SNW32	LER130	SR290X10
5 11/16	SAFS22534	SAFS534	22234BKD1	225,000	340,000	SNW34	LER140	SR310X10
6 7/16	SAFS22536	SAFS536	22236BK	233,000	360,000	SNW36	LER148	SR320X10
6 11/16	SAFS22538	SAFS538	22238BK	260,000	410,000	SNW38	LER224	SR340X10
7 3/16	SAFS22540	SAFS540	22240BK	295,000	450,000	SNW40	LER228	SR360X10
7 11/16	SAFS22544	SAFS544	22244BK	350,000	545,000	SNW44	LER236	SR400X10

SAFS PILLOW BLOCKS

Shaft Diameter Inches		Complete Pillow Block Number	Pillow Block Housing	Bearing Number	PILLOW BLOCK COMPONENT NUMBERS		Locknut	Lock-washer	Triple Seal Ring		Stabilizing Ring (1 required)
					Basic Load Ratings (lbs)				d_2 Shaft (1 req'd)	d_1 Shaft (1 req'd)	
					Dynamic C	Static C_o					
3 5/8	3	SAFS22216	SAFS216	22216BD1	40,500	53,500	AN16A	W16	LER 82	LER 54	SR140X10
3 11/16	3 3/16	SAFS22217	SAFS217	22217BD1	46,500	61,500	AN17A	W17	LER89	LER 63	SR150X10
4 1/8	3 3/8	SAFS22218	SAFS218	22218BD1	57,500	77,500	AN18A	W18	LER96	LER 72	SR160X10
4 1/2	3 13/16	SAFS22220	SAFS220	22220BD1	70,000	92,500	AN20A	W20	LER205	LER 87	SR180X10
4 7/8	4 3/16	SAFS22222	SAFS222	22222BD1	92,500	128,000	AN22A	W22	LER121	LER113	SR200X10
5 1/16	4 3/8	SAFS22224	SAFS224	22224BD1	109,000	158,000	AN24A	W24	LER127	LER119	SR215X10
5 7/8	4 15/16	SAFS22226	SAFS226	22226BD1	127,000	176,000	AN26A	W26	LER136	LER122	SR230X10
6 1/4	5 5/16	SAFS22228	SAFS228	22228BD1	153,000	218,000	AN28A	W28	LER144	LER127	SR250X10
6 5/8	5 3/4	SAFS22230	SAFS230	22230BD1	174,000	262,000	AN30A	W30	LER151	LER134	SR270X10
7	6 1/8	SAFS22232	SAFS232	22232BD1	195,000	290,000	AN32A	W32	LER156	LER142	SR290X10
7 1/16	6 7/16	SAFS22234	SAFS234	22234BD1	225,000	340,000	AN34A	W34	LER161	LER148	SR310X10
7 13/16	6 7/8	SAFS22236	SAFS236	22236B	233,000	360,000	AN36A	W36	LER165	LER154	SR320X10
8 3/8	7 1/4	SAFS22238	SAFS238	22238B	260,000	410,000	AN38A	W38	LER240	LER229	SR340X10
8 3/4	7 5/8	SAFS22240	SAFS240	22240B	295,000	450,000	AN40A	W40	LER244	LER233	SR360X10
9 1/16	8 3/16	SAFS22244	SAFS244	22244B	350,000	545,000	N44	W44	LER248	LER239	SR400X10



SAFS 222

HOW TO ORDER

Example No. 1: When you order one SAFS22520, you will receive a package containing one SAFS520 Pillow Block Housing, one No. 22220BKD1 Bearing and one SNW20 Adapter.

Example No. 2: When you order one SAFS22220, you will receive a package containing one SAFS220 Pillow Block Housing, one No. 22220BD1 Bearing, one No. AN20A Locknut and one No. W20 Lockwasher.

For both of the above examples:

All units are supplied with two Triple Seal Rings and a Stabilizing Ring. If you specify SAFS22520M3, the required end cover will be included. Always specify shaft size.

- ① A pillow block housing number includes one housing and two triple seal rings automatically. Suffix G on a pillow block housing number means one stabilizing ring is also included.

SAFS PILLOW BLOCKS											
Complete Pillow Block Number	Dimensions (Inches)									Set Bolts	
	<i>h</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>m</i>		<i>n</i>	<i>w</i>	<i>l</i>	Size	Number
					max.	min.					
SAFS22509	2 ¼	8 ¼	2 ¾	7/8	7	6 ¼	—	4 7/16	3 ¾	½	2
SAFS22510	2 ½	8 ¼	2 ¾	1	7	6 ½	—	4 13/16	4	½	2
SAFS22511	2 ¾	9 5/8	2 ¾	1	7 7/8	7 ¾	—	5 5/16	4 ¼	5/8	2
SAFS22513	3	11	3 ½	1	9 ½	8 ½	—	5 15/16	5	¾	2
SAFS22515	3 ¼	11 ¼	3 ½	1 3/16	9 5/8	8 5/8	—	6 3/8	5 ¼	5/8	2
SAFS22516	3 ½	13	3 ½	1 ¼	11	9 5/8	—	6 15/16	5 ¾	¾	2
SAFS22517	3 ¾	13	3 ½	1 ¼	11	9 7/8	—	7 7/8	5 ¾	¾	2
SAFS22518	4	13 ¾	3 7/8	1 5/16	11 5/8	10 ¾	—	7 13/16	6 ¼	¾	2
SAFS22520	4 ½	15 ¼	4 ¾	1 ½	13 ½	11 5/8	—	8 7/8	6 ¾	7/8	2
SAFS22522	4 15/16	16 ½	4 ¾	1 5/8	14 ½	12 5/8	2 ¾	9 11/16	7 ¼	¾	4
SAFS22524	5 ¼	16 ½	4 ¾	1 ¾	14 ½	13 ¼	2 ¾	10 ¼	7 ¾	¾	4
SAFS22526	6	18 ¾	5 ½	1 7/8	16	14 5/8	3 ¼	11 9/16	8	7/8	4
SAFS22528	6	20 ¾	5 7/8	1 15/16	17 ½	16	3 ¾	12	7 5/8	1	4
SAFS22530	6 5/16	21 ¼	6 ¼	2	18 ¼	17	3 ¾	12 11/16	8 ¾	1	4
SAFS22532	6 11/16	22	6 ¼	2	19 ¼	17 ¾	3 ¾	13 9/16	8 ¾	1	4
SAFS22534	7 1/16	24 ¾	6 ¾	2 ½	21 5/8	19 ¾	4 ¼	14 9/16	9 5/8	1	4
SAFS22536	7 ½	26 ¾	7 ½	2 ½	23 5/8	20 7/8	4 5/8	15 5/16	10	1	4
SAFS22538	7 7/8	28	7 ½	2 ¾	24 ¾	21 5/8	4 ½	16 3/16	10 5/8	1 ¼	4
SAFS22540	8 ¼	29 ½	8	2 ¾	25	22 ½	5	17 3/16	11 ½	1 ¼	4
SAFS22544	9 ½	32 ¾	8 ¾	2 ¾	27 7/8	24 ¾	5 ¼	19 7/16	11 7/8	1 ½	4

SAFS PILLOW BLOCKS											
Complete Pillow Block Number	Dimensions (Inches)									Set Bolts	
	<i>h</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>m</i>		<i>n</i>	<i>w</i>	<i>l</i>	Size	Number
					max.	min.					
SAFS22216	3 ½	13	3 ½	1 ¼	11	9 5/8	—	6 15/16	5 ¾	¾	2
SAFS22217	3 ¾	13	3 ½	1 ¼	11	9 7/8	—	7 3/8	5 ¾	¾	2
SAFS22218	4	13 ¾	3 7/8	1 5/16	11 5/8	10 ¾	—	7 13/16	6 ¼	¾	2
SAFS22220	4 ½	15 ¼	4 ¾	1 ½	13 ½	11 5/8	—	8 7/8	6 ¾	7/8	2
SAFS22222	4 15/16	16 ½	4 ¾	1 5/8	14 ½	12 5/8	2 ¾	9 11/16	7 ¼	¾	4
SAFS22224	5 ¼	16 ½	4 ¾	1 ¾	14 ½	13 ¼	2 ¾	10 ¼	7 ¾	¾	4
SAFS22226	6	18 ¾	5 ½	1 7/8	16	14 5/8	3 ¼	11 9/16	8	7/8	4
SAFS22228	6	20 ¾	5 7/8	1 15/16	17 ½	16	3 ¾	12	7 5/8	1	4
SAFS22230	6 5/16	21 ¼	6 ¼	2	18 ¼	17	3 ¾	12 11/16	8 ¾	1	4
SAFS22232	6 11/16	22	6 ¼	2	19 ¼	17 ¾	3 ¾	13 9/16	8 ¾	1	4
SAFS22234	7 1/16	24 ¾	6 ¾	2 ½	21 5/8	19 ¾	4 ¼	14 9/16	9 5/8	1	4
SAFS22236	7 ½	26 ¾	7 ½	2 ½	23 5/8	20 7/8	4 5/8	15 5/16	10	1	4
SAFS22238	7 7/8	28	7 ½	2 ¾	24 ¾	21 5/8	4 ½	16 3/16	10 5/8	1 ¼	4
SAFS22240	8 ¼	29 ½	8	2 ¾	25	22 ½	5	17 3/16	11 ½	1 ¼	4
SAFS22244	9 ½	32 ¾	8 ¾	2 ¾	27 7/8	24 ¾	5 ¼	19 7/16	11 7/8	1 ½	4



Bearing Series → **ASPP2 SERIES**

Complete Pillow Block Number → ASPP201 4 ← Weight (lbs)

Complete Pillow Block Number

Weight (lbs)

PILLOW BLOCKS

ASPP2 SERIES		JELP210-113T.....5.9	UCPX05-014T.....3.3	UCP310-114T.....13
ASPP201.....4	JELP210-114T.....5.9	UCPX05-015T.....3.3	UCP310-115T.....13	UCP311D1.....16
ASPP201-008.....4	JELP210-115T.....5.9	UCPX05-100T.....3.3	UCP311-200T.....16	UCP311-202T.....16
ASPP202.....2	JELP210-200T.....5.9	UCPX06D1.....4.4	UCP311-203T.....16	UCP312D1.....21
ASPP202-009.....2	JELP211D1.....7.3	UCPX06-101T.....4.4	UCP312-204T.....21	UCP312-206T.....21
ASPP202-010.....2	JELP211-200T.....7.3	UCPX06-102T.....4.4	UCP312-207T.....21	UCP313D1.....22
ASPP203.....2	JELP211-201T.....7.3	UCPX06-103T.....4.4	UCP313-208T.....22	UCP314D1.....26
ASPP203-011.....2	JELP211-202T.....7.3	UCPX06-104T.....4.4	UCP314-211T.....26	UCP314-212T.....26
ASPP204.....4	JELP211-203T.....7.3	UCPX07D1.....5.7	UCP315D1.....31	UCP315-215T.....31
ASPP204-012.....4	JELP212D1.....10	UCPX07-105T.....5.7	UCP315-300T.....31	UCP316D1.....40
ASPP205.....7	JELP212-204T.....10	UCPX07-106T.....5.7	UCP316-302T.....40	UCP316-303T.....40
ASPP205-013.....7	JELP212-206T.....10	UCPX07-107T.....5.7	UCP317D1.....44	UCP317-304T.....44
ASPP205-014.....7	JELP212-207T.....10	UCPX08D1.....7.3	UCP318D1.....53	UCP318-307T.....53
ASPP205-015.....7	UCP2 SERIES	UCPX08-108T.....7.3	UCP318-308T.....53	UCP319D1.....64
ASPP205-100.....7	UCP201D1.....1.5	UCPX08-109T.....7.3	UCP319-312T.....64	UCP320D1.....77
ASPP206.....9	UCP201-008T.....1.5	UCPX09D1.....7.3	UCP320-315T.....77	UCP320-400T.....77
ASPP206-101.....9	UCP202D1.....1.5	UCPX09-110T.....7.3	UCP321D1.....77	UCP322D1.....99
ASPP206-102.....9	UCP202-009T.....1.5	UCPX09-111T.....7.3	UCP322D1.....99	UCP324D1.....121
ASPP206-103.....9	UCP202-010T.....1.5	UCPX09-112T.....7.3	UCP324D1.....121	UCP326D1.....159
ASPP206-104.....9	UCP203D1.....1.5	UCPX09-113T.....7.3	UCP328D1.....196	
ASPP207.....1.3	UCP203-011T.....1.5	UCPX10D1.....9.5	UJELP2 SERIES	
ASPP207-104.....1.3	UCP204D1.....1.5	UCPX10-114T.....9.5	UJELP204D1.....1.5	
ASPP207-105.....1.3	UCP204D1.....1.5	UCPX10-115T.....9.5	UJELP204-012T.....1.5	
ASPP207-106.....1.3	UCP204-012T.....1.5	UCPX10-200T.....9.5	UJELP205D1.....2.0	
ASPP207-107.....1.3	UCP205D1.....1.8	UCPX11D1.....13	UJELP205-013T.....2.0	
	UCP205-013T.....1.8	UCPX11-202T.....13	UJELP205-014T.....2.0	
AELPP2 SERIES	UCP205-014T.....1.8	UCPX11-203T.....13	UJELP205-015T.....2.0	
AELPP201.....4	UCP205-015T.....1.8	UCPX11-204T.....13	UJELP205-100T.....2.0	
AELPP201-008.....4	UCP206D1.....2.9	UCPX11-205T.....13	UJELP206-101T.....3.1	
AELPP202.....4	UCP206-101T.....2.9	UCPX12-206T.....16	UJELP206-102T.....3.1	
AELPP202-009.....4	UCP206-102T.....2.9	UCPX12-207T.....16	UJELP206-103T.....3.1	
AELPP202-010.....4	UCP206-103T.....2.9	UCPX13D1.....17	UJELP206-104T.....3.1	
AELPP203.....4	UCP206-104T.....2.9	UCPX13-208T.....17	UJELP207D1.....4.0	
AELPP203-011.....4	UCP207D1.....3.5	UCPX13-209T.....17	UJELP207-104T.....4.0	
AELPP204.....4	UCP207-104T.....3.5	UCPX14D1.....22	UJELP207-105T.....4.0	
AELPP204-012.....4	UCP207-105T.....3.5	UCPX14-210T.....22	UJELP207-106T.....4.0	
AELPP205.....7	UCP207-106T.....3.5	UCPX14-211T.....22	UJELP207-107T.....4.0	
AELPP205-013.....7	UCP207-107T.....3.5	UCPX14-212T.....22	UJELP208D1.....4.4	
AELPP205-014.....7	UCP208D1.....4.2	UCPX15D1.....24	UJELP208-108T.....4.4	
AELPP205-015.....7	UCP208-108T.....4.2	UCPX15-213T.....24	UJELP208-109T.....4.4	
AELPP205-100.....7	UCP208-109T.....4.2	UCPX15-214T.....24	UJELP209D1.....5.3	
AELPP206.....1.1	UCP208-109T.....4.2	UCPX15-215T.....24	UJELP209-110T.....5.3	
AELPP206-101.....1.1	UCP209D1.....4.9	UCPX15-300T.....24	UJELP210D1.....6.2	
AELPP206-102.....1.1	UCP209-110T.....4.9	UCPX16D1.....33	UJELP210-113T.....6.2	
AELPP206-103.....1.1	UCP209-111T.....4.9	UCPX16-302T.....33	UJELP210-114T.....6.2	
AELPP206-104.....1.1	UCP209-112T.....4.9	UCPX16-303T.....33	UJELP210-115T.....6.2	
AELPP207.....1.5	UCP210D1.....5.7	UCPX16-304T.....33	UJELP210-200T.....6.2	
AELPP207-104.....1.5	UCP210-113T.....5.7	UCPX17D1.....35	UJELP211D1.....7.7	
AELPP207-105.....1.5	UCP210-114T.....5.7	UCPX17-305T.....35	UJELP211-200T.....7.7	
AELPP207-106.....1.5	UCP210-115T.....5.7	UCPX17-307T.....35	UJELP211-201T.....7.7	
AELPP207-107.....1.5	UCP211D1.....7.3	UCPX18D1.....37	UJELP211-202T.....7.7	
JELP2 SERIES	UCP211-200T.....7.3	UCPX18-308T.....37	UJELP211-203T.....7.7	
JELP204D1.....1.3	UCP211-201T.....7.3	UCPX20D1.....66	UJELP212D1.....11	
JELP204-012T.....1.3	UCP211-202T.....7.3	UCPX20-314T.....66	UJELP212-204T.....11	
JELP205D1.....1.8	UCP211-203T.....7.3	UCPX20-315T.....66	UJELP212-206T.....11	
JELP205-013T.....1.8	UCP212-204T.....10	UCPX20-400T.....66	UJELP212-207T.....11	
JELP205-014T.....1.8	UCP212-206T.....10	UCP3 SERIES	UJELP213D1.....14	
JELP205-015T.....1.8	UCP212-207T.....10	UCP305D1.....3.3	UJELP213-208T.....14	
JELP205-100T.....1.8	UCP213D1.....13	UCP305-014T.....3.3		
JELP206D1.....2.8	UCP213-208T.....13	UCP305-015T.....3.3		
JELP206-101T.....2.8	UCP214D1.....15	UCP305-100T.....3.3		
JELP206-102T.....2.8	UCP214-211T.....15	UCP306D1.....4.0		
JELP206-103T.....2.8	UCP214-212T.....15	UCP306-102T.....4.0		
JELP206-104T.....2.8	UCP215D1.....16	UCP306-103T.....4.0		
JELP207D1.....3.8	UCP215-215T.....16	UCP307D1.....6.2		
JELP207-104T.....3.8	UCP215-300T.....16	UCP307-104T.....6.2		
JELP207-105T.....3.8	UCP216D1.....20	UCP307-105T.....6.2		
JELP207-106T.....3.8	UCP216-302T.....20	UCP307-106T.....6.2		
JELP207-107T.....3.8	UCP217D1.....24	UCP307-107T.....6.2		
JELP208D1.....4.1	UCP217-304T.....24	UCP308D1.....6.6		
JELP208-108T.....4.1	UCP218D1.....29	UCP308-108T.....6.6		
JELP208-109T.....4.1	UCP218-308T.....29	UCP309D1.....9.0		
JELP209D1.....5.1	UCPX SERIES	UCP309-110T.....9.0		
JELP209-110T.....5.1	UCPX05D1.....3.3	UCP309-111T.....9.0		
JELP209-111T.....5.1	UCPX05-013T.....3.3	UCP309-112T.....9.0		
JELP209-112T.....5.1		UCP310D1.....13		
JELP210D1.....5.9				



PILLOW BLOCKS

UEL214D1	15
UEL214-211T	15
UEL214-212T	15
UEL215D1	17
UEL215-215T	17
UEL215-300T	17

UEL3 SERIES

UEL305D1	3.1
UEL305-014T	3.1
UEL305-015T	3.1
UEL305-100T	3.1
UEL306D1	4.2
UEL306-102T	4.2
UEL306-103T	4.2
UEL307D1	6.4
UEL307-104T	6.4
UEL307-105T	6.4
UEL307-106T	6.4
UEL307-107T	6.4
UEL308D1	6.8
UEL308-108T	6.8
UEL309D1	9.5
UEL309-110T	9.5
UEL309-111T	9.5
UEL309-112T	9.5
UEL310D1	13
UEL310-114T	13
UEL310-115T	13
UEL311D1	17
UEL311-200T	17
UEL311-202T	17
UEL311-203T	17
UEL312D1	21
UEL312-204T	21
UEL312-206T	21
UEL312-207T	21
UEL313D1	24
UEL313-208T	24
UEL314D1	26
UEL314-211T	26
UEL314-212T	26
UEL315D1	33
UEL315-215T	33
UEL315-300T	33
UEL316D1	42
UEL316-302T	42
UEL316-303T	42
UEL317D1	46
UEL317-304T	46
UEL318D1	55
UEL318-307T	55
UEL318-308T	55
UEL319D1	66
UEL319-312T	66
UEL320D1	82
UEL320-315T	82
UEL320-315T	82
UEL320-400T	82
UEL321D1	82
UEL322D1	106

ASPL2 SERIES

ASPL201	1.3
ASPL201-008	1.3
ASPL202	1.3
ASPL202-009	1.3
ASPL202-010	1.3
ASPL203	1.1
ASPL203-011	1.1
ASPL204	1.3
ASPL204-012	1.3
ASPL205	1.5
ASPL205-013	1.5
ASPL205-014	1.5
ASPL205-015	1.5
ASPL205-100	1.5
ASPL206	2.6
ASPL206-101	2.6

ASPL206-102	2.6
ASPL206-103	2.6
ASPL206-104	2.6
ASPL207	3.3
ASPL207-104	3.3
ASPL207-105	3.3
ASPL207-106	3.3
ASPL207-107	3.3

AELPL2 SERIES

AELPL201	1.3
AELPL201-008	1.3
AELPL202	1.3
AELPL202-009	1.3
AELPL202-010	1.3
AELPL203	1.3
AELPL203-011	1.3
AELPL204	1.5
AELPL204-012	1.5
AELPL205	1.8
AELPL205-013	1.8
AELPL205-014	1.8
AELPL205-015	1.8
AELPL205-100	1.8
AELPL206	2.6
AELPL206-101	2.6
AELPL206-102	2.6
AELPL206-103	2.6
AELPL206-104	2.6
AELPL207	3.5
AELPL207-104	3.5
AELPL207-105	3.5
AELPL207-106	3.5
AELPL207-107	3.5

JELPL2 SERIES

JELPL201	1.3
JELPL201-008	1.3
JELPL202	1.3
JELPL202-009	1.3
JELPL202-010	1.3
JELPL203	1.3
JELPL203-011	1.3
JELPL204	1.5
JELPL204-012	1.5
JELPL205	1.8
JELPL205-013	1.8
JELPL205-014	1.8
JELPL205-015	1.8
JELPL205-100	1.8
JELPL206	2.6
JELPL206-101	2.6
JELPL206-102	2.6
JELPL206-103	2.6
JELPL206-104	2.6
JELPL207	3.5
JELPL207-104	3.5
JELPL207-105	3.5
JELPL207-106	3.5
JELPL207-107	3.5

UCPL2 SERIES

UCPL204D1	1.3
UCPL204-012T	1.3
UCPL205D1	1.8
UCPL205-013T	1.8
UCPL205-014T	1.8
UCPL205-015T	1.8
UCPL205-100T	1.8
UCPL206D1	2.6
UCPL206-101T	2.6
UCPL206-102T	2.6
UCPL206-103T	2.6
UCPL206-104T	2.6
UCPL207D1	3.5
UCPL207-104T	3.5
UCPL207-105T	3.5
UCPL207-106T	3.5
UCPL207-107T	3.5

UCPL209D1	4.9
UCPL209-110T	4.9
UCPL209-111T	4.9
UCPL209-112T	4.9
UCPL210D1	5.7
UCPL210-113T	5.7
UCPL210-114T	5.7
UCPL210-115T	5.7
UCPL210-200T	5.7

UELPL2 SERIES

UELPL204D1	1.5
UELPL204-012T	1.5
UELPL205D1	1.8
UELPL205-013T	1.8
UELPL205-014T	1.8
UELPL205-015T	1.8
UELPL205-100T	1.8
UELPL206D1	3.1
UELPL206-101T	3.1
UELPL206-102T	3.1
UELPL206-103T	3.1
UELPL206-104T	3.1
UELPL207D1	3.7
UELPL207-104T	3.7
UELPL207-105T	3.7
UELPL207-106T	3.7
UELPL207-107T	3.7
UELPL209D1	5.1
UELPL209-110T	5.1
UELPL209-111T	5.1
UELPL209-112T	5.1
UELPL210D1	6.0
UELPL210-113T	6.0
UELPL210-114T	6.0
UELPL210-115T	6.0
UELPL210-200T	6.0

SAF SERIES

SAF22509	10.5
SAF22510	11.5
SAF22511	13.5
SAF22513	21
SAF22515	24
SAF22516	37
SAF22517	40
SAF22518	49
SAF22520	65
SAF22522	81
SAF22524	94
SAF22526	137
SAF22528	159
SAF22530	189
SAF22532	225
SAF22534	300
SAF22536	330
SAF22538	375
SAF22540	445
SAF22544	670
SAF22609	22
SAF22610	27
SAF22611	32
SAF22613	44
SAF22615	60
SAF22616	71
SAF22617	81
SAF22618	90
SAF22620	113
SAF22622	151
SAF22624	201
SAF22626	245
SAF22628	310
SAF22630	350
SAF22632	420
SAF22634	485
SAF22636	570
SAF22638	665
SAF22216	40

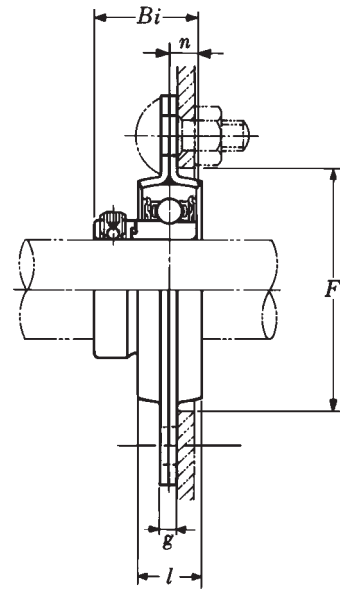
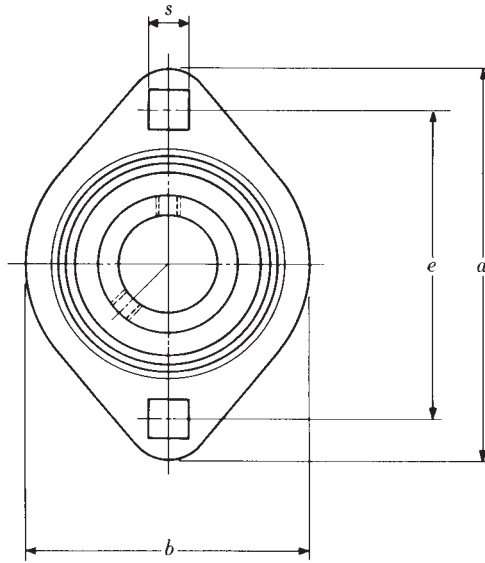
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SAF22218	50
SAF22220	71
SAF22222	81
SAF22224	90
SAF22226	127
SAF22228	149
SAF22230	175
SAF22232	210
SAF22234	280
SAF22236	305
SAF22238	350
SAF22240	420
SAF22244	590
SAF22308	17
SAF22309	21
SAF22310	26
SAF22311	31
SAF22312	37
SAF22313	43
SAF22314	45
SAF22315	58
SAF22316	68
SAF22317	80
SAF22318	92
SAF22320	109
SAF22322	145
SAF22324	195
SAF22326	235
SAF22328	300
SAF22330	335
SAF22332	405
SAF22334	465
SAF22336	540
SAF22338	635

SAFS SERIES

SAFS22509	11.6
SAFS22510	12.7
SAFS22511	14.9
SAFS22513	23
SAFS22515	26
SAFS22516	41
SAFS22517	44
SAFS22518	54
SAFS22520	72
SAFS22522	89
SAFS22524	103
SAFS22526	151
SAFS22528	175
SAFS22530	208
SAFS22532	248
SAFS22534	330
SAFS22536	363
SAFS22538	413
SAFS22540	490
SAFS22544	737
SAFS22216	44
SAFS22217	47
SAFS22218	55
SAFS22220	78
SAFS22222	89
SAFS22224	99
SAFS22226	140
SAFS22228	164
SAFS22230	193
SAFS22232	231
SAFS22234	308
SAFS22236	336
SAFS22238	385
SAFS22240	462
SAFS22244	649



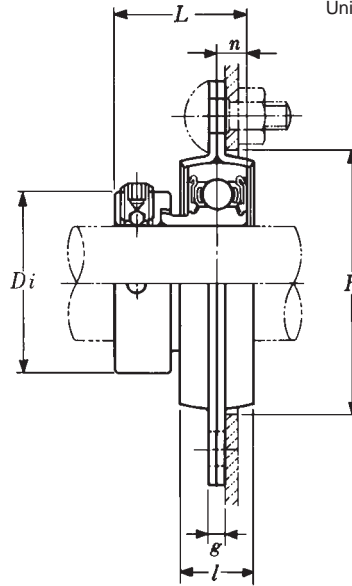
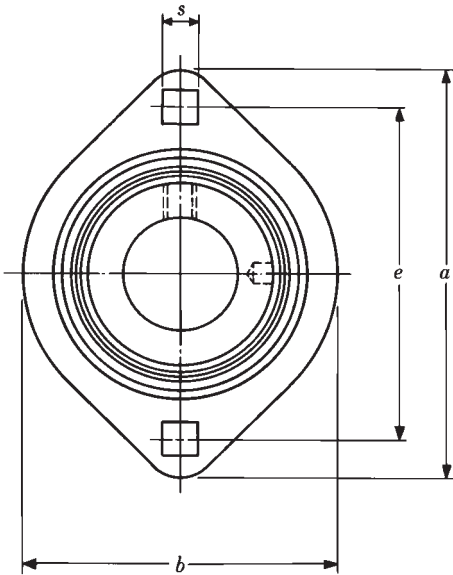
Units: **Millimeters**
INCHES



FLANGED UNITS - PRESSED STEEL HOUSING (TWO BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions								Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)		Max. Radial Load ^① (lbs)
		a	e	g	s	l	Bi	n	(min) F				Dynamic C	Static C ₀	
12 ½	ASPFL201 ASPFL201-008	81 3 ⅜	63 2 1 ½	4 .157	7 ⅞	14 ⅞	22 .866	6 .236	49 1 1 ½	M6 ¼	PFL203 PFL203	AS201 AS201-008	2,160	1,040	600
15 9/16	ASPFL202 ASPFL202-009 ASPFL202-010	81 3 ⅜	63 2 1 ½	4 .157	7 ⅞	14 ⅞	22 .866	6 .236	49 1 1 ½	M6 ¼	PFL203 PFL203 PFL203	AS202 AS202-009 AS202-010	2,160	1,040	600
17 1 1/16	ASPFL203 *ASPFL203-011	81 3 ⅜	63 2 1 ½	4 .157	7 ⅞	14 ⅞	22 .866	6 .236	49 1 1 ½	M6 ¼	PFL203 PFL203	AS203 AS206-011	2,160	1,040	600
20 ¾	ASPFL204 ASPFL204-012	90 3 1 7/8	71 2 2 5/8	4 .157	9 2 3/4	16 5/8	25 .984	7 .276	56 2 7/8	M8 5/16	PFL204 PFL204	AS204 AS204-012	2,890	1,500	660
25 1 3/16 7/8 1 1/4 1 1/8	ASPFL205 ASPFL205-013 ASPFL205-014 ASPFL205-015 ASPFL205-100	95 3 ¾	76 3	4 .157	9 2 3/4	18 2 3/8	27 1.063	7.5 .295	60 2 ¾	M8 5/16	PFL205 PFL205 PFL205 PFL205 PFL205	AS205 AS205-013 AS205-014 AS205-015 AS205-100	3,150	1,770	880
30 1 1/16 1 1/8 1 3/16	ASPFL206 ASPFL206-101 ASPFL206-102 ASPFL206-103 *ASPFL206-104	113 4 7/16	90 3 1 7/8	5.2 .205	11 7/16	18 2 3/8	29 1.142	8 .315	71 2 25/32	M10 3/8	PFL206 PFL206 PFL206 PFL206 PFL206	AS206 AS206-101 AS206-102 AS206-103 AS206-104	4,400	2,540	1,100
35 1 ¼ 1 5/16 1 ¾ 1 7/16	ASPFL207 ASPFL207-104 ASPFL207-105 ASPFL207-106 *ASPFL207-107	122 4 1 3/16	100 3 1 5/16	5.2 .205	11 7/16	20 2 5/8	34 1.339	8.5 .335	81 3 3/16	M10 3/8	PFL207 PFL207 PFL207 PFL207 PFL207	AS207 AS207-104 AS207-105 AS207-106 AS207-107	5,750	3,440	1,300

① Axial load should be less than 1/3 of radial load.
* Unit with notched set screw as standard.



Units: **Millimeters**
INCHES



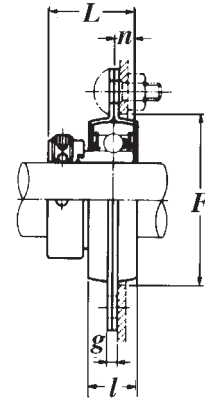
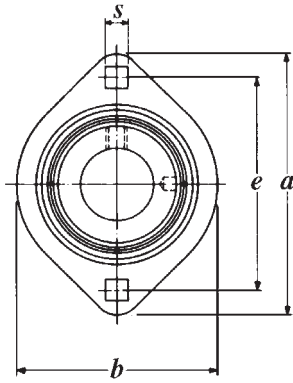
FLANGED UNITS - PRESSED STEEL HOUSING (TWO BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions										Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)		Max. Radial Load ^① (lbs)
		a	e	g	s	l	b	Di	L	n	(min) F				Dynamic C	Static C ₀	
12 ½	AELPFL201 AELPFL201-008	81 3 ¾	63 2 15/32	4 .157	7 7/32	14 9/16	59 2 5/16	29 1.14	28.6 1.126	6.5 .256	49 1 15/16	M6 ¼	PFL203 PFL203	AEL201 AEL201-088	2,160	1,040	600
15 9/16 5/8	AELPFL202 AELPFL202-009 AELPFL202-010	81 3 ¾	63 2 15/32	4 .157	7 7/32	14 9/16	59 2 5/16	29 1.14	28.6 1.126	6.5 .256	49 1 15/16	M6 ¼	PFL203 PFL203 PFL203	AEL202 AEL202-009 AEL202-010	2,160	1,040	600
17 1 1/16	AELPFL203 AELPFL203-011	81 3 ¾	63 2 15/32	4 .157	7 7/32	14 9/16	59 2 5/16	29 1.14	28.6 1.126	6.5 .256	49 1 15/16	M6 ¼	PFL203 PFL203	AEL203 AEL203-011	2,160	1,040	600
20 ¾	AELPFL204 AELPFL204-012	90 3 17/32	71 2 25/32	4 .157	9 23/64	16 5/8	67 2 5/8	33.3 1.31	31 1.220	7.5 .295	56 2 7/32	M8 5/16	PFL204 PFL204	AEL204 AEL204-012	2,890	1,500	660
25 1 3/16 7/8 1 1/16 1	AELPFL205 AELPFL205-013 AELPFL205-014 AELPFL205-015 AELPFL205-100	95 3 ¾	76 3	4 .157	9 23/64	18 23/32	71 2 25/32	38.1 1.50	31 1.220	7.5 .295	60 2 3/8	M8 5/16	PFL205 PFL205 PFL205 PFL205 PFL205	AEL205 AEL205-013 AEL205-014 AEL205-015 AEL205-100	3,150	1,770	880
30 1 1/16 1 1/8 1 3/16 1 1/4	AELPFL206 AELPFL206-101 AELPFL206-102 AELPFL206-103 AELPFL206-104	113 4 7/16	90 3 17/32	5.2 .205	11 7/16	18 23/32	84 3 1/4	44.5 1.75	35.7 1.406	9 .354	71 2 25/32	M10 3/8	PFL206 PFL206 PFL206 PFL206 PFL206	AEL206 AEL206-101 AEL206-102 AEL206-103 AEL206-104	4,400	2,540	1,100
35 1 1/4 1 5/16 1 3/8 1 7/16	AELPFL207 AELPFL207-104 AELPFL207-105 AELPFL207-106 AELPFL207-107	122 4 13/16	100 3 15/16	5.2 .205	11 7/16	20 25/32	94 3 11/16	55.6 2.19	38.9 1.531	9.5 .374	81 3 3/16	M10 3/8	PFL207 PFL207 PFL207 PFL207 PFL207	AEL207 AEL207-104 AEL207-105 AEL207-106 AEL207-107	5,750	3,440	1,300

① Axial load should be less than 1/3 of radial load.

NTN
SERIES
JELPFL2
ECCENTRIC
LOCKING
COLLAR
TYPE

Units: **Millimeters**
INCHES

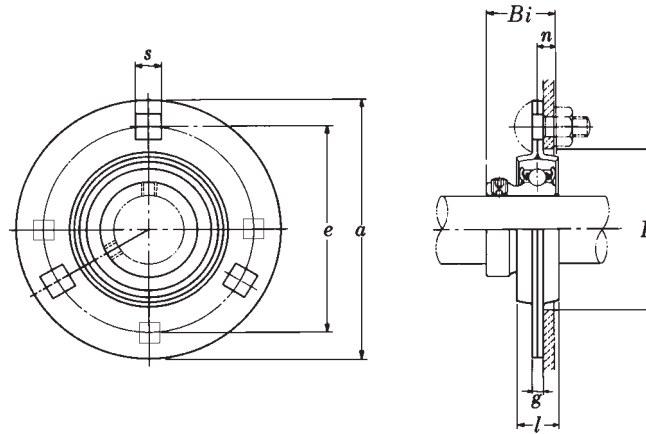


FLANGED UNITS - PRESSED STEEL HOUSING (TWO BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions										Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)		Max. Radial Load ^① (lbs)
		a	e	g	s	l	b	Di	L	n	(min) F				Dynamic C	Static C ₀	
12 ½	JELPFL201 JELPFL201-008	81 3 ¾	63 2 15/32	4 .157	7 7/32	14 14	59 2 5/16	29 1.14	28.6 1.126	6.5 .256	49 1 15/16	M6 ¼	PFL203 PFL203	JEL201 JEL201-088	2,160	1,030	600
15 9/16 5/8	JELPFL202 JELPFL202-009 JELPFL202-010	81 3 ¾	63 2 15/32	4 .157	7 7/32	14 14	59 2 5/16	29 1.14	28.6 1.126	6.5 .256	49 1 15/16	M6 ¼	PFL203 PFL203 PFL203	JEL202 JEL202-009 JEL202-010	2,160	1,030	600
17 1 1/16	JELPFL203 JELPFL203-011	81 3 ¾	63 2 15/32	4 .157	7 7/32	14 14	59 2 5/16	29 1.14	28.6 1.126	6.5 .256	49 1 15/16	M6 ¼	PFL203 PFL203	JEL203 JEL203-011	2,160	1,030	600
20 ¾	JELPFL204 JELPFL204-012	90 3 17/32	71 2 25/32	4 .157	9 23/64	16 5/8	67 2 5/8	33.3 1.31	31 1.220	7.5 .295	56 2 7/32	M8 5/16	PFL204 PFL204	JEL204 JEL204-012	2,890	1,500	660
25 1 3/16 7/8 1 1/16 1	JELPFL205 JELPFL205-013 JELPFL205-014 JELPFL205-015 JELPFL205-100	95 3 ¾	76 3	4 .157	9 23/64	18 23/32	71 2 25/32	38.1 1.50	31 1.220	7.5 .295	60 2 3/8	M8 5/16	PFL205 PFL205 PFL205 PFL205	JEL205 JEL205-013 JEL205-014 JEL205-015 JEL205-100	3,150	1,770	880
30 1 1/16 1 1/8 1 3/16 1 1/4	JELPFL206 JELPFL206-101 JELPFL206-102 JELPFL206-103 JELPFL206-104	113 4 7/16	90 3 17/32	5.2 .205	11 7/16	18 23/32	84 3 5/16	44.5 1.75	35.7 1.406	9 .354	71 2 29/32	M10 3/8	PFL206 PFL206 PFL206 PFL206 PFL206	JEL206 JEL206-101 JEL206-102 JEL206-103 JEL206-104	4,400	2,540	1,100
35 1 1/4 1 5/16 1 3/8 1 7/16	JELPFL207 JELPFL207-104 JELPFL207-105 JELPFL207-106 JELPFL207-107	122 4 13/16	100 3 15/16	5.2 .205	11 7/16	20 25/32	94 3 11/16	55.6 2.19	38.9 1.531	9.5 .374	81 3 3/16	M10 3/8	PFL207 PFL207 PFL207 PFL207 PFL207	JEL207 JEL207-104 JEL207-105 JEL207-106 JEL207-107	5,750	3,450	1,300

① Axial load should be less than 1/3 of radial load.

Units: **Millimeters**
INCHES



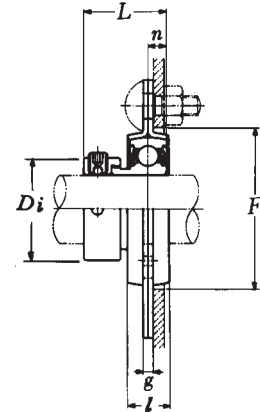
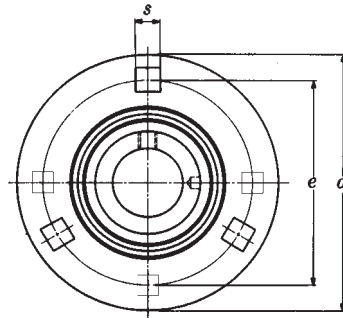
FLANGED UNITS - PRESSED STEEL HOUSING (THREE BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions									Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)		Max. Radial Load ^① (lbs)
		a	e	g	s	l	Bi	n	(min) F	Dynamic C				Static C ₀		
12 ½	ASPF201 ASPF201-008	81 3 ⅜	63 2 1 5/32	4 .157	7 9/32	14 9/16	22 .866	6 .236	49 1 15/16	M6 ¼	PF203 PF203	AS201 AS201-008	2,160	1,040	600	
15 9/16 5/8	ASPF202 ASPF202-009 ASPF202-010	81 3 ⅜	63 2 1 5/32	4 .157	7 9/32	14 9/16	22 .866	6 .236	49 1 15/16	M6 ¼	PF203 PF203 PF203	AS202 AS202-009 AS202-010	2,160	1,040	600	
17 1 1/16	ASPF203 *ASPF203-011	81 3 ⅜	63 2 1 5/32	4 .157	7 9/32	14 9/16	22 .866	6 .236	49 1 15/16	M6 ¼	PF203 PF203	AS203 AS203-011	2,160	1,040	600	
20 ¾	ASPF204 ASPF204-012	90 3 1 7/32	71 2 2 5/32	4 .157	9 2 3/64	16 5/8	25 .984	7 .276	56 2 7/32	M8 5/16	PF204 PF204	AS204 AS204-012	2,890	1,500	660	
25 1 3/16 7/8 1 5/16 1	ASPF205 ASPF205-013 ASPF205-014 ASPF205-015 ASPF205-100	95 3 ¾	76 3	4 .157	9 2 3/64	18 2 3/32	27 1.063	7.5 .295	60 2 ¾	M8 5/16	PF205 PF205 PF205 PF205	AS205 AS205-013 AS205-014 AS205-015 AS205-100	3,150	1,770	880	
30 1 1/16 1 1/8 1 3/16 1 ¼	ASPF206 ASPF206-101 ASPF206-102 ASPF206-103 *ASPF206-104	113 4 7/16	90 3 1 1/32	5.2 .205	11 7/16	18 2 3/32	29 1.142	8 .315	71 2 25/32	M10 ¾	PF206 PF206 PF206 PF206	AS206 AS206-101 AS206-102 AS206-103 AS206-104	4,400	2,540	1,100	
35 1 ¼ 1 5/16 1 ¾ 1 7/16	ASPF207 ASPF207-104 ASPF207-105 ASPF207-106 *ASPF207-107	122 4 1 13/16	100 3 1 5/16	5.2 .205	11 7/16	20 2 5/32	34 1.339	8.5 .335	81 3 3/16	M10 ¾	PF207 PF207 PF207 PF207	AS207 AS207-104 AS207-105 AS207-106 AS207-107	5,750	3,440	1,300	
40 1 ½ 1 9/16	ASPF208 ASPF208-108 ASPF208-109	148 5 1 1/16	119 4 1 1/16	6.8 .268	★ 14 9/16	21 1 1/16	38 1.496	9 .354	91 3 9/16	M12 ½	PF208 PF208 PF208	AS208 AS208-108 AS208-109	6,550	4,000	1,500	

① Axial load should be less than 1/3 of radial load.
* Unit with notched set screw as standard.
★ ASPF208 has four bolt holes.

NTN
SERIES
AELPF2
ECCENTRIC
LOCKING
COLLAR
TYPE

Units: **Millimeters**
INCHES

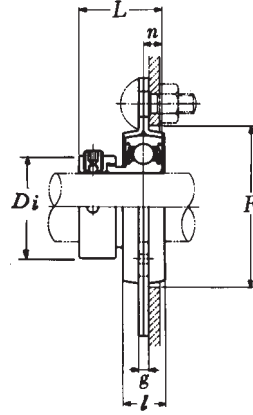
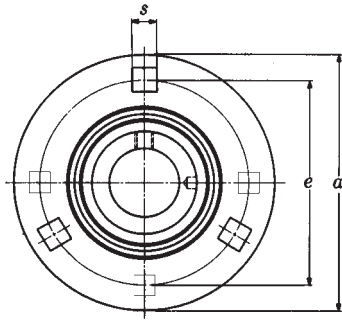


FLANGED UNITS - PRESSED STEEL HOUSING (THREE BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions									Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)		Max. Radial Load ^① (lbs)
		a	e	g	s	l	Bi	n	(min) F	Dynamic C				Static Co		
12 ½	AELPF201 AELPF201-008	81 3 ¾	63 2 ½	4 .157	7 ⅞	14 ⅞	29 1.14	6.5 .256	49 1 ⅞	M6 ¼	PF203 PF203	AEL201 AEL201-008	2160	1040	600	
15 ⅝ ⅝	AELPF202 AELPF202-009 AELPF202-010	81 3 ¾	63 2 ½	4 .157	7 ⅞	14 ⅞	29 1.14	6.5 .256	49 1 ⅞	M6 ¼	PF203 PF203 PF203	AEL202 AEL202-009 AEL202-010	2160	1040	600	
17 1 ⅛	AELPF203 AELPF203-011	81 3 ¾	63 2 ½	4 .157	7 ⅞	14 ⅞	29 1.14	6.5 .256	49 1 ⅞	M6 ¼	PF203 PF203	AEL203 AEL203-011	2160	1040	600	
20 ¾	AELPF204 AELPF204-012	90 3 17/32	71 2 25/32	4 .157	9 23/64	16 5/8	33.3 1.31	7.5 .295	56 2 7/32	M8 5/16	PF204 PF204	AEL204 AEL204-012	2890	1500	660	
25 1 3/16 7/8 1 5/16 1	AELPF205 AELPF205-013 AELPF205-014 AELPF205-015 AELPF205-100	95 3 ¾	76 3	4 .157	9 23/64	18 23/32	38.1 1.50	7.5 .295	60 2 ¾	M8 5/16	PF205 PF205 PF205 PF205	AEL205 AEL205-013 AEL205-014 AEL205-015 AEL205-100	3150	1770	880	
30 1 1/16 1 1/8 1 3/16 ¼	AELPF206 AELPF206-101 AELPF206-102 AELPF206-103 AELPF206-104	113 4 7/16	90 3 17/32	5.2 .205	11 7/16	18 23/32	44.5 1.75	9 .354	71 2 25/32	M10 ¾	PF206 PF206 PF206 PF206	AEL206 AEL206-101 AEL206-102 AEL206-103 AEL206-104	4400	2540	1100	
35 1 ¼ 1 5/16 1 ¾ 1 7/16	AELPF207 AELPF207-104 AELPF207-105 AELPF207-106 AELPF207-107	122 4 13/16	100 3 15/16	5.2 .205	11 7/16	20 25/32	55.6 2.19	9.5 .374	81 3 3/16	M10 ¾	PF207 PF207 PF207 PF207	AEL207 AEL207-104 AEL207-105 AEL207-106 AEL207-107	5750	3440	1300	
40 1 ½ 1 9/16	AELPF208 AELPF208-108 AELPF208-109	148 5 13/16	119 4 1 1/16	6.8 .268	★ 14 9/16	21 1 1/16	60 2.36	11 .433	91 3 9/16	M12 ½	PF208 PF208 PF208	AEL208 AEL208-108 AEL208-109	6550	4000	1500	

① Axial load should be less than 1/3 of radial load.
 * Unit with notched set screw as standard.
 ★ AELPF208 has four bolt holes.

Units: **Millimeters**
INCHES



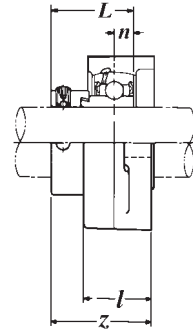
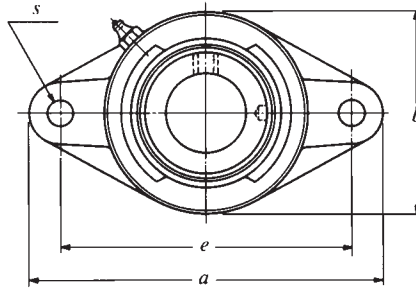
FLANGED UNITS - PRESSED STEEL HOUSING (THREE BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions									Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)		Max. Radial Load (lbs)
		a	e	g	s	l	Di	L	n	(min) F				Dynamic C	Static Co	
12 ½	JELPF201 JELPF201-008	81 3 ¾	63 2 1½	4 .157	7 ⅞	14 ¾	29 1.14	28.6 1.126	6.5 .256	49 1 15/16	M6 ¼	PF203 PF203	JEL201 JEL201-008	2160	1030	600
15 9/16 5/8	JELPF202 JELPF202-009 JELPF202-010	81 3 ¾	63 2 1½	4 .157	7 ⅞	14 ¾	29 1.14	28.6 1.126	6.5 .256	49 1 15/16	M6 ¼	PF203 PF203 PF203	JEL202 JEL202-009 JEL202-010	2160	1030	600
17 1 1/16	JELPF203 JELPF203-011	81 3 ¾	63 2 1½	4 .157	7 ⅞	14 ¾	29 1.14	28.6 1.126	6.5 .256	49 1 15/16	M6 ¼	PF203 PF203	JEL203 JEL203-011	2160	1030	600
20 ¾	JELPF204 JELPF204-012	90 3 13/16	71 2 25/32	4 .157	9 23/64	16 5/8	33.3 1.31	31 1.220	7.5 .295	56 2 7/32	M8 5/16	PF204 PF204	JEL204 JEL204-012	2890	1500	660
25 1 3/16 7/8 15/16 1	JELPF205 JELPF205-013 JELPF205-014 JELPF205-015 JELPF205-100	95 3 ¾	76 3	4 .157	9 23/64	18 23/32	38.1 1.50	31 1.220	7.5 .295	60 2 3/8	M8 5/16	PF205 PF205 PF205 PF205	JEL205 JEL205-013 JEL205-014 JEL205-015 JEL205-100	3150	1770	880
30 1 1/16 1 1/8 1 3/16 1/4	JELPF206 JELPF206-101 JELPF206-102 JELPF206-103 JELPF206-104	113 4 7/16	90 3 13/32	5.2 .205	11 7/16	18 23/32	44.5 1.75	35.7 1.406	9 .354	71 2 25/32	M10 3/8	PF206 PF206 PF206 PF206	JEL206 JEL206-101 JEL206-102 JEL206-103 JEL206-104	4400	2540	1100
35 1 1/4 1 5/16 1 3/8 1 7/16	JELPF207 JELPF207-104 JELPF207-105 JELPF207-106 JELPF207-107	122 4 13/16	100 3 15/16	5.2 .205	11 7/16	20 25/32	55.6 2.19	38.9 1.531	9.5 .374	81 3 3/16	M10 3/8	PF207 PF207 PF207 PF207	JEL207 JEL207-104 JEL207-105 JEL207-106 JEL207-107	5750	3450	1300
40 1 1/2 1 9/16	JELPF208 JELPF208-108 JELPF208-109	148 5 13/16	119 4 1/16	6.8 .268	★ 14 9/16	21 1 1/16	60 2.36	43.7 1.720	11 .433	91 3 9/16	M12 1/2	PF208 PF208 PF208	JEL208 JEL208-108 JEL208-109	6550	4000	1500

ⓘ Axial load should be less than 1/3 of radial load.
★ JELPF208 has four bolt holes.

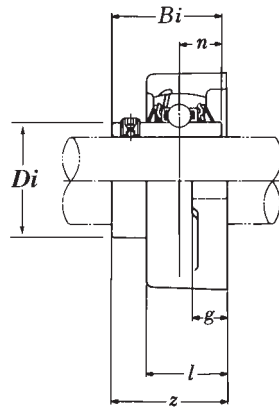
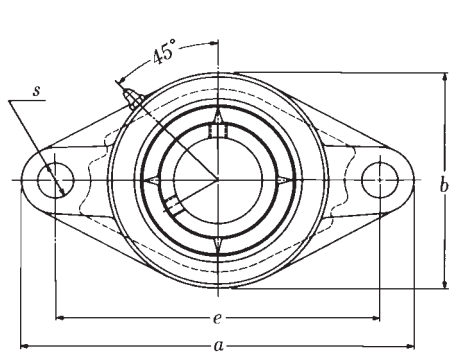
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SERIES
JELFL2
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LOCKING
COLLAR
TYPE

Units: **Millimeters**
INCHES

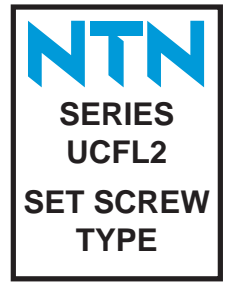


FLANGED UNITS - CAST HOUSING (TWO BOLT)

Shaft Diameter	Complete Flanged Unit Number D ₁	Nominal Dimensions									Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		a	e	s	b	l	z	L	n	Dynamic C				Static C ₀	
20 ¾	JELFL204D1W3 JELFL204-012D1W3	113 4 7/16	90 3 35/64	12 15/32	60 2 3/8	25.5 1	38.5 1 33/64	31.0 1.220	7.5 .295	M10 5/16	FL204D1 FL204D1	JEL204D1W3 JEL204-012D1W3	2,890	1,500	
25 1 1/16 7/8 15/16 1	JELFL205D1W3 JELFL205-013D1W3 JELFL205-014D1W3 JELFL205-015D1W3 JELFL205-100D1W3	130 5 1/8	99 3 57/64	16 5/8	68 2 11/16	27 1 1/16	39.5 1 9/16	31.0 1.220	7.5 .295	M14 1/2	FL205D1 FL205D1	JEL205D1W3 JEL205-013D1W3 JEL205-014D1W3 JEL205-015D1W3 JEL205-100D1W3	3,150	1,770	
30 1 1/16 1 1/8 1 3/16 1 1/4	JELFL206D1W3 JELFL206-101D1W3 JELFL206-102D1W3 JELFL206-103D1W3 JELFL206-104D1W3	148 5 13/16	117 4 39/64	16 5/8	80 3 5/12	31 1 7/32	44.7 1 49/64	35.7 1.406	9 .354	M14 1/2	FL206D1 FL206D1	JEL206D1W3 JEL206-101D1W3 JEL206-102D1W3 JEL206-103D1W3 JEL206-104D1W3	4,400	2,540	
35 1 1/4 1 5/16 1 3/8 1 7/16	JELFL207D1W3 JELFL207-104D1W3 JELFL207-105D1W3 JELFL207-106D1W3 JELFL207-107D1W3	161 6 11/32	130 5 1/8	16 5/8	90 3 17/32	34 1 11/32	48.4 1 29/32	38.9 1.531	9.5 .374	M14 1/2	FL207D1 FL207D1	JEL207D1W3 JEL207-104D1W3 JEL207-105D1W3 JEL207-106D1W3 JEL207-107D1W3	5,750	3,440	
40 1 1/2 1 9/16	JELFL208D1W3 JELFL208-108D1W3 JELFL208-109D1W3	175 6 7/8	144 5 43/64	16 5/8	100 3 15/16	36 1 11/32	53.7 2 7/16	43.7 1.720	11 .433	M14 1/2	FL208D1 FL208D1	JEL208D1W3 JEL208-108D1W3 JEL208-109D1W3	6,550	4,000	
45 1 5/8 1 11/16 1 3/4	JELFL209D1W3 JELFL209-110D1W3 JELFL209-111D1W3 JELFL209-112D1W3	188 7 13/32	148 5 53/64	19 3/4	108 4 1/4	38 1 1/2	54.7 2 5/32	43.7 1.720	11 .433	M16 5/8	FL209D1 FL209D1	JEL209D1W3 JEL209-110D1W3 JEL209-111D1W3 JEL209-112D1W3	7,350	4,590	
50 1 13/16 1 7/8 1 15/16 2	JELFL210D1W3 JELFL210-113D1W3 JELFL210-114D1W3 JELFL210-115D1W3 JELFL210-220D1W3	197 7 3/4	157 6 3/16	19 3/4	115 4 17/32	40 1 9/16	54.7 2 5/32	43.7 1.720	11 .433	M16 5/8	FL210D1 FL210D1	JEL210D1W3 JEL210-113D1W3 JEL210-114D1W3 JEL210-115D1W3 JEL210-220D1W3	7,900	5,220	
55 2 2 1/16 2 1/8 2 3/16	JELFL211D1W3 JELFL211-200D1W3 JELFL211-201D1W3 JELFL211-202D1W3 JELFL211-203D1W3	224 8 13/16	184 7 61/64	19 3/4	130 5 1/8	43 1 11/16	61.4 2 27/64	48.4 1.906	12 .472	M16 5/8	FL211D1 FL211D1	JEL211D1W3 JEL211-200D1W3 JEL211-201D1W3 JEL211-202D1W3 JEL211-203D1W3	9,750	6,570	
60 2 1/4 2 5/16 2 3/8	JELFL212D1W3 JELFL212-204D1W3 JELFL212-205D1W3 JELFL212-206D1W3	250 9 27/32	202 7 61/64	23 29/32	140 5 1/2	48 1 7/8	68.6 2 45/64	53.1 2.091	13.5 .531	M20 3/4	FL212D1 FL212D1	JEL212D1W3 JEL212-204D1W3 JEL212-205D1W3 JEL212-206D1W3	11,800	8,100	



Units: **Millimeters**
INCHES

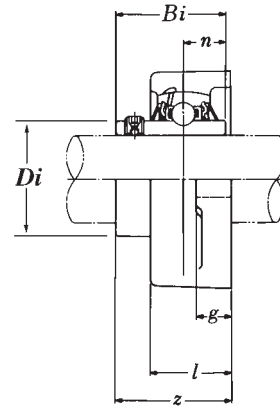
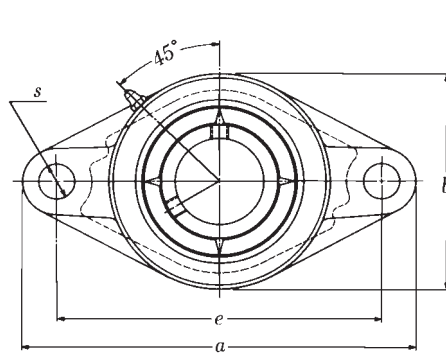


FLANGED UNITS - CAST HOUSING (TWO BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions									Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		a	e	g	l	s	b	z	Bi	n				Dynamic C	Static Co
12 1/2	UCFL201D1 UCFL201-008T	113 4 7/16	90 3 17/32	11 7/16	25.5 1	12 25/64	60 2 3/8	33.3 1 9/16	31 1.220	12.7 .500	M10 5/16	FL204D1 FL204T	UC201D1 UC201-008D1	2,890	1,500
15 9/16 5/8	UCFL202D1 UCFL202-009T UCFL202-010T	113 4 7/16	90 3 17/32	11 7/16	25.5 1	12 25/64	60 2 3/8	33.3 1 9/16	31 1.220	12.7 .500	M10 5/16	FL204D1 FL204T FL204T	UC202D1 UC202-009D1 UC202-010D1	2,890	1,500
17 11/16	UCFL203D1 UCFL203-011T	113 4 7/16	90 3 17/32	11 7/16	25.5 1	12 25/64	60 2 3/8	33.3 1 9/16	31 1.220	12.7 .500	M10 5/16	FL204D1 FL204T	UC203D1 UC203-011D1	2,890	1,500
20 3/4	UCFL204D1 UCFL204-012T	113 4 7/16	90 3 17/32	11 7/16	25.5 1	12 25/64	60 2 3/8	33.3 1 9/16	31 1.220	12.7 .500	M10 5/16	FL204D1 FL204T	UC204D1 UC204-012D1	2,890	1,500
25 13/16 7/8 15/16 1	UCFL205D1 UCFL205-013T UCFL205-014T UCFL205-015T UCFL205-100T	130 5 1/8	99 3 29/32	13 1/2	27 1 1/16	16 15/32	68 2 11/16	35.7 1 13/32	34 1.339	14.3 .563	M14 3/8	FL205D1 FL205T FL205T FL205T FL205T	UC205D1 UC205-013D1 UC205-014D1 UC205-015D1 UC205-100D1	3,150	1,770
30 1 1/16 1 1/8 1 3/16 1 1/4	UCFL206D1 UCFL206-101T UCFL206-102T UCFL206-103T UCFL206-104T	148 5 13/16	117 4 19/32	13 1/2	31 1 7/32	16 29/64	80 3 5/8	40.2 1 37/64	38.1 1.500	15.9 .626	M14 3/8	FL206D1 FL206T FL206T FL206T FL206T	UC206D1 UC206-101D1 UC206-102D1 UC206-103D1 UC206-104D1	4,400	2,540
35 1 1/4 1 5/16 1 3/8 1 7/16	UCFL207D1 UCFL207-104T UCFL207-105T UCFL207-106T UCFL207-107T	161 6 13/32	130 5 1/8	15 19/32	34 1 11/32	16 33/64	90 3 17/32	44.4 1 3/4	42.9 1.689	17.5 .689	M14 7/16	FL207D1 FL207T FL207T FL207T FL207T	UC207D1 UC207-104D1 UC207-105D1 UC207-106D1 UC207-107D1	5,750	3,440
40 1 1/2 1 9/16	UCFL208D1 UCFL208-108T UCFL208-109T	175 6 7/8	144 5 21/32	15 19/32	36 1 13/32	16 33/64	100 3 15/16	51.2 2 1/64	49.2 1.937	19 .748	M14 7/16	FL208D1 FL208T FL208T	UC208D1 UC208-108D1 UC208-109D1	6,550	4,000
45 1 5/8 1 11/16 1 3/4	UCFL209D1 UCFL209-110T UCFL209-111T UCFL209-112T	188 7 13/32	148 5 13/16	16 5/8	38 1 1/2	19 37/64	108 4 1/4	52.2 2 1/16	49.2 1.937	19 .748	M16 1/2	FL209D1 FL209T FL209T FL209T	UC209D1 UC209-110D1 UC209-111D1 UC209-112D1	7,350	4,590
50 1 13/16 1 7/8 1 15/16 2	UCFL210D1 UCFL210-113T UCFL210-114T UCFL210-115T UCFL210-200T	197 7 3/4	157 6 3/16	16 5/8	40 1 9/16	19 37/64	115 4 17/32	54.6 2 3/32	51.6 2.031	19 .748	M16 1/2	FL210D1 FL210T FL210T FL210T FL210T	UC210D1 UC210-113D1 UC210-114D1 UC210-115D1 UC210-200D1	7,900	5,220
55 2 2 1/16 2 1/8 2 3/16	UCFL211D1 UCFL211-200T UCFL211-201T UCFL211-202T UCFL211-203T	224 8 13/16	184 7 1/4	18 23/32	43 1 11/16	19 21/32	130 5 1/8	58.4 2 19/64	55.6 2.189	22.2 .874	M16 9/16	FL211D1 FL211T FL211T FL211T FL211T	UC211D1 UC211-200D1 UC211-201D1 UC211-202D1 UC211-203D1	9,750	6,570
60 2 1/4 2 3/8 2 7/16	UCFL212D1 UCFL212-204T UCFL212-206T UCFL212-207T	250 9 27/32	202 7 15/16	18 23/32	48 1 7/8	23 29/32	140 5 1/2	68.7 2 45/64	65.1 2.563	25.4 1.000	M20 3/4	FL212D1 FL212T FL212T FL212T	UC212D1 UC212-204D1 UC212-206D1 UC212-207D1	11,800	8,100
65 2 1/2	UCFL213D1 UCFL213-208T	258 10 9/32	210 8 3/32	22 7/8	50 1 31/32	23 29/32	155 6 3/32	69.7 2 3/4	65.1 2.563	25.4 1.000	M20 3/4	FL213D1 FL213T	UC213D1 UC213-208D1	12,900	9,000
70 2 11/16 2 3/4	UCFL214D1 UCFL214-211T UCFL214-212T	265 10 7/16	216 8 1/2	22 7/8	54 2 1/8	23 29/32	160 6 3/16	75.4 2 31/32	74.6 2.937	30.2 1.189	M20 3/4	FL214D1 FL214T FL214T	UC214D1 UC214-211D1 UC214-212D1	14,000	9,900
75 2 15/16 3	UCFL215D1 UCFL215-215T UCFL215-300T	275 10 13/16	225 8 27/32	22 7/8	56 2 7/32	23 29/32	165 6 1/2	78.5 3 3/32	77.8 3.063	33.3 1.311	M20 3/4	FL215D1 FL215T FL215T	UC215D1 UC215-215D1 UC215-300D1	14,900	11,100
80 3 1/8	UCFL216D1 UCFL216-302T	290 11 13/32	233 9 3/16	22 7/8	58 2 9/32	25 63/64	180 7 3/32	83.3 3 9/32	82.6 3.252	33.3 1.311	M22 7/8	FL216D1 FL216T	UC216D1 UC216-302D1	16,300	11,900
85 3 1/4	UCFL217D1 UCFL217-304T	305 12	248 9 3/4	24 15/16	63 2 15/32	25 63/64	190 7 15/32	87.6 3 29/64	85.7 3.374	34.1 1.343	M22 7/8	FL217D1 FL217T	UC217D1 UC217-304D1	18,700	14,400
90 3 1/2	UCFL218D1 UCFL218-308T	320 12 1/32	265 10 7/16	24 15/16	68 2 11/16	25 63/64	205 8 1/16	96.3 3 51/64	96 3.780	39.7 1.563	M22 7/8	FL218D1 FL218T	UC218D1 UC218-308D1	21,600	16,100

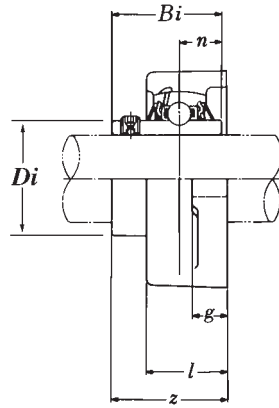
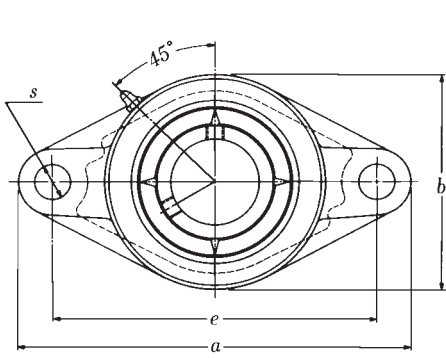


Units: **Millimeters**
INCHES



FLANGED UNITS - CAST HOUSING (TWO BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions									Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		a	e	g	l	s	b	z	Bi	n				Dynamic C	Static Co
25 1 13/16 7/8 1 15/16 1	UCFLX05D1 UCFLX05-013T UCFLX05-014T UCFLX05-015T UCFLX05-100T	141 5 5/16	117 4 1 3/32	13 1/2	30 1 3/16	12 1 15/32	83 3 1/2	40.2 1 19/32	38.1 1.500	15.9 .626	M10 3/8	FLX05D1 FLX05T FLX05T FLX05T FLX05T	UCX05D1 UCX05-013D1 UCX05-014D1 UCX05-015D1 UCX05-100D1	4,390	2,540
30 1 1/16 1 1/8 1 3/16 1 1/4	UCFLX06D1 UCFLX06-101T UCFLX06-102T UCFLX06-103T UCFLX06-104T	156 6 1/8	130 5 1/8	15 19/32	34 1 11/32	16 5/8	95 3 3/4	44.4 1 3/4	42.9 1.689	17.5 .689	M14 1/2	FLX06D1 FLX06T FLX06T FLX06T FLX06T	UCX06D1 UCX06-101D1 UCX06-102D1 UCX06-103D1 UCX06-104D1	5,780	3,440
35 1 5/16 1 3/8 1 7/16	UCFLX07D1 UCFLX07-105T UCFLX07-106T UCFLX07-107T	171 6 3/4	144 5 21/32	16 5/8	38 1 1/2	16 5/8	105 4 1/8	51.2 2 1/32	49.2 1.937	19 .748	M14 1/2	FLX07D1 FLX07T FLX07T FLX07T	UCX07D1 UCX07-105D1 UCX07-106D1 UCX07-107D1	6,550	4,000
40 1 1/2 1 5/16	UCFLX08D1 UCFLX08-108T UCFLX08-109T	179 7 1/16	148 5 27/32	16 5/8	40 1 1/16	16 5/8	111 4 3/8	52.2 2 1/16	49.2 1.937	19 .748	M14 1/2	FLX08D1 FLX08T FLX08T	UCX08D1 UCX08-108D1 UCX08-109D1	7,310	4,590
45 1 5/8 1 11/16 1 3/4 1 13/16	UCFLX09D1 UCFLX09-110T UCFLX09-111T UCFLX09-112T UCFLX09-113T	189 7 7/16	157 6 3/16	16 5/8	40 1 1/16	16 5/8	116 4 9/16	55.6 2 3/16	51.6 2.031	19 .748	M14 1/2	FLX09D1 FLX09T FLX09T FLX09T FLX09T	UCX09D1 UCX09-110D1 UCX09-111D1 UCX09-112D1 UCX09-113D1	7,870	5,220
50 1 7/8 1 15/16 2	UCFLX10D1 UCFLX10-114T UCFLX10-115T UCFLX10-200T	216 8 1/2	184 7 1/4	18 23/32	44 1 23/32	19 3/4	133 5 1/4	59.4 2 11/32	55.6 2.189	22.2 .874	M16 5/8	FLX10D1 FLX10T FLX10T FLX10T	UCX10D1 UCX10-114D1 UCX10-115D1 UCX10-200D1	9,780	6,570



Units: **Millimeters**
INCHES

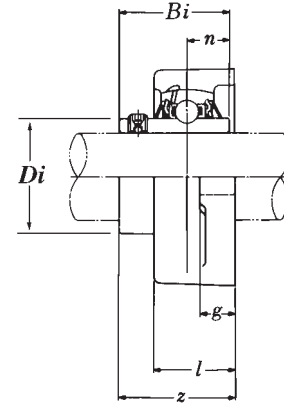
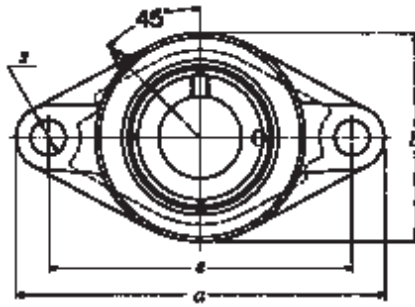


FLANGED UNITS - CAST HOUSING (TWO BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions									Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		a	e	g	l	s	b	z	Bi	n				Dynamic C	Static C ₀
25 7/8 1 1/16 1	UCFL305D1 UCFL305-014T UCFL305-015T UCFL305-100T	150 5 29/32	113 4 7/16	13 1/2	29 1 5/32	19 3/4	80 3 5/32	39 1 17/32	38 1.496	15 .591	M16 5/8	FL305D1 FL305T FL305T FL305T	UC305D1 UC305-014D1 UC305-015D1 UC305-100D1	4,750	2,460
30 1 1/8 1 3/16	UCFL306D1 UCFL306-102T UCFL306-103T	180 7 3/32	134 5 9/32	15 1 9/32	32 1 1/4	23 29/32	90 3 17/32	44 1 47/64	43 1.693	17 .669	M20 3/4	FL306D1 FL306T FL306T	UC306D1 UC306-102D1 UC306-103D1	6,000	3,400
35 1 1/4 1 5/16 1 3/8 1 7/16	UCFL307D1 UCFL307-104T UCFL307-105T UCFL307-106T UCFL307-107T	185 7 5/32	141 5 9/16	16 5/8	36 1 13/32	23 29/32	100 3 15/16	49 1 59/64	48 1.890	19 .748	M20 3/4	FL307D1 FL307T FL307T FL307T FL307T	UC307D1 UC307-104D1 UC307-105D1 UC307-106D1 UC307-107D1	7,500	4,300
40 1 1/2	UCFL308D1 UCFL308-108T	200 7 7/8	158 6 7/8	17 2 1/32	40 1 9/16	23 29/32	112 4 13/32	56 2 13/64	52 2.047	19 .748	M20 3/4	FL308D1 FL308T	UC308D1 UC308-108D1	9,150	5,400
45 1 5/8 1 11/16 1 3/4	UCFL309D1 UCFL309-110T UCFL309-111T UCFL309-112T	230 9 1/16	177 6 31/32	18 2 3/32	44 1 23/32	25 63/64	125 4 29/32	60 2 23/64	57 2.244	22 .866	M22 7/8	FL309D1 FL309T FL309T FL309T	UC309D1 UC309-110D1 UC309-111D1 UC309-112D1	11,900	7,200
50 1 7/8 1 5/16	UCFL310D1 UCFL310-114T UCFL310-115T	240 9 7/16	187 7 3/8	19 3/4	48 1 7/8	25 63/64	140 5 1/2	67 2 41/64	61 2.402	22 .866	M22 7/8	FL310D1 FL310T FL310T	UC310D1 UC310-114D1 UC310-115D1	13,900	8,600
55 2 2 1/8 2 3/16	UCFL311D1 UCFL311-200T UCFL311-202T UCFL311-203T	250 9 27/32	198 7 25/32	20 29/32	52 2 1/16	25 63/64	150 5 29/32	71 2 51/64	66 2.598	25 .984	M22 7/8	FL311D1 FL311T FL311T FL311T	UC311D1 UC311-200D1 UC311-202D1 UC311-203D1	16,100	10,100
60 2 1/4 2 3/8 2 7/16	UCFL312D1 UCFL312-204T UCFL312-206T UCFL312-207T	270 10 5/8	212 8 11/32	22 7/8	56 2 7/32	31 1 7/32	160 6 5/16	78 3 5/64	71 2.795	26 1.024	M27 1	FL312D1 FL312T FL312T FL312T	UC312D1 UC312-204D1 UC312-206D1 UC312-207D1	18,400	11,700
65 2 1/2	UCFL313D1 UCFL313-208T	295 11 5/8	240 9 7/16	25 3 1/32	58 2 9/32	31 1 7/32	175 6 7/8	78 3 5/64	75 2.953	30 1.181	M27 1	FL313D1 FL313T	UC313D1 UC313-208D1	20,800	13,400
70 2 11/16 2 3/4	UCFL314D1 UCFL314-211T UCFL314-212T	315 12 13/32	250 9 27/32	28 1 3/32	61 2 13/32	35 1 3/8	185 7 9/32	81 3 3/16	78 3.071	33 1.299	M30 1 1/8	FL314D1 FL314T FL314T	UC314D1 UC314-211D1 UC314-212D1	23,400	15,300
75 2 5/16 3	UCFL315D1 UCFL315-215T UCFL315-300T	320 12 19/32	260 10 1/4	30 1 3/16	66 2 19/32	35 1 3/8	195 7 11/16	89 3 1/2	82 3.228	32 1.260	M30 1 1/8	FL315D1 FL315T FL315T	UC315D1 UC315-215D1 UC315-300D1	25,500	17,400
80 3 1/8 3 3/16	UCFL316D1 UCFL316-302T UCFL316-303T	355 13 31/32	285 11 7/32	32 1 1/4	68 2 11/16	38 1 1/2	210 8 9/32	90 3 39/64	86 3.386	34 1.339	M33 1 1/4	FL315D1 FL316T FL316T	UC316D1 UC316-302D1 UC316-303D1	27,600	19,500
85 3 1/4	UCFL317D1 UCFL317-304T	370 14 9/16	300 11 13/16	32 1 1/4	74 2 29/32	38 1 1/2	220 8 21/32	100 3 15/16	96 3.780	40 1.575	M33 1 1/4	FL317D1 FL317T	UC317D1 UC317-304D1	29,800	21,800
90 3 7/16 3 1/2	UCFL318D1 UCFL318-307T UCFL318-308T	385 15 5/32	315 12 13/32	36 1 13/32	76 3	38 1 1/2	235 9 1/4	100 3 15/16	96 3.780	40 1.575	M33 1 1/4	FL318D1 FL318T FL318T	UC318D1 UC318-307D1 UC318-308D1	32,000	24,100
95 3 3/4	UCFL319D1 UCFL319-312T	405 15 19/16	330 13	40 1 9/16	94 3 11/16	41 1 39/64	250 9 27/32	121 4 49/64	103 4.055	41 1.614	M36 1 3/8	FL319D1 FL319T	UC319D1 UC319-312D1	34,500	26,600
100 3 15/16 4	UCFL320D1 UCFL320-315T UCFL320-400T	440 17 9/16	360 14 3/16	40 1 9/16	94 3 11/16	44 1 47/64	270 10 5/8	125 4 59/64	108 4.252	42 1.654	M39 1 1/2	FL320D1 FL320T FL320T	UC320D1 UC320-315D1 UC320-400D1	39,000	31,500
105	UCFL321D1	440	360	40	94	44	270	127	112	44	M39	FL321D1	UC321D1	41,500	34,500
110	UCFL322D1	470	390	42	96	44	300	131	117	46	M39	FL322D1	UC322D1	46,000	40,500
120	UCFL324D1	520	430	48	110	47	330	140	126	51	M42	FL324D1	UC324D1	46,500	41,500
130	UCFL326D1	550	460	50	115	47	360	146	135	54	M42	FL326D1	UC326D1	51,500	48,000
140	UCFL328D1	600	500	60	125	51	400	161	145	59	M45	FL328D1	UC328D1	57,000	55,500

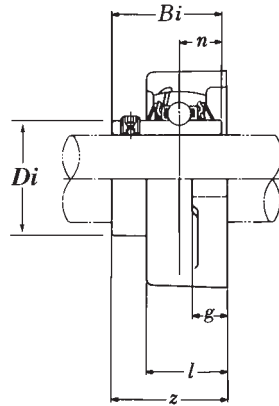
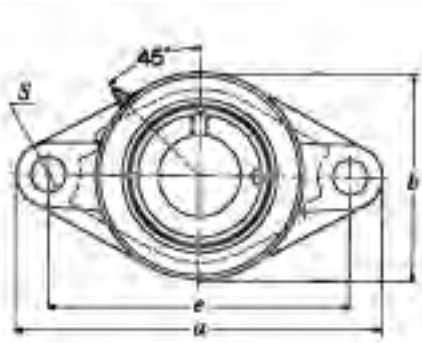
NTN
SERIES
UELFL2
ECCENTRIC
LOCKING
COLLAR
TYPE

Units: **Millimeters**
INCHES



FLANGED UNITS - CAST HOUSING (TWO BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions									Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		a	e	g	l	s	z	Bi	Di	n				Dynamic C	Static Co
20 3/4	UELFL204D1 UELFL204-012T	113 4 7/16	90 3 17/32	11 7/16	25.5 1	12 25/64	41.6 1 41/64	43.7 1.720	33 1.299	17.1 .673	M10 5/16	FL204D1 FL204T	UEL204D1 UEL204-012D1	2,890	1,500
25 1 13/16 7/8 1 1/16 1	UELFL205D1 UELFL205-013T UELFL205-014T UELFL205-015T UELFL205-100T	130 5 1/8	99 3 29/32	13 1/2	27 1 1/16	16 15/32	42.9 1 11/16	44.4 1.748	38 1.496	17.5 .689	M14 3/8	FL205D1 FL205T FL205T FL205T FL205T	UEL205D1 UEL205-013D1 UEL205-014D1 UEL205-015D1 UEL205-100D1	3,150	1,770
30 1 1/16 1 1/8 1 3/16 1 1/4	UELFL206D1 UELFL206-101T UELFL206-102T UELFL206-103T UELFL206-104T	148 5 13/16	117 4 19/32	13 1/2	31 1 7/32	16 29/64	48.1 1 57/64	48.4 1.906	44.5 1.752	18.3 .720	M14 3/8	FL206D1 FL206T FL206T FL206T FL206T	UEL206D1 UEL206-101D1 UEL206-102D1 UEL206-103D1 UEL206-104D1	4,400	2,540
35 1 1/4 1 5/16 1 3/8 1 7/16	UELFL207D1 UELFL207-104T UELFL207-105T UELFL207-106T UELFL207-107T	161 6 1/8	130 5 3/8	15 19/32	34 1 1/32	16 29/64	51.3 2 1/64	51.1 2.012	55.5 2.185	18.8 .740	M14 7/16	FL207D1 FL207T FL207T FL207T FL207T	UEL207D1 UEL207-104D1 UEL207-105D1 UEL207-106D1 UEL207-107D1	5,750	3,440
40 1 1/2 1 9/16	UELFL208D1 UELFL208-108T UELFL208-109T	175 6 7/8	144 5 21/32	15 19/32	36 1 13/32	16 33/64	55.9 2 13/64	56.3 2.217	60 2.362	21.4 .843	M14 7/16	FL207D1 FL208T FL208T	UEL208D1 UEL208-108D1 UEL208-109D1	6,550	4,000
45 1 5/8 1 11/16 1 3/4	UELFL209D1 UELFL209-110T UELFL209-111T UELFL209-112T	188 7 13/32	148 5 13/16	16 9/8	38 1 1/2	19 37/64	56.9 2 15/64	56.3 2.217	63.5 2.500	21.4 .843	M16 1/2	FL209D1 FL209T FL209T FL209T	UEL209D1 UEL209-110D1 UEL209-111D1 UEL209-112D1	7,350	4,590
50 1 13/16 1 7/8 1 9/16 2	UELFL210D1 UELFL210-113T UELFL210-114T UELFL210-115T UELFL210-200T	197 7 3/4	157 6 3/16	16 5/8	40 1 9/16	19 37/64	60.1 2 23/64	62.7 2.469	69.5 2.736	24.6 .969	M16 1/2	FL210D1 FL210T FL210T FL210T FL210T	UEL210D1 UEL210-113D1 UEL210-114D1 UEL210-115D1 UEL210-200D1	7,900	5,220
55 2 2 1/16 2 1/8 2 3/16	UELFL211D1 UELFL211-200T UELFL211-201T UELFL211-202T UELFL211-203T	224 8 13/16	184 7 1/4	18 23/32	43 1 11/16	19 21/32	68.6 2 45/64	71.4 2.811	76 2.992	27.8 1.094	M16 9/16	FL211D1 FL211T FL211T FL211T FL211T	UEL211D1 UEL211-200D1 UEL211-201D1 UEL211-202D1 UEL211-203D1	9,750	6,570
60 2 1/4 2 3/8 2 7/16	UELFL212D1 UELFL212-204T UELFL212-206T UELFL212-207T	250 9 27/32	202 7 15/16	18 23/32	48 1 7/8	23 29/32	75.8 2 63/64	77.8 3.063	84 3.307	31 1.220	M20 3/4	FL212D1 FL212T FL212T FL212T	UEL212D1 UEL212-204D1 UEL212-206D1 UEL212-207D1	11,800	8,100
65 2 1/2	UELFL213D1 UELFL213-208T	258 10 5/32	210 8 9/32	22 7/8	50 1 31/32	23 29/32	81.55 3 13/64	85.7 3.374	97 3.819	34.15 1.344	M20 3/4	FL213D1 FL213T	UEL213D1 UEL213-208D1	12,900	9,000
70 2 11/16 2 3/4	UELFL214D1 UELFL214-211T UELFL214-212T	265 10 7/16	216 8 1/2	22 7/8	54 2 1/8	23 29/32	82.55 3 1/4	85.7 3.374	97 3.819	34.15 1.344	M20 3/4	FL214D1 FL214T FL214T	UEL214D1 UEL214-211D1 UEL214-212D1	14,000	9,900
75 2 15/16 3	UELFL215D1 UELFL215-215T UELFL215-300T	275 10 13/16	225 8 27/32	22 7/8	56 2 1/32	23 29/32	88.7 3 31/64	92 3.622	102 4.016	37.3 1.469	M20 3/4	FL215D1 FL215T FL215T	UEL215D1 UEL215-215D1 UEL215-300D1	14,900	11,130



Units: **Millimeters**
INCHES

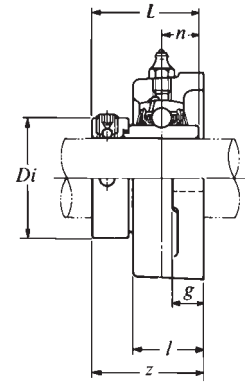
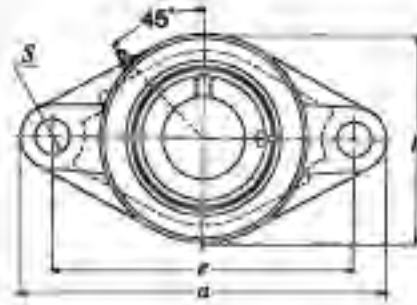


FLANGED UNITS - CAST HOUSING (TWO BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions									Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		a	e	g	l	s	z	Bi	Di	n				Dynamic C	Static Co
25 7/8 1 1/16 1	UELFL305D1 UELFL305-014T UELFL305-015T UELFL305-100T	150 5 23/32	113 4 7/16	13 1/2	29 1 5/32	19 3/4	46.1 1 13/16	46.8 1.843	42.8 1.685	16.7 .657	M16 5/8	FL305D1 FL305T FL305T FL305T	UEL305D1 UEL305-014D1 UEL305-015D1 UEL305-100D1	4,750	2,460
30 1 1/8 1 3/16	UELFL306D1 UELFL306-102T UELFL306-103T	180 7 3/32	134 5 9/32	15 19/32	32 1 1/4	23 29/32	50.5 1 63/64	50 1.969	50 1.969	17.5 .689	M20 3/4	FL306D1 FL306T FL306T	UEL306D1 UEL306-102D1 UEL306-103D1	6,000	3,400
35 1 1/4 1 5/16 1 3/8 1 7/16	UELFL307D1 UELFL307-104T UELFL307-105T UELFL307-106T UELFL307-107T	185 7 9/32	141 5 9/16	16 5/8	36 1 13/32	23 29/32	53.3 2 3/32	51.6 2.031	55 2.165	18.3 .720	M20 3/4	FL307D1 FL307T FL307T FL307T FL307T	UEL307D1 UEL307-104D1 UEL307-105D1 UEL307-106D1 UEL307-107D1	7,500	4,300
40 1 1/2	UELFL308D1 UELFL308-108T	200 7 7/8	158 6 7/32	17 2 1/32	40 1 9/16	23 29/32	60.3 3 3/8	57.1 2.248	63.5 2.500	19.8 .780	M20 3/4	FL308D1 FL308T	UEL308D1 UEL308-108D1	9,150	5,400
45 1 5/8 1 11/16 1 3/4	UELFL309D1 UELFL309-110T UELFL309-111T UELFL309-112T	230 9 1/16	177 6 31/32	18 23/32	44 1 23/32	25 63/64	63.9 2 33/64	58.7 2.311	70 2.756	19.8 .780	M22 7/8	FL309D1 FL309T FL309T FL309T	UEL309D1 UEL309-110D1 UEL309-111D1 UEL309-112D1	11,900	7,200
50 1 7/8 1 15/16	UELFL310D1 UELFL310-114T UELFL310-115T	240 9 7/16	187 7 3/8	19 3/4	48 1 7/8	25 63/64	70 2 3/4	66.6 2.622	76.2 3.000	24.6 .969	M22 7/8	FL310D1 FL310T FL310T	UEL310D1 UEL310-114D1 UEL310-115D1	13,900	8,600
55 2 2 1/8 2 3/16	UELFL311D1 UELFL311-200T UELFL311-202T UELFL311-203T	250 9 27/32	198 7 29/32	20 29/32	52 2 1/16	25 63/64	75.2 2 61/64	73 2.874	83 3.268	27.8 1.094	M22 7/8	FL311D1 FL311T FL311T FL311T	UEL311D1 UEL311-200D1 UEL311-202D1 UEL311-203D1	16,100	10,100
60 2 1/4 2 3/8 2 7/16	UELFL312D1 UELFL312-204T UELFL312-206T UELFL312-207T	270 10 5/8	212 8 11/32	22 7/8	56 2 7/32	31 1 7/32	81.45 3 13/64	79.4 3.126	89 3.504	30.95 1.219	M27 1	FL312D1 FL312T FL312T FL312T	UEL312D1 UEL312-204D1 UEL312-206D1 UEL312-207D1	18,400	11,700
65 2 1/2	UELFL313D1 UELFL313-208T	295 11 5/8	240 9 7/16	25 3 1/32	58 2 9/32	31 1 7/32	86.15 3 25/64	85.7 3.374	97 3.819	32.55 1.281	M27 1	FL313D1 FL313T	UEL313D1 UEL313-208D1	20,800	13,400
70 2 11/16 2 3/4	UELFL314D1 UELFL314-211T UELFL314-212T	315 12 13/32	250 9 27/32	28 1 3/32	61 2 13/32	35 1 3/8	93.95 3 45/64	92.1 3.626	102 4.016	34.15 1.344	M30 1 1/8	FL314D1 FL314T FL314T	UEL314D1 UEL314-211D1 UEL314-212D1	23,400	15,300
75 2 15/16 3	UELFL315D1 UELFL315-215T UELFL315-300T	320 12 19/32	260 10 1/4	30 1 3/16	66 2 19/32	35 1 3/8	101.7 4	100 3.937	113 4.449	37.3 1.469	M30 1 1/8	FL315D1 FL315T FL315T	UEL315D1 UEL315-215D1 UEL315-300D1	25,500	17,400
80 3 1/8 3 3/16	UELFL316D1 UELFL316-302T UELFL316-303T	355 13 31/32	285 11 7/32	32 1 1/4	68 2 11/16	38 1 1/2	103.9 4 3/32	106.4 4.189	119 4.685	40.5 1.594	M33 1 1/4	FL316D1 FL316T FL316T	UEL316D1 UEL316-302D1 UEL316-303D1	27,600	19,500
85 3 1/4	UELFL317D1 UELFL317-304T	370 14 9/16	300 11 13/16	32 1 1/4	74 2 29/32	38 1 1/2	111.45 4 25/64	109.5 4.311	127 5.000	42.05 1.656	M33 1 1/4	FL317D1 FL317T	UEL317D1 UEL317-304D1	29,800	21,800
90 3 7/16 3 1/2	UELFL318D1 UELFL318-307T UELFL318-308T	385 15 5/32	315 12 13/32	36 1 13/32	76 3	38 1 1/2	116.25 4 37/64	115.9 4.563	133 5.236	43.65 1.719	M33 1 1/4	FL318D1 FL318T FL318T	UEL318D1 UEL318-307D1 UEL318-308D1	32,000	24,100
95 3 3/4	UELFL319D1 UELFL319-312T	405 15 15/16	330 13	40 1 9/16	94 3 11/16	41 1 39/64	142.4 5 39/64	122.3 4.815	140 5.512	38.9 1.531	M36 1 3/8	FL319D1 FL319T	UEL319D1 UEL319-312D1	34,500	26,600
100 3 15/16 4	UELFL320D1 UELFL320-315T UELFL320-400T	440 17 5/16	360 14 3/16	40 1 9/16	94 3 11/16	44 1 47/64	137.6 5 27/64	128.6 5.063	146 5.748	50 1.969	M39 1 1/2	FL320D1 FL320T FL320T	UEL320D1 UEL320-315D1 UEL320-400D1	39,000	31,500
105	UELFL321D1	440	360	40	94	44	150.3	139.7	157	48.4	M39	FL321D1	UEL321D1	41,500	34,500
110	UELFL322D1	470	390	42	96	44	152.1	141.3	168	49.2	M39	FL322D1	UEL322D1	46,000	40,500

NTN
SERIES
UELFLU2
ECCENTRIC
LOCKING
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TYPE

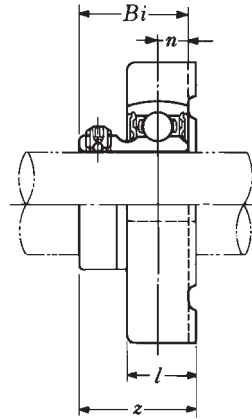
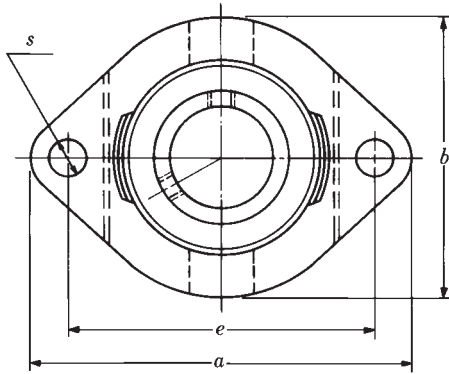
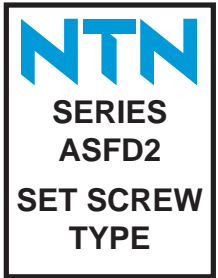
Units: **Millimeters**
INCHES



FLANGED UNITS - CAST HOUSING (TWO BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions										Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		a	e	g	l	s	b	z	L	Di	n				Dynamic C	Static Co
20 3/4	UELFLU204D1 UELFLU204-012T	113 4 7/16	90 3 17/32	15 19/32	29.5 1 5/32	11.5 25/64	61 2 13/32	45.6 1 51/64	43.7 1.720	33.3 1.31	17.1 .673	M10 5/16	FLU204D1 FLU204T	UEL204D1 UEL204-012D1	2,890	1,500
25 1 1/16 7/8 15/16 1	UELFLU205D1 UELFLU205-013T UELFLU205-014T UELFLU205-015T UELFLU205-100T	125 4 29/32	99 3 29/32	15 19/32	30 1 1/16	11.5 29/64	70 2 3/4	45.9 1 11/16	44.4 1.748	38.1 1.50	17.5 .689	M10 3/8	FLU205D1 FLU205T FLU205T FLU205T FLU205T	UEL205-013D1 UEL205-014D1 UEL205-015D1 UEL205-100D1	3,150	1,770
30 1 1/8 1 1/8 1 3/16 1 1/4	UELFLU206D1 UELFLU206-101T UELFLU206-102T UELFLU206-103T UELFLU206-104T	142 5 19/32	116.5 4 19/32	16 5/8	33 1 1/16	11.5 29/64	83 3 3/32	50.1 1 31/32	48.4 1.906	44.5 1.75	18.3 .720	M10 3/8	FLU206D1 FLU206T FLU206T FLU206T FLU206T	UEL206D1 UEL206-101D1 UEL206-102D1 UEL206-103D1 UEL206-104D1	4,400	2,540
35 1 1/4 1 5/16 1 3/8 1 7/16	UELFLU207D1 UELFLU207-104T UELFLU207-105T UELFLU207-106T UELFLU207-107T	156 6 5/32	130 5 1/8	17 21/32	36 1 13/32	14 33/64	96 3 25/32	53.3 2 3/32	51.1 2.012	55.6 2.19	18.8 .740	M12 7/16	FLU207D1 FLU207T FLU207T FLU207T FLU207T	UEL207D1 UEL207-104D1 UEL207-105D1 UEL207-106D1 UEL207-107D1	5,750	3,440
40 1 1/2 1 1/16	UELFLU208D1 UELFLU208-108T UELFLU208-109T	172 6 25/32	143.5 5 21/32	17 21/32	39 1 17/32	14 33/64	105 4 1/8	58.9 2 5/16	56.3 2.217	60.2 2.37	21.4 .843	M12 7/16	FLU208D1 FLU208T FLU208T	UEL208D1 UEL208-108D1 UEL208-109D1	6,550	4,000
45 1 5/8 1 11/16 1 3/4	UELFLU209D1 UELFLU209-110T UELFLU209-111T UELFLU209-112T	180 7 3/32	148.5 5 27/32	18 23/32	40 1 1/16	16 37/64	111 4 3/8	58.9 2 5/16	56.3 2.217	63.5 2.50	21.4 .843	M14 1/2	FLU209D1 FLU209T FLU209T FLU209T	UEL209D1 UEL209-110D1 UEL209-111D1 UEL209-112D1	7,350	4,590
50 1 13/16 1 7/8 1 15/16 2	UELFLU210D1 UELFLU210-113T UELFLU210-114T UELFLU210-115T UELFLU210-200T	190 7 19/32	157 6 3/16	20 25/32	46 1 13/16	18 37/64	116 4 9/16	66.1 2 39/64	62.7 2.469	69.9 2.75	24.6 .969	M16 1/2	FLU210D1 FLU210T FLU210T FLU210T FLU210T	UEL210D1 UEL210-113D1 UEL210-114D1 UEL210-115D1 UEL210-200D1	7,900	5,220
55 2 2 1/16 2 1/8 2 3/16	UELFLU211D1 UELFLU211-200T UELFLU211-201T UELFLU211-202T UELFLU211-203T	217 8 17/32	184 7 1/4	21 13/16	49 1 19/16	18 21/32	134 5 3/32	74.6 2 15/16	71.4 2.811	76.2 3.00	27.8 1.094	M16 5/16	FLU211D1 FLU211T FLU211T FLU211T FLU211T	UEL211D1 UEL211-200D1 UEL211-201D1 UEL211-202D1 UEL211-203D1	9,750	6,570
60 2 1/4 2 3/8 2 7/16	UELFLU212D1 UELFLU212-204T UELFLU212-206T UELFLU212-207T	235 9 1/4	202 7 15/16	21 13/16	53 2 3/32	18 21/32	138 5 7/16	80.8 2 3/16	77.8 3.063	84.1 3.31	31 1.220	M16 5/16	FLU212D1 FLU212T FLU212T FLU212T	UEL212D1 UEL212-204D1 UEL212-206D1 UEL212-207D1	11,800	8,100
65 2 1/2	UELFLU213D1 UELFLU213-208T	248 9 3/4	210 8 9/32	22 7/8	59 2 5/16	20.5 13/16	152 5 31/32	89.55 3 17/32	85.7 3.374	97.0 3.82	34.15 1.344	M18 5/8	FLU213D1 FLU213T	UEL213D1 UEL213-208D1	12,900	9,000
70 2 11/16 2 3/4	UELFLU214D1 UELFLU214-211T UELFLU214-212T	257 10 1/8	216 8 1/2	22 7/8	62 2 7/16	20.5 13/16	159 6 1/4	89.55 3 17/32	85.7 3.374	97.0 3.82	34.15 1.344	M18 5/8	FLU214D1 FLU214T FLU214T	UEL214D1 UEL214-211D1 UEL214-212D1	14,000	9,900
75 2 15/16 3	UELFLU215D1 UELFLU215-215T UELFLU215-300T	266 10 19/32	225 8 27/32	22 7/8	65 2 5/16	20.5 13/16	165 6 1/2	95.7 3 49/64	92 3.622	102 4.02	37.3 1.469	M18 5/8	FLU215D1 FLU215T FLU215T	UEL215D1 UEL215-215D1 UEL215-300D1	14,900	11,130

Units: **Millimeters**
INCHES



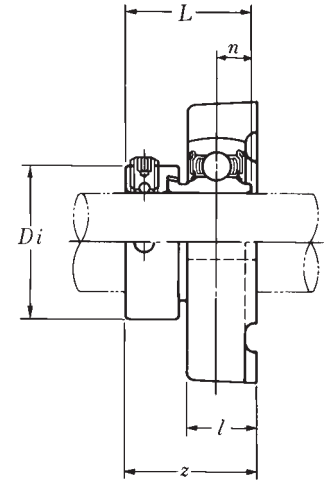
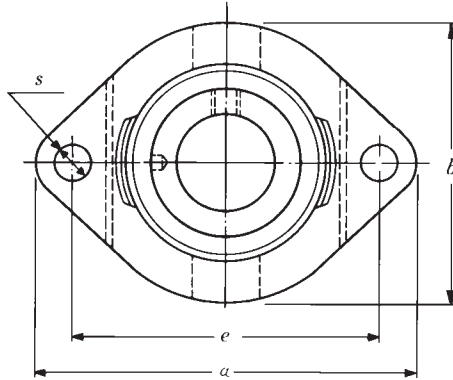
FLANGED UNITS - CAST HOUSING (TWO BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions								Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		a	e	l	s	b	z	Bi	n				Dynamic C	Static Co
12 ½	ASFD201 ASFD201-008	81 3 ¾	63 2 1 5/32	15 1 9/32	7 7/32	59 2 5/16	24.5 3 1/32	22 .866	6 .236	M6 ¼	FD201 FD201	AS201 AS201-008	2,160	1,040
15 9/16 5/8	ASFD202 ASFD202-009 ASFD202-010	81 3 ¾	63 2 1 5/32	15 1 9/32	7 7/32	59 2 5/16	24.5 3 1/32	22 .866	6 .236	M6 ¼	FD201 FD201 FD201	AS202 AS202-009 AS202-010	2,160	1,040
17 1 1/16	ASFD203 *ASFD203-011	81 3 ¾	63 2 1 5/32	15 1 9/32	7 7/32	59 2 5/16	24.5 3 1/32	22 .866	6 .236	M6 ¼	FD201 FD201	AS203 AS203-011	2,160	1,040
20 ¾	ASFD204 ASFD204-012	90 3 1 7/32	71 2 25/32	17 2 1/32	10 25/64	67 2 5/8	27.5 1 5/64	25 .984	7 .276	M8 5/16	FD204 FD204	AS204 AS204-012	2,890	1,500
25 1 3/16 7/8 1 1/4 1 1/8	ASFD205 ASFD205-013 ASFD205-014 ASFD205-015 ASFD205-100	95 3 ¾	76 3	17 2 1/32	10 25/64	71 2 25/32	29 1 9/64	27 1.063	7.5 .295	M8 5/16	FD205 FD205 FD205 FD205	AS205 AS205-013 AS205-014 AS205-015 AS205-100	3,150	1,770
30 1 1/16 1 1/8 1 3/16 1 1/4	ASFD206 ASFD206-101 ASFD206-102 ASFD206-103 *ASFD206-104	113 4 7/16	90 3 1 7/32	21 1 3/16	12 1 5/32	84 3 5/16	33 1 19/64	29 1.142	8 .315	M10 3/8	FD206 FD206 FD206 FD206	AS206 AS206-101 AS206-102 AS206-103 AS206-104	4,400	2,540
35 1 1/4 1 5/16 1 3/8 1 7/16	ASFD207 ASFD207-104 ASFD207-105 ASFD207-106 *ASFD207-107	125 4 29/32	100 3 1 5/16	22 7/8	12 1 5/32	94 3 1 1/16	38 1 1/2	34 1.339	8.5 .335	M10 3/8	FD207 FD207 FD207 FD207	AS207 AS207-104 AS207-105 AS207-106 AS207-107	5,750	3,440

* Unit with notched set screw as standard.

NTN
SERIES
AELFD2
ECCENTRIC
LOCKING
COLLAR
TYPE

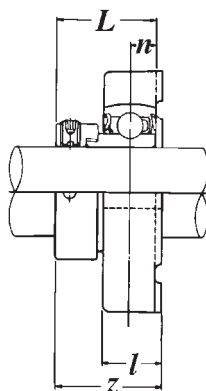
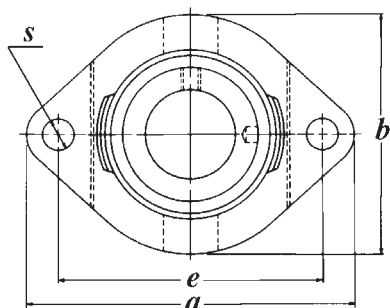
Units: **Millimeters**
INCHES



FLANGED UNITS - CAST HOUSING (TWO BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions								Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		a	e	s	l	b	Di	L	n				Dynamic C	Static Co
12 ½	AELFD201 AELFD201-008	81 3 ¾	63 2 ½	7 ¾	15 1 ½	59 2 ⅝	29 1.14	28.6 1.126	6.5 .256	M6 ¼	FD201 FD201	AEL201 AEL201-008	2,160	1,040
15 ⅝	AELFD202 AELFD202-009 AELFD202-010	81 3 ¾	63 2 ½	7 ¾	15 1 ½	59 2 ⅝	29 1.14	28.6 1.126	6.5 .256	M6 ¼	FD201 FD201 FD201	AEL202 AEL202-009 AEL202-010	2,160	1,040
17 1 ¼	AELFD203 AELFD203-011	81 3 ¾	63 2 ½	7 ¾	15 1 ½	59 2 ⅝	29 1.14	28.6 1.126	6.5 .256	M6 ¼	FD201 FD201	AEL203 AEL203-011	2,160	1,040
20 ¾	AELFD204 AELFD204-012	90 3 17/32	71 2 25/32	10 25/64	17 2 ½	67 2 ⅝	33.3 1.31	31 1.220	7.5 .295	M8 ⅝	FD204 FD204	AEL204 AEL204-012	2,890	1,500
25 1 3/16 7/8 15/16 1	AELFD205 AELFD205-013 AELFD205-014 AELFD205-015 AELFD205-100	95 3 ¾	76 3	10 25/64	17 2 ½	71 2 25/32	38.1 1.50	31 1.220	7.5 .295	M8 ⅝	FD205 FD205 FD205 FD205	AEL205 AEL205-013 AEL205-014 AEL205-015 AEL205-100	3,150	1,770
30 1 1/16 1 1/8 1 3/16 1 1/4	AELFD206 AELFD206-101 AELFD206-102 AELFD206-103 AELFD206-104	113 4 7/16	90 3 17/32	12 1 9/32	21 1 3/16	84 3 9/16	44.5 1.75	35.7 1.406	9 .354	M10 ¾	FD206 FD206 FD206 FD206	AEL206 AEL206-101 AEL206-102 AEL206-103 AEL206-104	4,400	2,540
35 1 1/4 1 5/16 1 3/8 1 7/16	AELFD207 AELFD207-104 AELFD207-105 AELFD207-106 AELFD207-107	125 4 29/32	100 3 19/16	12 1 9/32	22 7/8	94 3 11/16	55.6 2.19	38.9 1.531	9.5 .374	M10 ¾	FD207 FD207 FD207 FD207	AEL207 AEL207-104 AEL207-105 AEL207-106 AEL207-107	5,750	3,440

Units: **Millimeters**
INCHES

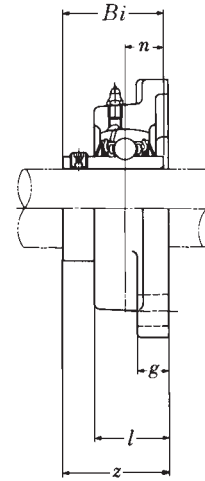
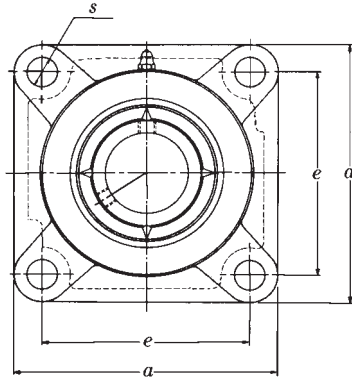


FLANGED UNITS - CAST HOUSING (TWO BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions									Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		a	e	s	b	l	z	Di	L	n				Dynamic C	Static Co
12 ½	JELFD201 JELFD201-008	81 3 ¾	63 2 1 ½	7 ¾	59 2 ¾	15 1 ½	30.6 1 1 ¾	29 1.14	28.6 1.126	6.5 .256	M6 ¼	FD201 FD201	JEL201 JEL201-008	2,160	1,030
15 9/16 5/8	JELFD202 JELFD202-009 JELFD202-010	81 3 ¾	63 2 1 ½	7 ¾	59 2 ¾	15 1 ½	30.6 1 1 ¾	29 1.14	28.6 1.126	6.5 .256	M6 ¼	FD201 FD201 FD201	JEL202 JEL202-009 JEL202-010	2,160	1,030
17 1 1/16	JELFD203 JELFD203-011	81 3 ¾	63 2 1 ½	7 ¾	59 2 ¾	15 1 ½	30.6 1 1 ¾	29 1.14	28.6 1.126	6.5 .256	M6 ¼	FD201 FD201	JEL203 JEL203-011	2,160	1,030
20 ¾	JELFD204 JELFD204-012	90 3 17/32	71 2 25/32	10 25/64	67 2 5/8	17 2 1/2	33 1 19/64	33.3 1.31	31 1.220	7.5 .295	M8 5/16	FD204 FD204	JEL204 JEL204-012	2,890	1,500
25 1 3/16 7/8 15/16 1	JELFD205 JELFD205-013 JELFD205-014 JELFD205-015 JELFD205-100	95 3 ¾	76 3	10 25/64	71 2 25/32	17 2 1/2	33 1 19/64	38.1 1.50	31 1.220	7.5 .295	M8 5/16	FD205 FD205 FD205 FD205	JEL205 JEL205-013 JEL205-014 JEL205-015 JEL205-100	3,150	1,770
30 1 1/16 1 1/8 1 3/16 1 ¼	JELFD206 JELFD206-101 JELFD206-102 JELFD206-103 JELFD206-104	113 4 7/16	90 3 17/32	12 15/32	84 3 5/16	21 1 3/16	38.7 1 17/32	44.5 1.75	35.7 1.406	9 .354	M10 ¾	FD206 FD206 FD206 FD206	JEL206 JEL206-101 JEL206-102 JEL206-103 JEL206-104	4,400	2,540
35 1 ¼ 1 5/16 1 ¾ 1 7/16	JELFD207 JELFD207-104 JELFD207-105 JELFD207-106 JELFD207-107	125 4 29/32	100 3 15/16	12 15/32	94 3 11/16	22 7/8	41.9 1 21/32	55.6 2.19	38.9 1.531	9.5 .374	M10 ¾	FD207 FD207 FD207 FD207	JEL207 JEL207-104 JEL207-105 JEL207-106 JEL207-107	5,750	3,450



Units: **Millimeters**
INCHES



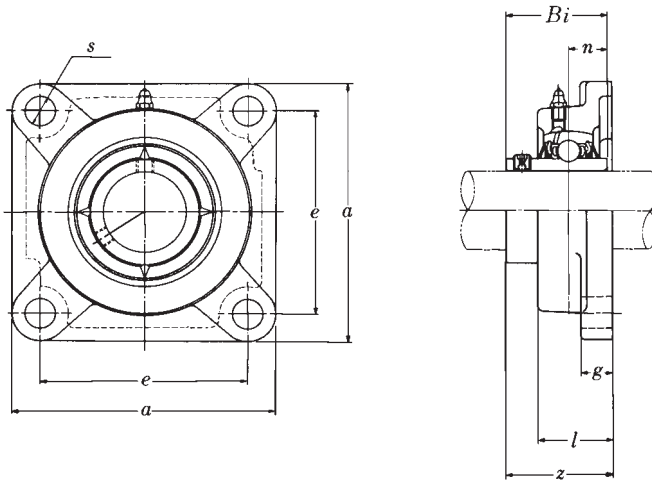
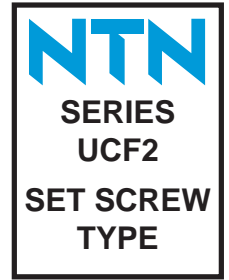
FLANGED UNITS - PRESSED CAST HOUSING (FOUR BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions								Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		a	e	g	l	s	z	Bi	n				Dynamic C	Static Co
12 ½	UCF201D1 UCF201-008T	86 3 ¾	64 2 17/32	11 7/16	25.5 1	12 15/32	33.3 1 5/16	31 1.220	12.7 .500	M10 ¾	F204D1 F204T	UC201D1 UC201-008D1	2,890	1,500
15 9/16 5/8	UCF202D1 UCF202-009T UCF202-010T	86 3 ¾	64 2 17/32	11 7/16	25.5 1	12 15/32	33.3 1 5/16	31 1.220	12.7 .500	M10 ¾	F204D1 F204T F204T	UC202D1 UC202-009D1 UC202-010D1	2,890	1,500
17 1 1/16	UCF203D1 UCF203-011T	86 3 ¾	64 2 17/32	11 7/16	25.5 1	12 15/32	33.3 1 5/16	31 1.220	12.7 .500	M10 ¾	F204D1 F204T	UC203D1 UC203-011D1	2,890	1,500
20 ¾	UCF204D1 UCF204-012T	86 3 ¾	64 2 17/32	11 7/16	25.5 1	12 15/32	33.3 1 5/16	31 1.220	12.7 .500	M10 ¾	F204D1 F204T	UC204D1 UC204-012D1	2,890	1,500
25 1 3/16 7/8 1 1/8 1 1/16 1	UCF205D1 UCF205-013T UCF205-014T UCF205-015T UCF205-100T	95 3 ¾	70 2 ¾	13 ½	27 1 1/16	12 15/32	35.7 1 13/32	34 1.339	14.3 .563	M10 ¾	F205D1 F205T F205T F205T F205T	UC205D1 UC205-013D1 UC205-014D1 UC205-015D1 UC205-100D1	3,150	1,770
30 1 1/16 1 1/8 1 3/16 1 1/4	UCF206D1 UCF206-101T UCF206-102T UCF206-103T *UCF206-104T	108 4 ¼	83 3 9/32	13 ½	31 1 7/32	12 15/32	40.2 1 37/64	38.1 1.500	15.9 .626	M10 ¾	F206D1 F206T F206T F206T F206T	UC206D1 UC206-101D1 UC206-102D1 UC206-103D1 UC206-104D1	4,400	2,540
35 1 ¼ 1 5/16 1 3/8 1 7/16	UCF207D1 UCF207-104T UCF207-105T UCF207-106T *UCF207-107T	117 4 19/32	92 3 5/8	15 19/32	34 1 11/32	14 35/64	44.4 1 ¾	42.9 1.689	17.5 .689	M12 ½	F207D1 F207T F207T F207T F207T	UC207D1 UC207-104D1 UC207-105D1 UC207-106D1 UC207-107D1	5,750	3,440
40 1 ½ 1 9/16	UCF208D1 UCF208-108T UCF208-109T	130 5 ½	102 4 1/32	15 19/32	36 1 13/32	16 5/8	51.2 2 1/4	49.2 1.937	19 .748	M14 ½	F208D1 F208T F208T	UC208D1 UC208-108D1 UC208-109D1	6,550	4,000
45 1 5/8 1 11/16 1 ¾	UCF209D1 UCF209-110T UCF209-111T UCF209-112T	137 5 13/32	105 4 1/8	16 5/8	38 1 ½	16 5/8	52.2 2 1/16	49.2 1.937	19 .748	M14 ½	F209D1 F209T F209T F209T	UC209D1 UC209-110D1 UC209-111D1 UC209-112D1	7,350	4,590
50 1 13/16 1 7/8 1 15/16 2	UCF210D1 UCF210-113T UCF210-114T UCF210-115T UCF210-200T	143 5 5/8	111 4 3/8	16 5/8	40 1 9/16	16 5/8	54.6 2 9/32	51.6 2.031	19 .748	M14 ½	F210D1 F210T F210T F210T F210T	UC210D1 UC210-113D1 UC210-114D1 UC210-115D1 UC210-200D1	7,900	5,220
55 2 2 1/16 2 1/8 2 3/16	UCF211D1 UCF211-200T UCF211-201T UCF211-202T UCF211-203T	162 6 3/8	130 5 1/8	18 23/32	43 1 11/16	19 ¾	58.4 2 19/64	55.6 2.189	22.2 .874	M16 5/8	F211D1 F211T F211T F211T F211T	UC211D1 UC211-200D1 UC211-201D1 UC211-202D1 UC211-203D1	9,750	6,570

* Unit with notched set screw as standard.

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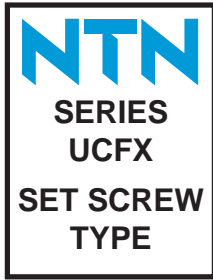
Units: Millimeters
INCHES



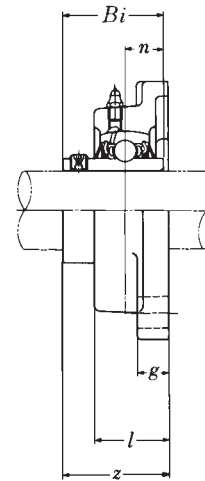
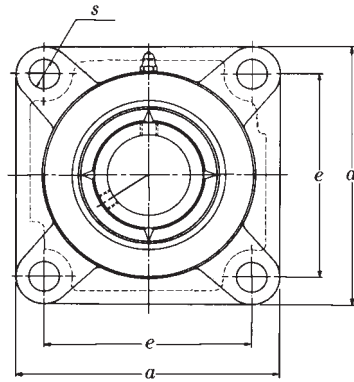
FLANGED UNITS - PRESSED CAST HOUSING (FOUR BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions								Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		a	e	g	l	s	z	Bi	n				Dynamic C	Static C ₀
60 2 1/4 2 3/8 2 7/16	UCF212D1 UCF212-204T UCF212-206T *UCF212-207T	175 6 7/8	143 5 5/8	18 23/32	48 1 7/8	19 3/4	68.7 2 45/64	65.1 2.563	25.4 1.000	M16 5/8	F212D1 F212T F212T F212T	UC212D1 UC212-204D1 UC212-206D1 UC212-207D1	11,800	8,100
65 2 1/2	UCF213D1 UCF213-208T	187 7 3/8	149 5 7/8	22 7/8	50 1 31/32	19 3/4	69.7 2 3/4	65.1 2.563	25.4 1.000	M16 5/8	F213D1 F213T	UC213D1 UC213-208D1	12,900	9,000
70 2 11/16 2 3/4	UCF214D1 UCF214-211T UCF214-212T	193 7 19/32	152 5 31/32	22 7/8	54 2 1/8	19 3/4	75.4 2 31/32	74.6 2.937	30.2 1.189	M16 5/8	F214D1 F214T F214T	UC214D1 UC214-211D1 UC214-212D1	14,000	9,900
75 2 15/16 3	UCF215D1 UCF215-215T UCF215-300T	200 7 7/8	159 6 1/4	22 7/8	56 2 7/32	19 3/4	78.5 3 3/32	77.8 3.063	33.3 1.311	M16 5/8	F215D1 F215T F215T	UC215D1 UC215-215D1 UC215-300D1	14,900	11,100
80 3 1/8	UCF216D1 UCF216-302T	208 8 3/16	165 6 1/2	22 7/8	58 2 9/32	23 29/32	83.3 3 9/32	82.6 3.252	33.3 1.311	M20 3/4	F216D1 F216T	UC216D1 UC216-302D1	16,300	11,900
85 3 1/4	UCF217D1 UCF217-304T	220 8 21/32	175 6 7/8	24 15/16	63 2 15/32	23 29/32	87.6 3 29/64	85.7 3.374	34.1 1.343	M20 3/4	F217D1 F217T	UC217D1 UC217-304D1	18,700	14,400
90 3 1/2	UCF218D1 UCF218-308T	235 9 1/4	187 7 3/8	24 15/16	68 2 11/16	23 29/32	96.3 3 51/64	96 3.780	39.7 1.563	M20 3/4	F218D1 F218T	UC218D1 UC218-308D1	21,600	16,100

* Unit with notched set screw as standard.



Units: **Millimeters**
INCHES

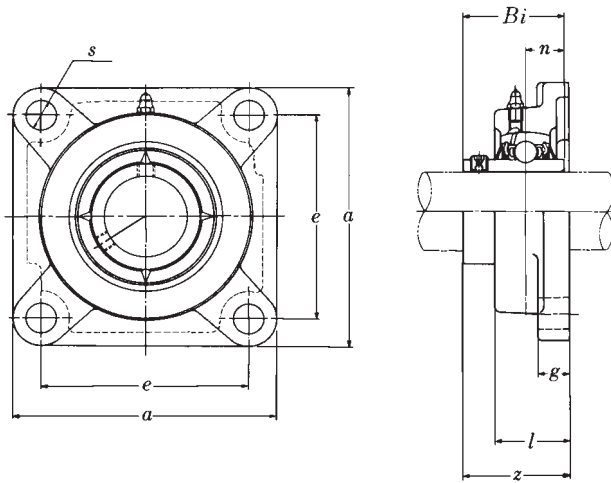
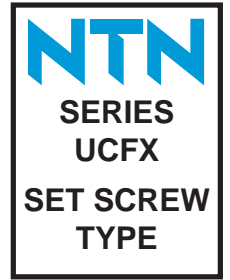


FLANGED UNITS - CAST HOUSING (FOUR BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions								Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		a	e	g	l	s	z	Bi	n				Dynamic C	Static Co
25 1 3/16 7/8 15/16 1	UCFX05D1 UCFX05-013T UCFX05-014T UCFX05-015T UCFX05-100T	108 4 1/4	83 3 1/4	13 1/2	30 1 3/16	12 15/32	40.2 1 19/32	38.1 1.500	15.9 .626	M10 3/8	FX05D1 FX05T FX05T FX05T FX05T	UCX05D1 UCX05-013D1 UCX05-014D1 UCX05-015D1 UCX05-100D1	4,390	2,540
30 1 1/16 1 1/8 1 3/16 1 1/4	UCFX06D1 UCFX06-101T UCFX06-102T UCFX06-103T UCFX06-104T	117 4 5/8	92 3 5/8	14 9/16	34 1 11/32	16 5/8	44.4 1 3/4	42.9 1.689	17.5 .689	M14 1/2	FX06D1 FX06T FX06T FX06T FX06T	UCX06D1 UCX06-101D1 UCX06-102D1 UCX06-103D1 UCX06-104D1	5,780	3,440
35 1 9/16 1 3/8 1 7/16	UCFX07D1 UCFX07-105T UCFX07-106T UCFX07-107T	130 5 1/8	102 4	14 9/16	38 1 1/2	16 5/8	51.2 2 1/2	49.2 1.937	19 .748	M14 1/2	FX07D1 FX07T FX07T FX07T	UCX07D1 UCX07-105D1 UCX07-106D1 UCX07-107D1	6,550	4,000
40 1 1/2 1 9/16	UCFX08D1 UCFX08-108T UCFX08-109T	137 5 3/8	105 4 1/8	14 9/16	40 1 9/16	19 3/4	52.2 2 1/16	49.2 1.937	19 .748	M16 5/8	FX08D1 FX08T FX08T	UCX08D1 UCX08-108D1 UCX08-109D1	7,310	4,590
45 1 5/8 1 11/16 1 3/4 1 13/16	UCFX09D1 UCFX09-110T UCFX09-111T UCFX09-112T UCFX09-113T	143 5 5/8	111 4 3/8	14 9/16	40 1 9/16	19 3/4	55.6 2 3/16	51.6 2.031	19 .748	M16 5/8	FX09D1 FX09T FX09T FX09T FX09T	UCX09D1 UCX09-110D1 UCX09-111D1 UCX09-112D1 UCX09-113D1	7,870	5,220
50 1 7/8 1 15/16 2	UCFX10D1 UCFX10-114T UCFX10-115T UCFX10-200T	162 6 3/8	130 5 1/8	20 25/32	44 1 23/32	19 3/4	59.4 2 11/32	55.6 2.189	22.2 .874	M16 5/8	FX10D1 FX10T FX10T FX10T	UCX10D1 UCX10-114D1 UCX10-115D1 UCX10-200D1	9,780	6,570
55 2 1/16 2 1/8 2 3/16 2 1/4 2 5/16	UCFX11D1 UCFX11-201T UCFX11-202T UCFX11-203T UCFX11-204T UCFX11-205T	175 6 7/8	143 5 5/8	20 25/32	49 1 15/16	19 3/4	68.7 2 23/32	65.1 2.563	25.4 1.000	M16 5/8	FX11D1 FX11T FX11T FX11T FX11T FX11T	UCX11D1 UCX11-201D1 UCX11-202D1 UCX11-203D1 UCX11-204D1 UCX11-205D1	11,810	8,100
60 2 3/8 2 7/16	UCFX12D1 UCFX12-206T UCFX12-207T	187 7 3/8	149 5 7/8	21 13/16	59 2 5/16	19 3/4	73.7 2 29/32	65.1 2.563	25.4 1.000	M16 5/8	FX12D1 FX12T FX12T	UCX12D1 UCX12-206D1 UCX12-207D1	12,930	9,000
65 2 1/2 2 9/16	UCFX13D1 UCFX13-208T UCFX13-209T	187 7 3/8	149 5 7/8	21 13/16	59 2 5/16	19 3/4	78.4 3 3/32	74.6 2.937	30.2 1.189	M16 5/8	FX13D1 FX13T FX13T	UCX13D1 UCX13-208D1 UCX13-209D1	13,940	9,900
70 2 5/8 2 11/16 2 3/4	UCFX14D1 UCFX14-210T UCFX14-211T UCFX14-212T	197 7 3/4	152 5 31/32	24 19/16	60 2 3/8	23 29/32	81.5 3 7/32	77.8 3.063	33.3 1.311	M20 3/4	FX14D1 FX14T FX14T FX14T	UCX14D1 UCX14-210D1 UCX14-211D1 UCX14-212D1	14,840	11,130

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Units: Millimeters
INCHES

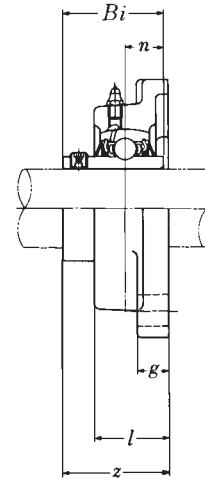
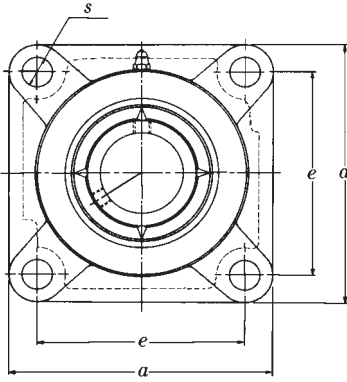


FLANGED UNITS - CAST HOUSING (FOUR BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions								Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		a	e	g	l	s	z	Bi	n				Dynamic C	Static C ₀
75 2 13/16 2 7/8 2 15/16 3	UCFX15D1 UCFX15-213T UCFX15-214T UCFX15-215T UCFX15-300T	197 7 3/4	152 5 31/32	24 1 5/16	68 2 11/16	23 29/32	89.3 3 17/32	82.6 3.252	33.3 1.311	M20 3/4	FX15D1 FX15T FX15T FX15T	UCX15D1 UCX15-213D1 UCX15-214D1 UCX15-215D1 UCX15-300D1	16,310	11,920
80 3 1/8 3 3/16 3 1/4	UCFX16D1 UCFX16-302T UCFX16-303T UCFX16-304T	214 8 7/16	171 6 3/4	24 1 5/16	70 2 3/4	23 29/32	91.6 3 19/32	85.7 3.374	34.1 1.343	M20 3/4	FX16D1 FX16T FX16T FX16T	UCX16D1 UCX16-302D1 UCX16-303D1 UCX16-304D1	18,780	14,390
85 3 5/16 3 7/16	UCFX17D1 UCFX17-305T UCFX17-307T	214 8 7/16	171 6 3/4	24 1 5/16	70 2 3/4	23 29/32	96.3 3 29/32	96 3.780	39.7 1.563	M20 M20	FX17D1 FX17T FX17T	UCX17D1 UCX17-305D1 UCX17-307D1	21,590	16,080
90 3 1/2	UCFX18D1 UCFX18-308T	214 8 7/16	171 6 3/4	24 1 5/16	76 3	23 29/32	106.1 4 3/16	104 4.094	42.9 1.689	M20 3/4	FX18D1 FX18T	UCX18D1 UCX18-308D1	24,520	18,440
100 3 7/8 3 15/16 4	UCFX20D1 UCFX20-314T UCFX20-315T UCFX20-400T	268 10 5/16	211 8 5/16	31 1 7/32	97 3 13/16	31 1 7/32	127.3 5	117.5 4.626	49.2 1.937	M27 1	FX20D1 FX20T FX20T FX20T	UCX20D1 UCX20-314D1 UCX20-315D1 UCX20-400D1	29,910	23,620



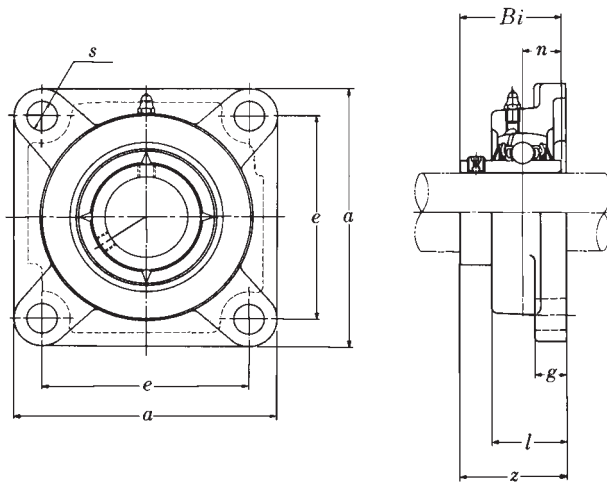
Units: **Millimeters**
INCHES



FLANGED UNITS - PRESSED CAST HOUSING (FOUR BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions								Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		a	e	g	l	s	z	Bi	n				Dynamic C	Static Co
25 7/8 1 1/16 1	UCF305D1 UCF305-014T UCF305-015T UCF305-100T	110 4 11/32	80 3 5/32	13 1/2	29 1 5/32	16 5/8	39 1 17/32	38 1.496	15 .591	M14 1/2	F305D1 F305T F305T F305T	UC305D1 UC305-014D1 UC305-015D1 UC305-100D1	4,750	2,460
30 1 1/8 1 3/16	UCF306D1 UCF306-102T UCF306-103T	125 4 29/32	95 3 3/4	15 1 1/32	32 1 1/4	16 5/8	44 1 47/64	43 1.693	17 .669	M14 1/2	F306D1 F306T F306T	UC306D1 UC306-102D1 UC306-103D1	6,000	3,400
35 1 1/4 1 5/16 1 3/8 1 7/16	UCF307D1 UCF307-104T UCF307-105T UCF307-106T UCF307-107T	135 5 5/16	100 3 15/16	16 5/8	36 1 13/32	19 3/4	49 1 59/64	48 1.890	19 .748	M16 5/8	F307D1 F307T F307T F307T F307T	UC307D1 UC307-104D1 UC307-105D1 UC307-106D1 UC307-107D1	7,500	4,300
40 1 1/2	UCF308D1 UCF308-108T	150 5 29/32	112 4 13/32	17 2 1/32	40 1 9/16	19 3/4	56 2 13/64	52 2.047	19 .748	M16 5/8	F308D1 F308T	UC308D1 UC308-108D1	9,150	5,400
45 1 5/8 1 11/16 1 3/4	UCF309D1 UCF309-110T UCF309-111T UCF309-112T	160 6 5/16	125 4 29/32	18 2 3/32	44 1 23/32	19 3/4	60 2 23/64	57 2.244	22 .866	M16 5/8	F309D1 F309T F309T F309T	UC309D1 UC309-110D1 UC309-111D1 UC309-112D1	11,900	7,200
50 1 7/8 1 15/16	UCF310D1 UCF310-114T UCF310-115T	175 6 7/8	132 5 3/16	19 3/4	48 1 7/8	23 29/32	67 2 41/64	61 2.402	22 .866	M20 3/4	F310D1 F310T F310T	UC310D1 UC310-114D1 UC310-115D1	13,900	8,600
55 2 2 1/8 2 3/16	UCF311D1 UCF311-200T UCF311-202T UCF311-203T	185 7 3/32	140 5 1/2	20 29/32	52 2 1/16	23 29/32	71 2 51/64	66 2.598	25 .984	M20 3/4	F311D1 F311T F311T F311T	UC311D1 UC311-200D1 UC311-202D1 UC311-203D1	16,100	10,100
60 2 1/4 2 3/8 2 7/16	UCF312D1 UCF312-204T UCF312-206T UCF312-207T	195 7 11/16	150 5 29/32	22 7/8	56 2 7/32	23 29/32	78 3 5/64	71 2.795	26 1.024	M20 3/4	F312D1 F312T F312T F312T	UC312D1 UC312-204D1 UC312-206D1 UC312-207D1	18,400	11,700
65 2 1/2	UCF313D1 UCF313-208T	208 8 3/16	166 6 17/32	22 7/8	58 2 9/32	23 29/32	78 3 5/64	75 2.953	30 1.181	M20 3/4	F313D1 F313T	UC313D1 UC313-208D1	20,800	13,400
70 2 11/16 2 3/4	UCF314D1 UCF314-211T UCF314-212T	226 8 29/32	178 7	25 3 1/32	61 2 13/32	25 63/64	81 3 3/16	78 3.071	33 1.299	M22 7/8	F314D1 F314T F314T	UC314D1 UC314-211D1 UC314-212D1	23,400	15,300
75 2 15/16 3	UCF315D1 UCF315-215T UCF315-300T	236 9 9/32	184 7 1/4	25 3 1/32	66 2 19/32	25 63/64	89 3 1/2	82 3.228	32 1.260	M22 7/8	F315D1 F315T F315T	UC315D1 UC315-215D1 UC315-300D1	25,500	17,400
80 3 1/8 3 3/16	UCF316D1 UCF316-302T UCF316-303T	250 9 27/32	196 7 23/32	27 1 1/16	68 2 11/16	31 1 7/32	90 3 39/64	86 3.386	34 1.339	M27 1	F316D1 F316T F316T	UC316D1 UC316-302D1 UC316-303D1	27,600	19,500

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Units: **Millimeters**
INCHES

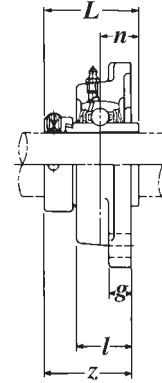
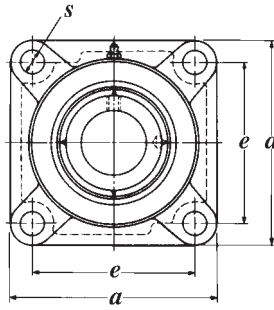


FLANGED UNITS - PRESSED CAST HOUSING (FOUR BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions								Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		<i>a</i>	<i>e</i>	<i>g</i>	<i>l</i>	<i>s</i>	<i>z</i>	<i>Bi</i>	<i>n</i>				Dynamic <i>C</i>	Static <i>C₀</i>
85 3 1/4	UCF317D1 UCF317-304T	260 10 1/4	204 8 1/2	27 1 1/16	74 2 29/32	31 1 7/32	100 3 15/16	96 3.780	40 1.575	M27 1	F317D1 F317T	UC317D1 UC317-304D1	29,800	21,800
90 3 7/16 3 1/2	UCF318D1 UCF318-307T UCF318-308T	280 11 1/2	216 8 1/2	30 1 3/16	76 3	35 1 3/8	100 3 15/16	96 3.780	40 1.575	M30 1 1/8	F318D1 F318T F318T	UC318D1 UC318-307D1 UC318-308D1	32,000	24,100
95 3 3/4	UCF319D1 UCF319-312T	290 11 13/32	228 8 31/32	30 1 3/16	94 3 11/16	35 1 3/8	121 4 9/64	103 4.055	41 1.614	M30 1 1/8	F319D1 F319T	UC319D1 UC319-312D1	34,500	26,600
100 3 15/16 4	UCF320D1 UCF320-315T UCF320-400T	310 12 7/32	242 9 17/32	32 1 1/4	94 3 11/16	38 1 1/2	125 4 59/64	108 4.252	42 1.654	M33 1 1/4	F320D1 F320T F320T	UC320D1 UC320-315D1 UC320-400D1	39,000	31,500
105	UCF321D1	310	242	32	94	38	127	112	44	M33	F321D1	UC321D1	41,500	34,500
110	UCF322D1	340	266	35	96	41	131	117	46	M36	F322D1	UC322D1	46,000	40,500
120	UCF324D1	370	290	40	110	41	140	126	51	M36	F324D1	UC324D1	46,500	41,500
130	UCF326D1	410	320	45	115	41	146	135	54	M36	F326D1	UC326D1	51,500	48,000
140	UCF328D1	450	350	55	125	41	161	145	59	M36	F328D1	UC328D1	57,000	55,500

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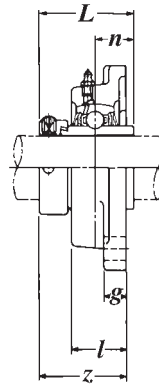
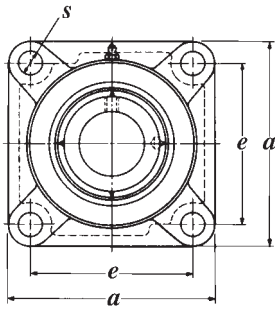
Units: **Millimeters**
INCHES



FLANGED UNITS - CAST HOUSING (FOUR BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions									Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		a	e	g	l	s	z	L	Di	n				Dynamic C	Static Co
20 3/4	UELF204D1 UELF204-012T	86 3 3/8	64 2 1 7/32	11 7/16	25.5 1	12 1 5/32	41.6 1 41/64	43.7 1.720	33 1.299	17.1 .673	M10 5/16	F204D1 F204T	UEL204D1 UEL204-012D1	2,890	1,500
25 1 13/16 7/8 1 15/16 1	UELF205D1 UELF205-013T UELF205-014T UELF205-015T UELF205-100T	95 3 3/4	70 2 3/4	13 1/2	27 1 1/16	12 1 5/32	42.9 1 1 1/16	44.4 1.748	38 1.496	17.5 .689	M10 3/8	F205D1 F205T F205T F205T F205T	UEL205D1 UEL205-013D1 UEL205-014D1 UEL205-015D1 UEL205-100D1	3,150	1,770
30 1 1/16 1 1/8 1 1/4 1 3/8 1 1/2	UELF206D1 UELF206-101T UELF206-102T UELF206-103T UELF206-104T	108 4 1/4	83 3 3/32	13 1/2	31 1 7/32	12 1 5/32	48.1 1 57/64	48.4 1.906	44.5 1.752	18.3 .720	M10 3/8	F206D1 F206T F206T F206T F206T	UEL206D1 UEL206-101D1 UEL206-102D1 UEL206-103D1 UEL206-104D1	4,400	2,540
35 1 1/4 1 5/16 1 3/8 1 7/16	UELF207D1 UELF207-104T UELF207-105T UELF207-106T UELF207-107T	117 4 1 1/32	92 5 3/8	15 1 1/32	34 1 1 1/32	14 3 5/64	51.3 2 1/64	51.1 2.012	55.5 2.185	18.8 .740	M12 7/16	F207D1 F207T F207T F207T F207T	UEL207D1 UEL207-104D1 UEL207-105D1 UEL207-106D1 UEL207-107D1	5,750	3,440
40 1 1/2 1 5/16	UELF208D1 UELF208-108T UELF208-109T	130 5 1/8	102 4 1/32	15 1 1/32	36 1 1 1/32	16 5/8	55.9 2 1 3/64	56.3 2.217	60 2.362	21.4 .843	M14 1/2	F207D1 F208T F208T	UEL208D1 UEL208-108D1 UEL208-109D1	6,550	4,000
45 1 5/8 1 1 1/16 1 3/4	UELF209D1 UELF209-110T UELF209-111T UELF209-112T	137 5 1 1/32	105 4 1/8	16 5/8	38 1 1/2	16 5/8	56.9 2 1 5/64	56.3 2.217	63.5 2.500	21.4 .843	M14 1/2	F209D1 F209T F209T F209T	UEL209D1 UEL209-110D1 UEL209-111D1 UEL209-112D1	7,350	4,590
50 1 1 1/16 1 7/8 1 5/16 2	UELF210D1 UELF210-113T UELF210-114T UELF210-115T UELF210-200T	143 5 5/8	111 4 3/8	16 5/8	40 1 1/16	16 5/8	60.1 2 2 3/64	62.7 2.469	69.5 2.736	24.6 .969	M14 1/2	F210D1 F210T F210T F210T F210T	UEL210D1 UEL210-113D1 UEL210-114D1 UEL210-115D1 UEL210-200D1	7,900	5,220
55 2 2 1/16 2 1/8 2 3/16	UELF211D1 UELF211-200T UELF211-201T UELF211-202T UELF211-203T	162 6 3/8	130 5 1/8	18 2 3/32	43 1 1 1/16	19 3/4	68.6 2 4 5/64	71.4 2.811	76 2.992	27.8 1.094	M16 5/16	F211D1 F211T F211T F211T F211T	UEL211D1 UEL211-200D1 UEL211-201D1 UEL211-202D1 UEL211-203D1	9,750	6,570
60 2 1/4 2 3/8 2 7/16	UELF212D1 UELF212-204T UELF212-206T UELF212-207T	175 6 7/8	143 5 5/8	18 2 3/32	48 1 7/8	19 3/4	75.8 2 6 3/64	77.8 3.063	84 3.307	31 1.220	M16 5/16	F212D1 F212T F212T F212T	UEL212D1 UEL212-204D1 UEL212-206D1 UEL212-207D1	11,800	8,100
65 2 1/2	UELF213D1 UELF213-208T	187 7 3/8	149 5 7/8	22 7/8	50 1 3 1/32	19 3/4	81.55 3 1 3/64	85.7 3.374	97 3.819	34.15 1.344	M16 5/16	F213D1 F213T	UEL213D1 UEL213-208D1	12,900	9,000
70 2 1 1/16 2 3/4	UELF214D1 UELF214-211T UELF214-212T	193 7 1 1/32	152 5 3 1/32	22 7/8	54 2 1/8	19 3/4	82.55 3 1/4	85.7 3.374	97 3.819	34.15 1.344	M16 5/16	F214D1 F214T F214T	UEL214D1 UEL214-211D1 UEL214-212D1	14,000	9,900
75 2 1 5/16 3	UELF215D1 UELF215-215T UELF215-300T	200 7 7/8	159 6 1/4	22 7/8	56 2 7/32	19 3/4	88.7 3 3 1/64	92 3.622	102 4.016	37.3 1.469	M16 5/16	F215D1 F215T F215T	UEL215D1 UEL215-215D1 UEL215-300D1	14,900	11,130

Units: **Millimeters**
INCHES

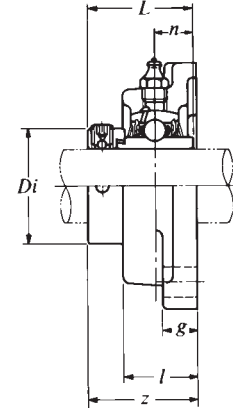
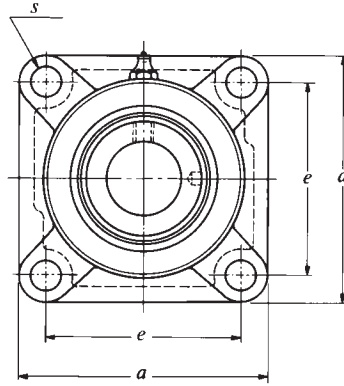


FLANGED UNITS - CAST HOUSING (FOUR BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions									Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		a	e	g	l	s	z	L	Di	n				Dynamic C	Static Co
25 7/8 1 1/16 1	UELF305D1 UELF305-014T UELF305-015T UELF305-100T	110 4 1 1/2	80 3 5/8	13 1/2	29 1 5/8	16 5/8	46.1 1 13/16	46.8 1.843	42.8 1.685	16.7 .657	M14 1/2	F305D1 F305T F305T F305T	UEL305D1 UEL305-014D1 UEL305-015D1 UEL305-100D1	4,750	2,460
30 1 1/8 1 3/16	UELF306D1 UELF306-102T UELF306-103T	125 4 2 3/8	95 3 3/4	15 1 1/2	32 1 1/4	16 5/8	50.5 1 63/64	50 1.969	50 1.969	17.5 .689	M14 1/2	F306D1 F306T F306T	UEL306D1 UEL306-102D1 UEL306-103D1	6,000	3,400
35 1 1/4 1 5/16 1 3/8 1 7/16	UELF307D1 UELF307-104T UELF307-105T UELF307-106T UELF307-107T	135 5 5/16	100 3 15/16	16 5/8	36 1 1 3/8	19 3/4	53.3 2 3/8	51.6 2.031	55 2.165	18.3 .720	M16 5/8	F307D1 F307T F307T F307T F307T	UEL307D1 UEL307-104D1 UEL307-105D1 UEL307-106D1 UEL307-107D1	7,500	4,300
40 1 1/2	UELF308D1 UELF308-108T	150 5 2 3/8	112 4 1 1/2	17 2 1/2	40 1 9/16	19 3/4	60.3 3 3/8	57.1 2.248	63.5 2.500	19.8 .780	M16 5/8	F308D1 F308T	UEL308D1 UEL308-108D1	9,150	5,400
45 1 5/8 1 11/16 1 3/4	UELF309D1 UELF309-110T UELF309-111T UELF309-112T	160 6 5/16	125 4 2 3/8	18 2 3/8	44 1 2 3/8	19 3/4	63.9 2 3 3/64	58.7 2.311	70 2.756	19.8 .780	M16 5/8	F309D1 F309T F309T F309T	UEL309D1 UEL309-110D1 UEL309-111D1 UEL309-112D1	11,900	7,200
50 1 7/8 1 15/16	UELF310D1 UELF310-114T UELF310-115T	175 6 7/8	132 5 3/16	19 3/4	48 1 7/8	23 2 3/8	70 2 3/4	66.6 2.622	76.2 3.000	24.6 .969	M20 3/4	F310D1 F310T F310T	UEL310D1 UEL310-114D1 UEL310-115D1	13,900	8,600
55 2 2 1/8 2 3/16	UELF311D1 UELF311-200T UELF311-202T UELF311-203T	185 7 5/8	140 5 1/2	20 2 1/2	52 2 1/16	23 2 3/8	75.2 2 61/64	73 2.874	83 3.268	27.8 1.094	M20 3/4	F311D1 F311T F311T F311T	UEL311D1 UEL311-200D1 UEL311-202D1 UEL311-203D1	16,100	10,100
60 2 1/4 2 3/8 2 7/16	UELF312D1 UELF312-204T UELF312-206T UELF312-207T	195 7 11/16	150 5 2 3/8	22 7/8	56 2 7/8	23 2 3/8	81.45 3 1 3/64	79.4 3.126	89 3.504	30.95 1.219	M20 3/4	F312D1 F312T F312T F312T	UEL312D1 UEL312-204D1 UEL312-206D1 UEL312-207D1	18,400	11,700
65 2 1/2	UELF313D1 UELF313-208T	208 8 3/16	166 6 1 7/8	22 7/8	58 2 3/8	23 2 3/8	86.15 3 2 5/64	85.7 3.374	97 3.819	32.55 1.281	M20 3/4	F313D1 F313T	UEL313D1 UEL313-208D1	20,800	13,400
70 2 11/16 2 3/4	UELF314D1 UELF314-211T UELF314-212T	226 8 2 3/8	178 7	25 3 1/2	61 2 1 3/8	25 2 3/8	93.95 3 4 5/64	92.1 3.626	102 4.016	34.15 1.344	M22 7/8	F314D1 F314T F314T	UEL314D1 UEL314-211D1 UEL314-212D1	23,400	15,300
75 2 15/16 3	UELF315D1 UELF315-215T UELF315-300T	236 9 5/8	184 7 1/4	25 3 1/2	66 2 1 1/2	25 2 3/8	101.7 4	100 3.937	113 4.449	37.3 1.469	M22 7/8	F315D1 F315T F315T	UEL315D1 UEL315-215D1 UEL315-300D1	25,500	17,400
80 3 1/8 3 3/16	UELF316D1 UELF316-302T UELF316-303T	250 9 2 3/8	196 7 2 3/8	27 1 1/16	68 2 1 1/16	31 1 7/8	103.9 4 3/8	106.4 4.189	119 4.685	40.5 1.594	M27 1	F316D1 F316T F316T	UEL316D1 UEL316-302D1 UEL316-303D1	27,600	19,500
85 3 1/4	UELF317D1 UELF317-304T	260 10 1/4	204 8 1/2	27 1 1/16	74 2 2 3/8	31 1 7/8	111.45 4 2 5/64	109.5 4.311	127 5.000	42.05 1.656	M27 1	F317D1 F317T	UEL317D1 UEL317-304D1	29,800	21,800
90 3 7/16 3 1/2	UELF318D1 UELF318-307T UELF318-308T	280 11 1/2	216 8 1/2	30 1 3/16	76 3	35 1 3/8	116.25 4 3 7/64	115.9 4.563	133 5.236	43.65 1.719	M30 1 1/8	F318D1 F318T F318T	UEL318D1 UEL318-307D1 UEL318-308D1	32,000	24,100
95 3 3/4	UELF319D1 UELF319-312T	290 11 1 3/8	228 8 3 3/8	30 1 3/16	94 3 1 1/16	35 1 3/8	142.4 5 3 3/64	122.3 4.815	140 5.512	38.9 1.531	M30 1 1/8	F319D1 F319T	UEL319D1 UEL319-312D1	34,500	26,600
100 3 15/16 4	UELF320D1 UELF320-315T UELF320-400T	310 12 7/8	242 9 1 7/8	32 1 1/4	94 3 1 1/16	38 1 1/2	137.6 5 2 7/64	128.6 5.063	146 5.748	50 1.969	M33 1 1/4	F320D1 F320T F320T	UEL320D1 UEL320-315D1 UEL320-400D1	39,000	31,500
105	UELF321D1	310	242	32	94	38	150.3	139.7	157	48.4	M33	F321D1	UEL321D1	41,500	34,500
110	UELF322D1	340	266	35	96	41	152.1	141.3	168	49.2	M36	F322D1	UEL322D1	46,000	40,500

NTN
SERIES
UELFU2
ECCENTRIC
LOCKING
COLLAR
TYPE

Units: **Millimeters**
INCHES



FLANGED UNITS - CAST HOUSING (FOUR BOLT)

Shaft Dia.	Complete Flanged Unit Number	Nominal Dimensions									Bolt Size	Housing Number	Bearing Number	Basic Load Ratings (lbs)	
		a	e	g	l	s	z	L	Di	n				Dynamic C	Static Co
20 3/4	UELFU204D1 UELFU204-012T	86 3 3/8	63.5 2 1/2	15 1 1/2	29.5 1 1/8	11.5 25/64	45.6 1 5/64	43.7 1.720	33.3 1.31	17.1 .673	M10 5/16	FU204D1 FU204T	UEL204D1 UEL204-012D1	2,890	1,500
25 1 3/16 7/8 1 1/16 1	UELFU205D1 UELFU205-013T UELFU205-014T UELFU205-015T UELFU205-100T	96 3 25/32	70 2 3/4	15 1 1/2	30 1 3/4	11.5 29/64	45.9 1 13/16	44.4 1.748	38.1 1.50	17.5 .689	M10 3/8	FU205D1 FU205T FU205T FU205T FU205T	UEL205D1 UEL205-013D1 UEL205-014D1 UEL205-015D1 UEL205-100D1	3,150	1,770
30 1 1/16 1 1/8 1 3/16 1 1/4	UELFU206D1 UELFU206-101T UELFU206-102T UELFU206-103T UELFU206-104T	109 4 1/2	82.5 3 1/4	16 5/8	33 1 1/16	11.5 29/64	50.1 1 31/32	48.4 1.906	44.5 1.75	18.3 .720	M10 3/8	FU206D1 FU206T FU206T FU206T FU206T	UEL206D1 UEL206-101D1 UEL206-102D1 UEL206-103D1 UEL206-104D1	4,400	2,540
35 1 1/4 1 5/16 1 3/8 1 7/16	UELFU207D1 UELFU207-104T UELFU207-105T UELFU207-106T UELFU207-107T	118 4 21/32	92 3 5/8	17 1 1/2	36 1 13/32	14 33/64	53.3 2 1/8	51.1 2.012	55.6 2.19	18.8 .740	M12 7/16	FU207D1 FU207T FU207T FU207T FU207T	UEL207D1 UEL207-104D1 UEL207-105D1 UEL207-106D1 UEL207-107D1	5,750	3,440
40 1 1/2 1 1/16	UELFU208D1 UELFU208-108T UELFU208-109T	131 5 1/2	101.5 4	17 1 1/2	39 1 17/32	14 33/64	58.9 2 5/16	56.3 2.217	60.2 2.37	21.4 .843	M12 7/16	FU207D1 FU208T FU208T	UEL208D1 UEL208-108D1 UEL208-109D1	6,550	4,000
45 1 5/8 1 11/16 1 3/4	UELFU209D1 UELFU209-110T UELFU209-111T UELFU209-112T	137 5 13/32	105 4 1/8	18 1 1/2	40 1 9/16	16 37/64	58.9 2 5/16	56.3 2.217	63.5 2.50	21.4 .843	M14 1/2	FU209D1 FU209T FU209T FU209T	UEL209D1 UEL209-110D1 UEL209-111D1 UEL209-112D1	7,350	4,590
50 1 13/16 1 7/8 1 9/16 2	UELFU210D1 UELFU210-113T UELFU210-114T UELFU210-115T UELFU210-200T	144 5 21/32	111 4 3/8	20 1 1/2	46 1 13/16	18 37/64	66.1 2 39/64	62.7 2.469	69.9 2.75	24.6 .969	M16 1/2	FU210D1 FU210T FU210T FU210T FU210T	UEL210D1 UEL210-113D1 UEL210-114D1 UEL210-115D1 UEL210-200D1	7,900	5,220
55 2 2 1/16 2 1/8 2 3/16	UELFU211D1 UELFU211-200T UELFU211-201T UELFU211-202T UELFU211-203T	163 6 13/32	130 5 1/8	21 1 3/16	49 1 15/16	18 1 1/2	74.6 2 15/16	71.4 2.811	76.2 3.00	27.8 1.094	M16 5/8	FU211D1 FU211T FU211T FU211T FU211T	UEL211D1 UEL211-200D1 UEL211-201D1 UEL211-202D1 UEL211-203D1	9,750	6,570
60 2 1/4 2 3/8 2 7/16	UELFU212D1 UELFU212-204T UELFU212-206T UELFU212-207T	175 6 7/8	143 5 5/8	21 1 3/16	53 2 1/8	18 1 1/2	80.8 3 1/16	77.8 3.063	84.1 3.31	31 1.220	M16 5/8	FU212D1 FU212T FU212T FU212T	UEL212D1 UEL212-204D1 UEL212-206D1 UEL212-207D1	11,800	8,100
65 2 1/2	UELFU213D1 UELFU213-208T	187 7 3/8	149 5 7/8	22 7/8	59 2 3/16	20.5 13/16	89.55 3 17/32	85.7 3.374	97.0 3.82	34.15 1.344	M18 5/8	FU213D1 FU213T	UEL213D1 UEL213-208D1	12,900	9,000
70 2 11/16 2 3/4	UELFU214D1 UELFU214-211T UELFU214-212T	193 7 19/32	152 5 31/32	22 7/8	62 2 1/16	20.5 13/16	89.55 3 17/32	85.7 3.374	97.0 3.82	34.15 1.344	M18 5/8	FU214D1 FU214T FU214T	UEL214D1 UEL214-211D1 UEL214-212D1	14,000	9,900
75 2 15/16 3	UELFU215D1 UELFU215-215T UELFU215-300T	200 7 7/8	159 6 1/4	22 7/8	65 2 5/16	20.5 13/16	95.7 3 49/64	92 3.622	102 4.02	37.3 1.469	M18 5/8	FU215D1 FU215T FU215T	UEL215D1 UEL215-215D1 UEL215-300D1	14,900	11,130



Bearing Series → **ASPF2 SERIES**

ASPF2014 ←

Complete Flanged Unit Number

Weight (lbs)

FLANGED UNITS

ASPF2 SERIES	JELPFL207-106 1.5	JELPF205-100 ..... .9	UCFL210-114T 4.9
ASPFL201 ..... .2	JELPFL207-107 1.5	JELPF206 1.3	UCFL210-115T 4.9
ASPFL201-008 ..... .2	ASPF2 SERIES	JELPF206-101 1.3	UCFL210-200T 4.9
ASPFL202 ..... .2	ASPF201 ..... .4	JELPF206-102 1.3	UCFL211D1 6.8
ASPFL202-009 ..... .2	ASPF201-008 ..... .4	JELPF206-103 1.3	UCFL211-200T 6.8
ASPFL202-010 ..... .2	ASPF202 ..... .4	JELPF206-104 1.3	UCFL211-201T 6.8
ASPFL203 ..... .2	ASPF202-009 ..... .4	JELPF207 1.8	UCFL211-202T 6.8
ASPFL203-011 ..... .2	ASPF202-010 ..... .4	JELPF207-104 1.8	UCFL211-203T 6.8
ASPFL204 ..... .4	ASPF203 ..... .4	JELPF207-105 1.8	UCFL212-201T 8.8
ASPFL204-012 ..... .4	ASPF203-011 ..... .4	JELPF207-106 1.8	UCFL212-204T 8.8
ASPFL205 ..... .7	ASPF204 ..... .7	JELPF207-107 1.8	UCFL212-206T 8.8
ASPFL205-013 ..... .7	ASPF204-012 ..... .7	JELPF208 2.9	UCFL212-207T 8.8
ASPFL205-014 ..... .7	ASPF205 ..... .7	JELPF208-108 2.9	UCFL213D1 11
ASPFL205-015 ..... .7	ASPF205-013 ..... .7	JELPF208-109 2.9	UCFL213-208T 11
ASPFL205-100 ..... .7	ASPF205-014 ..... .7	JELFL2 SERIES	UCFL214D1 12
ASPFL206 ..... .9	ASPF205-015 ..... .7	JELFL201 ..... .9	UCFL214-211T 12
ASPFL206-101 ..... .9	ASPF205-100 ..... .7	JELFL201-008 ..... .9	UCFL214-212T 12
ASPFL206-102 ..... .9	ASPF206 1.1	JELFL202 ..... .9	UCFL215D1 14
ASPFL206-103 ..... .9	ASPF206-101 1.1	JELFL202-009 ..... .9	UCFL215-215T 14
ASPFL206-104 ..... .9	ASPF206-102 1.1	JELFL202-010 ..... .9	UCFL215-300T 14
ASPFL207 1.1	ASPF206-103 1.1	JELFL203 1.1	UCFL215D1 14
ASPFL207-104 1.1	ASPF206-104 1.1	JELFL203-011 1.1	UCFL216-302T 18
ASPFL207-105 1.1	ASPF207 1.5	JELFL204 1.1	UCFL217D1 21
ASPFL207-106 1.1	ASPF207-104 1.5	JELFL204-012 1.1	UCFL217-304T 21
ASPFL207-107 1.1	ASPF207-105 1.5	JELFL205 1.4	UCFL218D1 24
AELPFL2 SERIES	ASPF207-106 1.5	JELFL205-013 1.4	UCFL218-308T 24
AELPFL201 ..... .4	ASPF207-107 1.5	JELFL205-014 1.4	UCFLX SERIES
AELPFL201-008 ..... .4	ASPF208 2.4	JELFL205-015 1.4	UCFLX05D1 2.2
AELPFL202 ..... .4	ASPF208-108 2.4	JELFL205-100 1.4	UCFLX05-013T 2.2
AELPFL202-009 ..... .4	ASPF208-109 2.4	JELFL206 2.0	UCFLX05-014T 2.2
AELPFL202-010 ..... .4	AELPF2 SERIES	JELFL206-101 2.0	UCFLX05-015T 2.2
AELPFL203 2	AELPF201 ..... .4	JELFL206-102 2.0	UCFLX05-100T 2.2
AELPFL203-011 ..... .2	AELPF201-008 ..... .4	JELFL206-103 2.0	UCFLX06D1 3.3
AELPFL204 ..... .7	AELPF202 ..... .4	JELFL206-104 2.0	UCFLX06-101T 3.3
AELPFL204-012 ..... .7	AELPF202-009 ..... .4	JELFL207 2.7	UCFLX06-102T 3.3
AELPFL205 ..... .7	AELPF202-010 ..... .4	JELFL207-104 2.7	UCFLX06-103T 3.3
AELPFL205-013 ..... .7	AELPF203 ..... .4	JELFL207-105 2.7	UCFLX06-104T 3.3
AELPFL205-014 ..... .7	AELPF203-011 ..... .4	JELFL207-106 2.7	UCFLX07D1 4.4
AELPFL205-015 ..... .7	AELPF204 ..... .7	JELFL207-107 2.7	UCFLX07-105T 4.4
AELPFL205-100 ..... .7	AELPF204-012 ..... .7	UCFL2 SERIES	UCFLX07-106T 4.4
AELPFL206 1.1	AELPF205 ..... .9	UCFL201D1 1.3	UCFLX07-107T 4.4
AELPFL206-101 1.1	AELPF205-013 ..... .9	UCFL201-008T 1.3	UCFLX08D1 4.9
AELPFL206-102 1.1	AELPF205-014 ..... .9	UCFL202D1 1.3	UCFLX08-108T 4.9
AELPFL206-103 1.1	AELPF205-015 ..... .9	UCFL202-009T 1.3	UCFLX08-109T 4.9
AELPFL206-104 1.1	AELPF205-100 ..... .9	UCFL202-010T 1.3	UCFLX09D1 5.3
AELPFL207 1.5	AELPF206 1.3	UCFL203D1 1.1	UCFLX09-110T 5.3
AELPFL207-104 1.5	AELPF206-101 1.3	UCFL203-011T 1.1	UCFLX09-111T 5.3
AELPFL207-105 1.5	AELPF206-102 1.3	UCFL204D1 1.1	UCFLX09-112T 5.3
AELPFL207-106 1.5	AELPF206-103 1.3	UCFL204-012T 1.1	UCFLX09-113T 5.3
AELPFL207-107 1.5	AELPF206-104 1.3	UCFL205D1 1.3	UCFLX10D1 7.5
JELPFL2 SERIES	AELPF207 1.8	UCFL205-013T 1.3	UCFLX10-114T 7.5
JELPFL201 ..... .4	AELPF207-104 1.8	UCFL205-014T 1.3	UCFLX10-115T 7.5
JELPFL201-008 ..... .4	AELPF207-105 1.8	UCFL205-015T 1.3	UCFLX10-200T 7.5
JELPFL202 ..... .4	AELPF207-106 1.8	UCFL205-100T 1.3	UCFL3 SERIES
JELPFL202-009 ..... .4	AELPF207-107 1.8	UCFL206D1 2.0	UCFL305D1 3.3
JELPFL202-010 ..... .4	AELPF208 2.9	UCFL206-101T 2.0	UCFL305-014T 3.3
JELPFL203 ..... .2	AELPF208-108 2.9	UCFL206-102T 2.0	UCFL305-015T 3.3
JELPFL203-011 ..... .2	AELPF208-109 2.9	UCFL206-103T 2.0	UCFL305-100T 3.3
JELPFL204 ..... .7	JELPF2 SERIES	UCFL206-104T 2.0	UCFL306D1 4.2
JELPFL204-012 ..... .7	JELPF201 ..... .4	UCFL207D1 2.6	UCFL306-102T 4.2
JELPFL205 ..... .7	JELPF201-008 ..... .4	UCFL207-104T 2.6	UCFL306-103T 4.2
JELPFL205-013 ..... .7	JELPF202 ..... .4	UCFL207-105T 2.6	UCFL307D1 5.1
JELPFL205-014 ..... .7	JELPF202-009 ..... .4	UCFL207-106T 2.6	UCFL307-104T 5.1
JELPFL205-015 ..... .7	JELPF202-010 ..... .4	UCFL207-107T 2.6	UCFL307-105T 5.1
JELPFL205-100 ..... .7	JELPF203 ..... .4	UCFL208D1 3.5	UCFL307-106T 5.1
JELPFL206 1.1	JELPF203-011 ..... .4	UCFL208-108T 3.5	UCFL307-107T 5.1
JELPFL206-101 1.1	JELPF204 ..... .7	UCFL208-109T 3.5	UCFL308D1 7.3
JELPFL206-102 1.1	JELPF204-012 ..... .7	UCFL209D1 4.2	UCFL308-108T 7.3
JELPFL206-103 1.1	JELPF205 ..... .9	UCFL209-110T 4.2	UCFL309D1 9.3
JELPFL206-104 1.1	JELPF205-013 ..... .9	UCFL209-111T 4.2	UCFL309-110T 9.3
JELPFL207 1.5	JELPF205-014 ..... .9	UCFL209-112T 4.2	UCFL309-111T 9.3
JELPFL207-104 1.5	JELPF205-015 ..... .9	UCFL210D1 4.9	UCFL309-112T 9.3
JELPFL207-105 1.5		UCFL210-113T 4.9	UCFL310D1 12



Bearing Series → **ASPF2 SERIES**

ASPF2014

Complete Flanged Unit Number

Weight (lbs)

FLANGED UNITS

UCFL310-114T.....	12
UCFL310-115T.....	12
UCFL311D1.....	14
UCFL311-200T.....	14
UCFL311-202T.....	14
UCFL311-203T.....	12
UCFL312D1.....	17
UCFL312-204T.....	17
UCFL312-206T.....	17
UCFL312-207T.....	17
UCFL313D1.....	22
UCFL313-208T.....	22
UCFL314D1.....	26
UCFL314-211T.....	26
UCFL314-212T.....	26
UCFL315D1.....	26
UCFL315-215T.....	26
UCFL315-300T.....	26
UCFL316D1.....	35
UCFL316-302T.....	35
UCFL316-303T.....	35
UCFL317D1.....	40
UCFL317-304T.....	40
UCFL318D1.....	46
UCFL318-307T.....	46
UCFL318-308T.....	46
UCFL319D1.....	57
UCFL319-312T.....	57
UCFL320D1.....	68
UCFL320-315T.....	68
UCFL320-400T.....	68
UCFL321D1.....	71
UCFL322D1.....	86
UCFL324D1.....	115
UCFL326D1.....	141
UCFL328D1.....	196
UELFL2 SERIES	
UELFL204D1.....	1.3
UELFL204-012T.....	1.3
UELFL205D1.....	1.5
UELFL205-013T.....	1.5
UELFL205-014T.....	1.5
UELFL205-015T.....	1.5
UELFL205-100T.....	1.5
UELFL206D1.....	2.2
UELFL206-101T.....	2.2
UELFL206-102T.....	2.2
UELFL206-103T.....	2.2
UELFL206-104T.....	2.2
UELFL207D1.....	2.9
UELFL207-104T.....	2.9
UELFL207-105T.....	2.9
UELFL207-106T.....	2.9
UELFL207-107T.....	2.9
UELFL208D1.....	3.7
UELFL208-108T.....	3.7
UELFL208-109T.....	3.7
UELFL209D1.....	4.4
UELFL209-110T.....	4.4
UELFL209-111T.....	4.4
UELFL209-112T.....	4.4
UELFL210D1.....	5.1
UELFL210-113T.....	5.1
UELFL210-114T.....	5.1
UELFL210-115T.....	5.1
UELFL210-200T.....	5.1
UELFL211D1.....	7.3
UELFL211-200T.....	7.3
UELFL211-201T.....	7.3
UELFL211-202T.....	7.3
UELFL211-203T.....	7.3
UELFL212D1.....	9.5
UELFL212-204T.....	9.5

UELFL212-206T.....	9.5
UELFL212-207T.....	9.5
UELFL213D1.....	12
UELFL213-208T.....	12
UELFL214D1.....	13
UELFL214-211T.....	13
UELFL214-212T.....	13
UELFL215D1.....	14
UELFL215-215T.....	14
UELFL215-300T.....	14
UELFL3 SERIES	
UELFL305D1.....	2.4
UELFL305-014T.....	2.4
UELFL305-015T.....	2.4
UELFL305-100T.....	2.4
UELFL306D1.....	3.5
UELFL306-102T.....	3.5
UELFL306-103T.....	3.5
UELFL307D1.....	4.4
UELFL307-104T.....	4.4
UELFL307-105T.....	4.4
UELFL307-106T.....	4.4
UELFL307-107T.....	4.4
UELFL308D1.....	5.7
UELFL308-108T.....	5.7
UELFL309D1.....	7.9
UELFL309-110T.....	7.9
UELFL309-111T.....	7.9
UELFL309-112T.....	7.9
UELFL310D1.....	10
UELFL310-114T.....	10
UELFL310-115T.....	10
UELFL311D1.....	12
UELFL311-200T.....	12
UELFL311-202T.....	12
UELFL311-203T.....	12
UELFL312D1.....	14
UELFL312-204T.....	14
UELFL312-206T.....	14
UELFL312-207T.....	14
UELFL313D1.....	18
UELFL313-208T.....	18
UELFL314D1.....	21
UELFL314-211T.....	21
UELFL314-212T.....	21
UELFL315D1.....	24
UELFL315-215T.....	24
UELFL315-300T.....	24
UELFL316D1.....	31
UELFL316-302T.....	31
UELFL316-303T.....	31
UELFL317D1.....	35
UELFL317-304T.....	35
UELFL318D1.....	42
UELFL318-307T.....	42
UELFL318-308T.....	42
UELFL319D1.....	53
UELFL319-312T.....	53
UELFL320D1.....	64
UELFL320-315T.....	64
UELFL320-400T.....	64
UELFL321D1.....	66
UELFL322D1.....	79
UELFLU2 SERIES	
UELFLU204D1.....	1.3
UELFLU204-012T.....	1.3
UELFLU205D1.....	1.8
UELFLU205-013T.....	1.8
UELFLU205-014T.....	1.8
UELFLU205-015T.....	1.8
UELFLU205-100T.....	1.8
UELFLU206D1.....	2.4
UELFLU206-101T.....	2.4

UELFLU206-102T.....	2.4
UELFLU206-103T.....	2.4
UELFLU206-104T.....	2.4
UELFLU207D1.....	3.1
UELFLU207-104T.....	3.1
UELFLU207-105T.....	3.1
UELFLU207-106T.....	3.1
UELFLU207-107T.....	3.1
UELFLU208D1.....	4.0
UELFLU208-108T.....	4.0
UELFLU208-109T.....	4.0
UELFLU209D1.....	4.6
UELFLU209-110T.....	4.6
UELFLU209-111T.....	4.6
UELFLU209-112T.....	4.6
UELFLU210D1.....	5.5
UELFLU210-113T.....	5.5
UELFLU210-114T.....	5.5
UELFLU210-115T.....	5.5
UELFLU210-200T.....	5.5
UELFLU211D1.....	7.7
UELFLU211-200T.....	7.7
UELFLU211-201T.....	7.7
UELFLU211-202T.....	7.7
UELFLU211-203T.....	7.7
UELFLU212D1.....	9.9
UELFLU212-204T.....	9.9
UELFLU212-206T.....	9.9
UELFLU212-207T.....	9.9
UELFLU213D1.....	12
UELFLU213-208T.....	12
UELFLU214D1.....	13
UELFLU214-211T.....	13
UELFLU214-212T.....	13
UELFLU215D1.....	15
UELFLU215-215T.....	15
UELFLU215-300T.....	15
ASFD2 SERIES	
ASFD201.....	7
ASFD201-008.....	7
ASFD202.....	7
ASFD202-009.....	7
ASFD202-010.....	7
ASFD203.....	7
ASFD203-011.....	7
ASFD204.....	9
ASFD204-012.....	9
ASFD205.....	1.1
ASFD205-013.....	1.1
ASFD205-014.....	1.1
ASFD205-015.....	1.1
ASFD205-100.....	1.1
ASFD206D1.....	1.8
ASFD206-101.....	1.8
ASFD206-102.....	1.8
ASFD206-103.....	1.8
ASFD206-104.....	1.8
ASFD207.....	2.0
ASFD207-104.....	2.0
ASFD207-105.....	2.0
ASFD207-106.....	2.0
ASFD207-107.....	2.0
AELFD2 SERIES	
AELFD201.....	7
AELFD201-008.....	7
AELFD202.....	7
AELFD202-009.....	7
AELFD202-010.....	7
AELFD203.....	7
AELFD203-011.....	7
AELFD204.....	1.1
AELFD204-012.....	1.1
AELFD205.....	1.1

AELFD205-013.....	1.1
AELFD205-014.....	1.1
AELFD205-015.....	1.1
AELFD205-100.....	1.1
AELFD206.....	1.8
AELFD206-101.....	1.8
AELFD206-102.....	1.8
AELFD206-103.....	1.8
AELFD206-104.....	1.8
AELFD207.....	2.2
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AELFD207-105.....	2.2
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AELFD207-107.....	2.2
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JELFD201-008.....	7
JELFD202.....	7
JELFD202-009.....	7
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JELFD203-011.....	7
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JELFD205-015.....	1.1
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JELFD206-102.....	1.8
JELFD206-103.....	1.8
JELFD206-104.....	1.8
JELFD207.....	2.2
JELFD207-104.....	2.2
JELFD207-105.....	2.2
JELFD207-106.....	2.2
JELFD207-107.....	2.2
UCF2 SERIES	
UCF201D1.....	1.5
UCF201-008T.....	1.5
UCF202D1.....	1.5
UCF202-009T.....	1.5
UCF202-010T.....	1.5
UCF203D1.....	1.3
UCF203-011T.....	1.3
UCF204D1.....	1.3
UCF204-012T.....	1.3
UCF205D1.....	1.8
UCF205-013T.....	1.8
UCF205-014T.....	1.8
UCF205-015T.....	1.8
UCF205-100T.....	1.8
UCF206D1.....	2.2
UCF206-101T.....	2.2
UCF206-102T.....	2.2
UCF206-103T.....	2.2
UCF206-104T.....	2.2
UCF207D1.....	3.1
UCF207-104T.....	3.1
UCF207-105T.....	3.1
UCF207-106T.....	3.1
UCF207-107T.....	3.1
UCF208D1.....	4.0
UCF208-108T.....	4.0
UCF208-109T.....	4.0
UCF209D1.....	4.9
UCF209-110T.....	4.9
UCF209-111T.....	4.9
UCF209-112T.....	4.9
UCF210D1.....	5.3
UCF210-113T.....	5.3

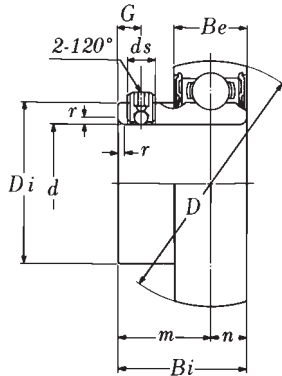


FLANGED UNITS

UCF210-114T.....	5.3	UCFX15-300T.....	18	UELF205D1.....	1.8	UELF312-207T.....	15
UCF210-115T.....	5.3	UCFX16D1.....	22	UELF205-013T.....	1.8	UELF313D1.....	18
UCF210-200T.....	5.3	UCFX16-302T.....	22	UELF205-014T.....	1.8	UELF313-208T.....	18
UCF211D1.....	7.9	UCFX16-303T.....	22	UELF205-015T.....	1.8	UELF314D1.....	22
UCF211-200T.....	7.9	UCFX16-304T.....	22	UELF205-100T.....	1.8	UELF314-211T.....	22
UCF211-201T.....	7.9	UCFX17D1.....	24	UELF206D1.....	2.6	UELF314-212T.....	22
UCF211-202T.....	7.9	UCFX17-305T.....	24	UELF206-101T.....	2.6	UELF315D1.....	26
UCF211-203T.....	7.9	UCFX17-307T.....	24	UELF206-102T.....	2.6	UELF315-215T.....	26
UCF212D1.....	9.7	UCFX18D1.....	24	UELF206-103T.....	2.6	UELF315-300T.....	26
UCF212-204T.....	9.7	UCFX18-308T.....	24	UELF206-104T.....	2.6	UELF316D1.....	35
UCF212-206T.....	9.7	UCFX20D1.....	37	UELF207D1.....	3.5	UELF316-302T.....	35
UCF212-207T.....	9.7	UCFX20-314T.....	37	UELF207-104T.....	3.5	UELF316-303T.....	35
UCF213D1.....	12	UCFX20-315T.....	37	UELF207-105T.....	3.5	UELF317D1.....	37
UCF213-208T.....	12	UCFX20-400T.....	37	UELF207-106T.....	3.5	UELF317-304T.....	37
UCF214D1.....	13			UELF207-107T.....	3.5	UELF318D1.....	46
UCF214-211T.....	13	UCF3 SERIES		UELF208D1.....	4.2	UELF318-307T.....	46
UCF214-212T.....	13	UCF305D1.....	2.4	UELF208-108T.....	4.2	UELF318-308T.....	46
UCF215D1.....	15	UCF305-014T.....	2.4	UELF208-109T.....	4.2	UELF319D1.....	51
UCF215-215T.....	15	UCF305-015T.....	2.4	UELF209D1.....	5.1	UELF319-312T.....	51
UCF215-300T.....	15	UCF305-100T.....	2.4	UELF209-110T.....	5.1	UELF320D1.....	62
UCF216D1.....	18	UCF306D1.....	3.5	UELF209-111T.....	5.1	UELF320-315T.....	62
UCF216-302T.....	18	UCF306-102T.....	3.5	UELF209-112T.....	5.1	UELF320-400T.....	62
UCF217D1.....	21	UCF306-103T.....	3.5	UELF210D1.....	5.7	UELF321D1.....	64
UCF217-304T.....	21	UCF307D1.....	4.4	UELF210-113T.....	5.7	UELF322D1.....	88
UCF218D1.....	24	UCF307-104T.....	4.4	UELF210-114T.....	5.7		
UCF218-308T.....	24	UCF307-105T.....	4.4	UELF210-115T.....	5.7	UELFU2 SERIES	
		UCF307-106T.....	4.4	UELF210-200T.....	5.7	UELFU204D1.....	1.8
UCFX SERIES		UCF307-107T.....	4.4	UELF211D1.....	8.4	UELFU204-012T.....	1.8
UCFX05D1.....	2.2	UCF308D1.....	6.0	UELF211-200T.....	8.4	UELFU205D1.....	2.0
UCFX05-013T.....	2.2	UCF308-108T.....	6.0	UELF211-201T.....	8.4	UELFU205-013T.....	2.0
UCFX05-014T.....	2.2	UCF309D1.....	7.5	UELF211-202T.....	8.4	UELFU205-014T.....	2.0
UCFX05-015T.....	2.2	UCF309-110T.....	7.5	UELF211-203T.....	8.4	UELFU205-015T.....	2.0
UCFX05-100T.....	2.2	UCF309-111T.....	7.5	UELF212D1.....	11	UELFU205-100T.....	2.0
UCFX06D1.....	3.7	UCF309-112T.....	7.5	UELF212-204T.....	11	UELFU206D1.....	2.9
UCFX06-101T.....	3.7	UCF310D1.....	9.9	UELF212-206T.....	11	UELFU206-101T.....	2.9
UCFX06-102T.....	3.7	UCF310-114T.....	9.9	UELF212-207T.....	11	UELFU206-102T.....	2.9
UCFX06-103T.....	3.7	UCF310-115T.....	9.9	UELF213D1.....	13	UELFU206-104T.....	2.9
UCFX06-104T.....	3.7	UCF311D1.....	12	UELF213-208T.....	13	UELFU207D1.....	4.0
UCFX07D1.....	4.6	UCF311-200T.....	12	UELF214D1.....	14	UELFU207-104T.....	4.0
UCFX07-105T.....	4.6	UCF311-202T.....	12	UELF214-211T.....	14	UELFU207-105T.....	4.0
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UCFX07-107T.....	4.6	UCF312D1.....	14	UELF215-215T.....	16	UELFU207-107T.....	4.0
UCFX08D1.....	5.3	UCF312-204T.....	14	UELF215-300T.....	16	UELFU208D1.....	4.6
UCFX08-108T.....	5.3	UCF312-206T.....	14			UELFU208-108T.....	4.6
UCFX08-109T.....	5.3	UCF312-207T.....	14	UELF3 SERIES		UELFU208-109T.....	4.6
UCFX09D1.....	5.5	UCF313D1.....	17	UELF305D1.....	2.6	UELFU209D1.....	5.5
UCFX09-110T.....	5.5	UCF313-208T.....	17	UELF305-014T.....	2.6	UELFU209-110T.....	5.5
UCFX09-111T.....	5.5	UCF314D1.....	21	UELF305-015T.....	2.6	UELFU209-111T.....	5.5
UCFX09-112T.....	5.5	UCF314-211T.....	21	UELF305-100T.....	2.6	UELFU209-112T.....	5.5
UCFX09-113T.....	5.5	UCF314-212T.....	21	UELF306D1.....	3.7	UELFU210D1.....	6.4
UCFX10D1.....	8.6	UCF315D1.....	26	UELF306-102T.....	3.7	UELFU210-113T.....	6.4
UCFX10-114T.....	8.6	UCF315-215T.....	26	UELF306-103T.....	3.7	UELFU210-114T.....	6.4
UCFX10-115T.....	8.6	UCF316D1.....	31	UELF307D1.....	4.4	UELFU210-115T.....	6.4
UCFX10-200T.....	8.6	UCF316-302T.....	31	UELF307-104T.....	4.4	UELFU210-200T.....	6.4
UCFX11D1.....	11	UCF316-303T.....	31	UELF307-105T.....	4.4	UELFU211D1.....	9.3
UCFX11-201T.....	11	UCF317D1.....	35	UELF307-106T.....	4.4	UELFU211-200T.....	9.3
UCFX11-202T.....	11	UCF317-304T.....	35	UELF307-107T.....	4.4	UELFU211-201T.....	9.3
UCFX11-203T.....	11	UCF318D1.....	42	UELF308D1.....	6.2	UELFU211-202T.....	9.3
UCFX11-204T.....	11	UCF318-307T.....	42	UELF308-108T.....	6.2	UELFU211-203T.....	9.3
UCFX11-205T.....	11	UCF318-308T.....	42	UELF309D1.....	7.9	UELFU212D1.....	11
UCFX12D1.....	11	UCF319D1.....	49	UELF309-110T.....	7.9	UELFU212-204T.....	11
UCFX12-206T.....	11	UCF319-312T.....	49	UELF309-111T.....	7.9	UELFU212-206T.....	11
UCFX12-207T.....	11	UCF320D1.....	57	UELF309-112T.....	7.9	UELFU212-207T.....	11
UCFX13D1.....	12	UCF320-315T.....	57	UELF310D1.....	10	UELFU213D1.....	13
UCFX13-208T.....	12	UCF320-400T.....	57	UELF310-114T.....	10	UELFU213-208T.....	13
UCFX13-209T.....	12	UCF321D1.....	60	UELF310-115T.....	10	UELFU214D1.....	13
UCFX14D1.....	16	UCF322D1.....	84	UELF311D1.....	13	UELFU214-211T.....	13
UCFX14-210T.....	16	UCF324D1.....	110	UELF311-200T.....	13	UELFU214-212T.....	13
UCFX14-211T.....	16	UCF326D1.....	146	UELF311-202T.....	13	UELFU215D1.....	17
UCFX14-212T.....	16	UCF328D1.....	198	UELF311-203T.....	13	UELFU215-215T.....	17
UCFX15D1.....	18			UELF312D1.....	15	UELFU215-300T.....	17
UCFX15-213T.....	18	UELF2 SERIES		UELF312-204T.....	15		
UCFX15-214T.....	18	UELF204D1.....	1.5	UELF312-206T.....	15		
UCFX15-215T.....	18	UELF204-012T.....	1.5				



Units: Millimeters
INCHES

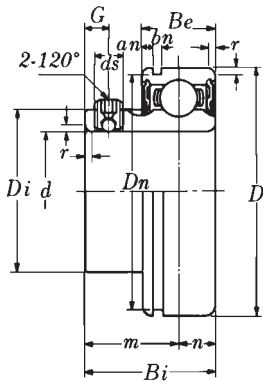


AS2

BALL BEARING INSERTS – AS2 SERIES

Bore <i>d</i>	Bearing Number	Nominal Dimensions								Socket Set Screw <i>ds</i>	Basic Load Ratings (lbs)	
		<i>D</i>	<i>Bi</i>	<i>Be</i>	<i>r</i>	<i>n</i>	<i>m</i>	<i>G</i>	<i>Di</i>		Dynamic <i>C</i>	Static <i>C₀</i>
12 ½	AS201 AS201-008	40 1.5748	22 .866	12 .472	1 .039	6 .236	16 .630	4.2 .165	24.4 .961	M5 X 0.8 10-32UNF	2,160	1,030
15 ⅞ ⅝	AS202 AS202-009 AS202-010	40 1.5748	22 .866	12 .472	1 .039	6 .236	16 .630	4.2 .165	24.4 .961	M5 X 0.8 10-32UNF	2,160	1,030
17 ⅞	AS203 * AS203-011	40 1.5748	22 .866	12 .472	1 .039	6 .236	16 .630	4.2 .165	24.4 .961	M5 X 0.8 10-32UNF	2,160	1,030
20 ¾	AS204 AS204-012	47 1.8504	25 .984	14 .551	1.5 .059	7 .276	18 .708	4.2 .165	29.6 1.165	M5 X 0.8 10-32UNF	2,890	1,500
25 1⅜ ⅞ 1⅝ 1	AS205 AS205-013 AS205-014 AS205-015 AS205-100	52 2.0472	27 1.063	15 .591	1.5 .059	7.5 .295	19.5 .768	5 .197	33.9 1.335	M5 X 0.8 10-32UNF	3,150	1,760
30 1⅞ 1⅝ 1⅜ 1¼	AS206 AS206-101 AS206-102 AS206-103 * AS206-104	62 2.4409	29 1.142	16 .630	1.5 .059	8 .315	21 .827	5 .197	40.8 1.606	M6 X 0.75 ¼-28UNF	4,400	2,540
35 1¼ 1⅝ 1⅜ 1⅞	AS207 AS207-104 AS207-105 AS207-106 * AS207-107	72 2.8349	34 1.339	17 .669	2 .079	8.5 .335	25.5 1.004	6 .236	46.8 1.843	M6 X 0.75 ¼-28UNF	5,750	3,440
40 1½ 1⅞	AS208 AS208-108 AS208-109	80 3.1496	38 1.496	18 .709	2 .079	9 .354	29 1.142	8 .315	53 2.087	M8 X 1 ⅝-24UNF	6,540	4,000

* Indicates units with notched set screw as standard



ASS2

BALL BEARING INSERTS – ASS2 SERIES

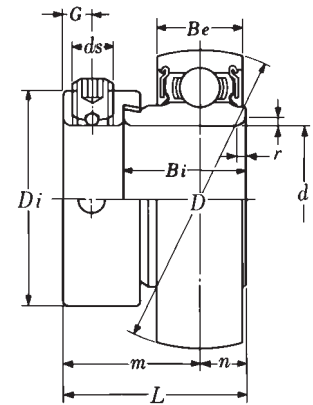
Bore <i>d</i>	Bearing Number	Nominal Dimensions											Socket Set Screw <i>ds</i>	Basic Load Ratings (lbs)	
		<i>D</i>	<i>Bi</i>	<i>Be</i>	<i>r</i>	<i>n</i>	<i>m</i>	<i>G</i>	<i>Di</i>	<i>Dn</i>	<i>an</i>	<i>bn</i>		Dynamic <i>C</i>	Static <i>C₀</i>
12 ½	ASS201N ASS201-008N	40 1.5748	22 .866	12 .472	1 .039	6 .236	16 .630	4.2 .165	24.4 .961	38.1 1.500	1.98 .078	1.5 .059	M5 X 0.8 10-32UNF	2,160	1,030
15 ⅞ ⅝	ASS202N ASS202-009N ASS202-010N	40 1.5748	22 .866	12 .472	1 .039	6 .236	16 .630	4.2 .165	24.4 .961	38.1 1.500	1.98 .078	1.5 .059	M5 X 0.8 10-32UNF	2,160	1,030
17 ⅞	ASS203N * ASS203-011N	40 1.5748	22 .866	12 .472	1 .039	6 .236	16 .630	4.2 .165	24.4 .961	38.1 1.500	1.98 .078	1.5 .059	M5 X 0.8 10-32UNF	2,160	1,030
20 ¾	ASS204N ASS204-012N	47 1.8504	25 .984	14 .551	1.5 .059	7 .276	18 .708	4.2 .165	29.6 1.165	44.6 1.756	2.38 .094	1.5 .059	M5 X 0.8 10-32UNF	2,890	1,500
25 1⅜ ⅞ 1⅝ 1	ASS205N ASS205-013N ASS205-014N ASS205-015N ASS205-100N	52 2.0472	27 1.063	15 .591	1.5 .059	7.5 .295	19.5 .768	5 .197	33.9 1.335	49.73 1.958	2.38 .094	1.5 .059	M5 X 0.8 10-32UNF	3,150	1,760
30 1⅞ 1⅝ 1⅜ 1¼	ASS206N ASS206-101N ASS206-102N ASS206-103N * ASS206-104N	62 2.4409	29 1.142	16 .630	1.5 .059	8 .315	21 .827	5 .197	40.8 1.606	59.61 2.347	3.18 .125	2.05 .081	M6 X 0.75 ¼-28UNF	4,400	2,540
35 1¼ 1⅝ 1⅜ 1⅞	ASS207N ASS207-104N ASS207-105N ASS207-106N * ASS207-107N	72 2.8349	34 1.339	17 .669	2 .079	8.5 .335	25.5 1.004	6 .236	46.8 1.843	68.81 2.709	3.18 .125	2.05 .081	M6 X 0.75 ¼-28UNF	5,750	3,440
40 1½ 1⅞	ASS208N ASS208-108N ASS208-109N	80 3.1496	38 1.496	18 .709	2 .079	9 .354	29 1.142	8 .315	53 2.087	76.81 3.024	3.18 .125	2.05 .081	M8 X 1 ⅝-24UNF	6,540	4,000

* Indicates units with notched set screw as standard

BALL BEARING INSERTS – AEL2 SERIES

Bore <i>d</i>	Bearing Number	Nominal Dimensions									Socket Set Screw <i>ds</i>	Basic Load Ratings (lbs)	
		<i>D</i>	<i>L</i>	<i>Bi</i>	<i>Be</i>	<i>r</i>	<i>n</i>	<i>m</i>	<i>G</i>	<i>Di</i>		Dynamic <i>C</i>	Static <i>C₀</i>
12 ½	AEL201 AEL201-008	40 1.5748	28.6 1.126	19 .748	12 .472	1 .039	6.5 .256	22.1 .870	4.8 .189	29 1.14	M6 X 0.75 ¼-28UNF	2,160	1,030
15 ⅝ ⅞	AEL202 AEL202-009 AEL202-010	40 1.5748	28.6 1.126	19 .748	12 .472	1 .039	6.5 .256	22.1 .870	4.8 .189	29 1.14	M6 X 0.75 ¼-28UNF	2,160	1,030
17 ⅞	AEL203 AEL203-011	40 1.5748	28.6 1.126	19 .748	12 .472	1 .039	6.5 .256	22.1 .870	4.8 .189	29 1.14	M6 X 0.75 ¼-28UNF	2,160	1,030
20 ¾	AEL204 AEL204-012	47 1.8504	31 1.219	21.5 .846	14 .551	1.5 .059	7.5 .295	23.5 .924	4.8 .189	33 1.31	M6 X 0.75 ¼-28UNF	2,890	1,500
25 1⅜ 1⅝ 1	AEL205 AEL205-013 AEL205-014 AEL205-015 AEL205-100	52 2.0472	31 1.219	21.5 .846	15 .591	1.5 .059	7.5 .295	23.5 .924	4.8 .189	38 1.50	M6 X 0.75 ¼-28UNF	3,150	1,760
30 1⅞ 1⅝ 1⅜ 1¼	AEL206 AEL206-101 AEL206-102 AEL206-103 AEL206-104	62 2.4409	35.7 1.406	23.8 .937	16 .630	1.5 .059	9 .354	26.7 1.052	6 .236	44.5 1.75	M8 X 1 ⅝-24UNF	4,400	2,540
35 1⅞ 1⅝ 1⅜ 1⅞	AEL207 AEL207-104 AEL207-105 AEL207-106 AEL207-107	72 2.8346	38.9 1.531	25.4 1.000	17 .669	2 .079	9.5 .374	29.4 1.157	6.8 .268	55.5 2.19	M10 X 1.25 ¾-24UNF	5,750	3,440
40 1½ 1⅞	AEL208 AEL208-108 AEL208-109	80 3.1496	43.7 1.719	30.2 1.189	18 .709	2 .079	11 .433	32.7 1.286	6.8 .268	60 2.37	M10 X 1.25 ¾-24UNF	6,550	4,000

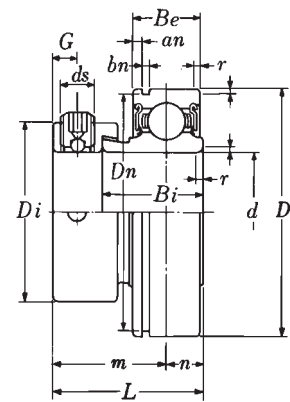
Units: Millimeters
INCHES



AEL2

BALL BEARING INSERTS – AELS2 SERIES

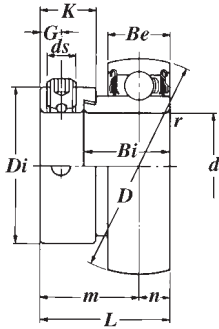
Bore <i>d</i>	Bearing Number	Nominal Dimensions												Socket Set Screw <i>ds</i>	Basic Load Ratings (lbs)	
		<i>D</i>	<i>L</i>	<i>Bi</i>	<i>Be</i>	<i>r</i>	<i>n</i>	<i>m</i>	<i>G</i>	<i>Di</i>	<i>Dn</i>	<i>an</i>	<i>bn</i>		Dynamic <i>C</i>	Static <i>C₀</i>
12 ½	AELS201N AELS201-008N	40 1.5748	28.6 1.126	19 .748	12 .472	1 .039	6.5 .256	22.1 .870	4.8 .189	29 1.14	38.1 1.500	1.98 .078	1.5 .059	M6 X 0.75 ¼-28UNF	2,160	1,030
15 ⅝ ⅞	AELS202N AELS202-009N AELS202-010N	40 1.5748	28.6 1.126	19 .748	12 .472	1 .039	6.5 .256	22.1 .870	4.8 .189	29 1.14	38.1 1.500	1.98 .078	1.5 .059	M6 X 0.75 ¼-28UNF	2,160	1,030
17 ⅞	AELS203N AELS203-011N	40 1.5748	28.6 1.126	19 .748	12 .472	1 .039	6.5 .256	22.1 .870	4.8 .189	29 1.14	38.1 1.500	1.98 .078	1.5 .059	M6 X 0.75 ¼-28UNF	2,160	1,030
20 ¾	AELS204N AELS204-012N	47 1.8504	31 1.219	21.5 .846	14 .551	1.5 .059	7.5 .295	23.5 .924	4.8 .189	33 1.31	44.6 1.756	2.38 .094	1.5 .059	M6 X 0.75 ¼-28UNF	2,890	1,500
25 1⅜ 1⅝ 1⅞ 1	AELS205N AELS205-013N AELS205-014N AELS205-015N AELS205-100N	52 2.0472	31 1.219	21.5 .846	15 .591	1.5 .059	7.5 .295	23.5 .924	4.8 .189	38 1.50	49.7 1.958	2.38 .094	1.5 .059	M6 X 0.75 ¼-28UNF	3,150	1,760
30 1⅞ 1⅝ 1⅜ 1¼	AELS206N AELS206-101N AELS206-102N AELS206-103N AELS206-104N	62 2.4409	35.7 1.406	23.8 .937	16 .630	1.5 .059	9 .354	26.7 1.052	6 .236	44.5 1.75	59.6 2.347	3.18 .125	2.05 .081	M8 X 1 ⅝-24UNF	4,400	2,540
35 1⅞ 1⅝ 1⅜ 1⅞	AELS207N AELS207-104N AELS207-105N AELS207-106N AELS207-107N	72 2.8346	38.9 1.531	25.4 1.000	17 .669	2 .079	9.5 .374	29.4 1.157	6.8 .268	55.5 2.19	68.8 2.709	3.18 .125	2.05 .081	M10 X 1.25 ¾-24UNF	5,750	3,440
40 1½ 1⅞	AELS208N AELS208-108N AELS208-109N	80 3.1496	43.7 1.719	30.2 1.189	18 .709	2 .079	11 .433	32.7 1.286	6.8 .268	60 2.37	76.8 3.024	3.18 .125	2.05 .081	M10 X 1.25 ¾-24UNF	6,550	4,000



AELS2

NTN
SERIES
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TYPE

Units: **Millimeters**
INCHES



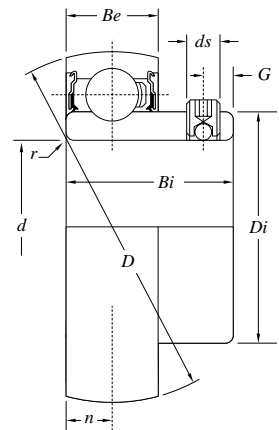
BALL BEARING INSERTS

Bore <i>d</i>	Bearing Number	Nominal Dimensions									Socket Set Screw <i>ds</i>	Basic Load Ratings (lbs)	
		<i>D</i>	<i>L</i>	<i>Bi</i>	<i>Be</i>	<i>r</i>	<i>n</i>	<i>m</i>	<i>G</i>	<i>Di</i>		Dynamic <i>C</i>	Static <i>C₀</i>
12 ½	JEL201 JEL201-008	40 1.5748	28.6 1.126	19 .748	13 .512	1 .039	6.5 .256	22.1 .870	4.8 .189	29 1.142	M6 X 0.75 ¼-28UNF	2,160	1,030
15 ⅝	JEL202 JEL202-009 JEL202-010	40 1.5748	28.6 1.126	19 .748	13 .512	1 .039	6.5 .256	22.1 .870	4.8 .189	29 1.142	M6 X 0.75 ¼-28UNF	2,160	1,030
17 1¼	JEL203 JEL203-011	40 1.5748	28.6 1.126	19 .748	13 .512	1 .039	6.5 .256	22.1 .870	4.8 .189	29 1.142	M6 X 0.75 ¼-28UNF	2,160	1,030
20 ¾	JEL204 JEL204-012	47 1.8504	31.0 1.220	21.5 .846	15 .591	1.5 .059	7.5 .295	23.5 .925	4.8 .189	33 1.299	M6 X 0.75 ¼-28UNF	2,890	1,500
25 1⅜ 7/8 1⅝ 1	JEL205 JEL205-013 JEL205-014 JEL205-015 JEL205-100	52 2.0472	31.0 1.220	21.5 .846	15 .591	1.5 .059	7.5 .295	23.5 .925	4.8 .189	38 1.496	M6 X 0.75 ¼-28UNF	3,150	1,770
30 1⅞ 1⅝ 1⅜ 1¼	JEL206 JEL206-101 JEL206-102 JEL206-103 JEL206-104	62 2.4409	35.7 1.406	23.8 .937	18 .709	1.5 .059	9 .354	26.7 1.051	6 .236	44.5 1.752	M8 X 1 ⅝-24UNF	4,400	2,540
35 1¼ 1⅝ 1⅜ 1⅞	JEL207 JEL207-104 JEL207-105 JEL207-106 JEL207-107	72 2.8346	38.9 1.531	25.4 1.000	19 .748	2 .079	9.5 .374	29.4 1.157	6.8 .268	55.5 2.185	M10 X 1.25 ¾-24UNF	5,750	3,450
40 1½ 1⅞	JEL208 JEL208-108 JEL208-109	80 3.1496	43.7 1.720	30.2 1.189	22 .866	2 .079	11 .433	32.7 1.287	6.8 .268	60 2.362	M10 X 1.25 ¾-24UNF	6,550	4,000
45 1⅞ 1⅞ 1⅞	JEL209 JEL209-110 JEL209-111 JEL209-112	85 3.3465	43.7 1.720	30.2 1.189	22 .866	2 .079	11 .433	32.7 1.287	6.8 .268	63.5 2.50	M10 X 1.25 ¾-24UNF	7,380	4,580
50 1⅞ 1⅞	JEL210 JEL210-114 JEL210-115	90 3.5433	43.7 1.720	30.2 1.189	22 .866	2 .079	11 .433	32.7 1.287	6.8 .268	69.5 2.74	M10 X 1.25 ¾-24UNF	7,930	5,220
55 2 2⅜	JEL211 JEL211-200 JEL211-203	100 3.9370	48.4 1.906	32.5 1.280	24 .945	2.5 .098	12 .472	36.4 1.433	8 .315	76 3.00	M10 X 1.25 ¾-24UNF	9,810	6,570
60 2¼	JEL212 JEL212-204	110 4.3307	53.1 2.091	37.2 1.465	27 1.063	2.5 .098	13.5 .531	39.6 1.559	8 .315	84 3.31	M10 X 1.25 ¾-24UNF	11,800	8,150

BALL BEARING INSERTS

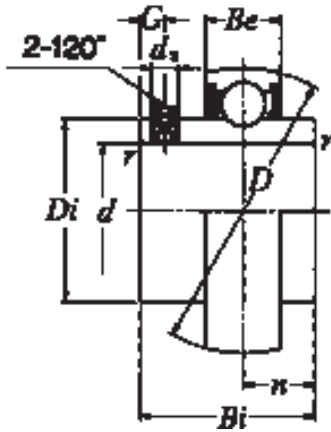
Bore <i>d</i>	Bearing Number	Nominal Dimensions							Socket Set Screw <i>ds</i>	Basic Load Ratings (lbs)	
		<i>D</i>	<i>Bi</i>	<i>Be</i>	<i>r</i>	<i>n</i>	<i>G</i>	<i>Di</i>		Dynamic <i>C</i>	Static <i>C₀</i>
12 ½	AR201 AR201-008	40 1.5748	22.5 .8858	13 .5118	1 .0394	6.5 .2559	5 .1969	24.4 .9606	M6 X 0.75 ¼-28UNF	1,370	615
15 ⅝ ⅝	AR202 AR202-009 AR202-010	40 1.5748	22.5 .8858	13 .5118	1 .0394	6.5 .2559	5 .1969	24.4 .9606	M6 X 0.75 ¼-28UNF	1,740	805
17 ⅞ ⅞	AR203 AR203-011	40 1.5748	22.5 .8858	13 .5118	1 .0394	6.5 .2559	5 .1969	24.4 .9606	M6 X 0.75 ¼-28UNF	2,160	1,030
20 ¾	AR204 AR204-012	47 1.8504	25.5 1.0039	15 .5906	1.5 .0591	7.5 .2953	5 .1969	29.6 1.1654	M6 X 0.75 ¼-28UNF	2,890	1,500
25 1⅜ ⅞ 1⅝ 1	AR205 AR205-013 AR205-014 AR205-015 AR205-100	52 2.0472	27 1.0630	15 .5906	1.5 .0591	7.5 .2953	5 .1969	33.9 1.3346	M6 X 0.75 ¼-28UNF	3,150	1,770
30 1⅞ 1⅝ 1⅜ 1¼	AR206 AR206-101 AR206-102 AR206-103 AR206-104	62 2.4409	30 1.1811	18 .7087	1.5 .0591	9 .3543	5 .1969	40.8 1.6063	M6 X 0.75 ¼-28UNF	4,400	2,540
35 1¾ 1⅝ 1⅜ 1⅞	AR207 AR207-104 AR207-105 AR207-106 AR207-107	72 2.8346	35 1.3780	19 .7480	2 .0787	9.5 .3740	6 .2362	46.8 1.8425	M6 X 0.75 ¼-28UNF	5,750	3,450
40 1½ 1⅞	AR208 AR208-108 AR208-109	80 3.1496	40 1.5748	22 .8661	2 .0787	11 .4331	8 .3150	53 2.0866	M8 X 1 ⅝-24UNF	6,550	4,000
45 1⅝ 1⅞ 1¾	AR209 AR209-110 AR209-111 AR209-112	85 3.3465	41.5 1.6339	22 .8661	2 .0787	11 .4331	8 .3150	57.5 2.2638	M8 X 1 ⅝-24UNF	7,350	4,600
50 1⅞ 1⅞ 1⅞ 2	AR210 AR210-113 AR210-114 AR210-115 AR210-200	90 3.5433	43 1.6929	22 .8661	2 .0787	11 .4331	9 .3543	62.4 2.4567	M8 X 1 ⅝-24UNF	7,900	5,200

Units: **Millimeters**
INCHES





Units: Millimeters
INCHES



BALL BEARING INSERTS

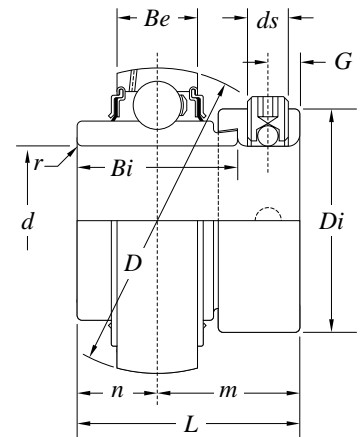
Bore <i>d</i>	Bearing Number	Nominal Dimensions							Socket Set Screw <i>ds</i>	Basic Load Ratings (lbs)	
		<i>D</i>	<i>Bi</i>	<i>Be</i>	<i>r</i>	<i>n</i>	<i>G</i>	<i>Di</i>		Dynamic <i>C</i>	Static <i>C₀</i>
12 ½	UR201 UR201-008	47 1.8504	31 1.2205	15 .5906	1 .0394	12.7 .5000	5 .1969	29.6 1.1654	M6 X 0.75 ¼-28UNF	1,370	615
15 ⅝ ⅞	UR202 UR202-009 UR202-010	47 1.8504	31 1.2205	15 .5906	1 .0394	12.7 .5000	5 .1969	29.6 1.1654	M6 X 0.75 ¼-28UNF	1,740	805
17 1 ¼	UR203 UR203-011	47 1.8504	31 1.2205	15 .5906	1 .0394	12.7 .5000	5 .1969	29.6 1.1654	M6 X 0.75 ¼-28UNF	2,160	1,030
20 ¾	UR204 UR204-012	47 1.8504	31 1.2205	15 .5906	1.5 .0591	12.7 .5000	5 .1969	29.6 1.1654	M6 X 0.75 ¼-28UNF	2,890	1,500
25 1 ⅜ 1 ½ 1 ⅝ 1	UR205 UR205-013 UR205-014 UR205-015 UR205-100	52 2.0472	34 1.3386	15 .5906	1.5 .0591	14.3 .5630	5 .1969	33.9 1.3346	M6 X 0.75 ¼-28UNF	3,150	1,770
30 1 ⅞ 1 ¾ 1 ⅝ 1 ¼	UR206 UR206-101 UR206-102 UR206-103 UR206-104	62 2.4409	38.1 1.5000	18 .7087	1.5 .0591	15.9 .6260	5 .1969	40.8 1.6063	M6 X 0.75 ¼-28UNF	4,400	2,540
35 1 ¾ 1 ⅝ 1 ⅜ 1 ⅞	UR207 UR207-104 UR207-105 UR207-106 UR207-107	72 2.8346	42.9 1.6890	19 .7480	2 .0787	17.5 .6890	6 .2362	46.8 1.8425	M6 X 0.75 ¼-28UNF	5,750	3,450
40 1 ½ 1 ⅞	UR208 UR208-108 UR208-109	80 3.1496	49.2 1.9370	22 .8661	2 .0787	19 .7480	8 .3150	53 2.0866	M8 X 1 ⅝-24UNF	6,550	4,000
45 1 ⅝ 1 1 ⅞ 1 ¾	UR209 UR209-110 UR209-111 UR209-112	85 3.3465	49.2 1.9370	22 .8661	2 .0787	19 .7480	8 .3150	57.5 2.2638	M8 X 1 ⅝-24UNF	7,350	4,600
50 1 1 ⅞ 1 ¾ 1 ⅝ 2	UR210 UR210-113 UR210-114 UR210-115 UR210-200	90 3.5433	51.6 2.0315	22 .8661	2 .0787	19 .7480	9 .3543	62.4 2.4567	M8 X 1 ⅝-24UNF	7,900	5,200
55 2 2 ⅞ 2 ⅝ 2 ¾	UR211 UR211-200 UR211-201 UR211-202 UR211-203	100 3.9370	55.6 2.1890	24 .9449	2.5 .0984	22.2 .8740	9 .3543	69 2.7165	M8 X 1 ⅝-24UNF	9,750	6,550
60 2 ¼ 2 ⅝ 2 ⅜ 2 ⅞	UR212 UR212-204 UR212-205 UR212-206 UR212-207	110 4.3307	65.1 2.5630	27 1.0630	2.5 .0984	25.4 1.0000	10 .3937	77 3.0315	M10 X 1.25 ⅝-24UNF	11,800	8,150

BALL BEARING INSERTS

Units: **Millimeters**
INCHES

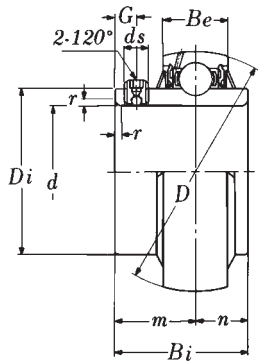


Bore <i>d</i>	Bearing Number	Nominal Dimensions									Socket Set Screw <i>ds</i>	Basic Load Ratings (lbs)	
		<i>D</i>	<i>L</i>	<i>Bi</i>	<i>Be</i>	<i>r</i>	<i>n</i>	<i>m</i>	<i>G</i>	<i>Di</i>		Dynamic <i>C</i>	Static <i>C₀</i>
20 ¾	REL204 REL204-012	47 1.8504	43.7 1.720	34.2 1.3465	15 .591	1.5 .059	17.1 .673	26.6 1.047	4.8 .189	33 1.31	M6 X 0.75 ¼-28UNF	2,890	1,500
25 1 1/16 7/8 1 1/8 1	REL205 REL205-013 REL205-014 REL205-015 REL205-100	52 2.0472	44.4 1.748	34.9 1.3740	15 .591	1.5 .059	17.45 .687	26.9 1.061	4.8 .189	38 1.50	M6 X 0.75 ¼-28UNF	3,150	1,770
30 1 1/16 1 1/8 1 3/16 1 1/4	REL206 REL206-101 REL206-102 REL206-103 REL206-104	62 2.4409	48.4 1.906	36.5 1.4370	18 .709	1.5 .059	18.25 .719	30.2 1.188	6 .236	44.5 1.75	M8 X 1 5/16-24UNF	4,400	2,540
35 1 1/4 1 5/16 1 3/8 1 7/16	REL207 REL207-104 REL207-105 REL207-106 REL207-107	72 2.8346	51.1 2.012	37.6 1.4803	19 .748	2 .079	18.8 .740	32.3 1.272	6.8 .268	55.5 2.19	M10 X 1.25 3/8-28UNF	5,750	3,450
40 1 1/2 1 9/16	REL208 REL208-108 REL208-109	80 3.1496	56.3 2.217	42.8 1.6850	22 .866	2 .079	21.4 .843	34.9 1.375	6.8 .268	60 2.37	M10 X 1.25 3/8-28UNF	6,550	4,000
45 1 5/8 1 11/16 1 3/4	REL209 REL209-110 REL209-111 REL209-112	85 3.3465	56.3 2.217	42.8 1.6850	22 .866	2 .079	21.4 .843	34.9 1.375	6.8 .268	63.5 2.50	M10 X 1.25 3/8-28UNF	7,350	4,600
50 1 13/16 1 7/8 1 15/16 2	REL210 REL210-113 REL210-114 REL210-115 REL210-200	90 3.5433	62.7 2.469	49.2 1.9370	22 .866	2 .079	24.6 .969	38.1 1.501	6.8 .268	69.5 2.74	M10 X 1.25 3/8-28UNF	7,900	5,200
55 2 2 1/16 2 1/8 2 3/16	REL211 REL211-200 REL211-201 REL211-202 REL211-203	100 3.9370	71.4 2.811	55.5 2.1850	24 .945	2.5 .098	27.75 1.093	43.7 1.719	8 .315	76 3.00	M10 X 1.25 3/8-28UNF	9,750	6,550
60 2 1/4 2 5/16 2 3/8 2 7/16	REL212 REL212-204 REL212-205 REL212-206 REL212-207	110 4.3307	77.8 3.063	61.9 2.4370	27 1.063	2.5 .098	30.95 1.219	46.9 1.845	8 .315	84 3.31	M10 X 1.25 3/8-28UNF	11,800	8,150





Units: **Millimeters**
INCHES



BALL BEARING INSERTS

Bore <i>d</i>	Bearing Number	Nominal Dimensions								Socket Set Screw <i>ds</i>	Basic Load Ratings (lbs)	
		<i>D</i>	<i>Bi</i>	<i>Be</i>	<i>r</i>	<i>n</i>	<i>m</i>	<i>G</i>	<i>Di</i>		Dynamic <i>C</i>	Static <i>C₀</i>
12 ½	UC201D1 UC201-008D1	47 1.8504	31 1.220	18 .709	1 .039	12.7 .500	18.3 .720	4.5 .177	29.6 1.165	M5 X 0.8 10-32UNF	2,890	1,500
15 9/16 5/8	UC202D1 UC202-009D1 UC202-010D1	47 1.8504	31 1.220	18 .709	1 .039	12.7 .500	18.3 .720	4.5 .177	29.6 1.165	M5 X 0.8 10-32UNF	2,890	1,500
17 1 1/16	UC203D1 UC203-011D1	47 1.8504	31 1.220	18 .709	1 .039	12.7 .500	18.3 .720	4.5 .177	29.6 1.165	M5 X 0.8 10-32UNF	2,890	1,500
20 ¾	UC204D1 UC204-012D1	47 1.8504	31 1.220	18 .709	1.5 .059	12.7 .500	18.3 .720	4.5 .177	29.6 1.165	M5 X 0.8 10-32UNF	2,890	1,500
25 1 3/16 7/8 1 5/16 1	UC205D1 UC205-013D1 UC205-014D1 UC205-015D1 UC205-100D1	52 2.0472	34 1.339	18 .709	1.5 .059	14.3 .563	19.7 .776	5 .197	33.9 1.335	M5 X 0.8 10-32UNF	3,150	1,760
30 1 1/16 1 1/8 1 3/8 1 1/4	UC206D1 UC206-101D1 UC206-102D1 UC206-103D1 * UC206-104D1	62 2.4409	38.1 1.500	20 .787	1.5 .059	15.9 .626	22.2 .874	5 .197	40.8 1.606	M6 X 0.75 ¼-28UNF	4,400	2,540
35 1 ¼ 1 5/16 1 3/8 1 7/16	UC207D1 UC207-104D1 UC207-105D1 UC207-106D1 * UC207-107D1	72 2.8346	42.9 1.689	22 .866	2 .079	17.5 .689	25.4 1.000	6 .236	46.8 1.843	M6 X 0.75 ¼-28UNF	5,750	3,440
40 1 ½ 1 9/16	UC208D1 UC208-108D1 UC208-109D1	80 3.1496	49.2 1.937	24 .945	2 .079	19 .748	30.2 1.189	8 .315	53 2.087	M8 X 1 5/16-24UNF	6,550	4,000
45 1 5/8 1 11/16 1 ¾	UC209D1 UC209-110D1 UC209-111D1 UC209-112D1	85 3.3465	49.2 1.937	24 .945	2 .079	19 .748	30.2 1.189	8 .315	57.5 2.264	M8 X 1 5/16-24UNF	7,350	4,590
50 1 13/16 1 7/8 1 15/16 2	UC210D1 UC210-113D1 UC210-114D1 UC210-115D1 UC210-200D1	90 3.5433	51.6 2.031	25 .984	2 .079	19 .748	32.6 1.283	9 .354	62.4 2.457	M8 X 1 5/16-24UNF	7,900	5,220
55 2 2 1/16 2 1/8 2 3/16	UC211D1 UC211-200D1 UC211-201D1 UC211-202D1 UC211-203D1	100 3.9370	55.6 2.189	27 1.063	2.5 .098	22.2 .874	33.4 1.315	9 .354	69 2.717	M8 X 1 5/16-24UNF	9,750	6,560
60 2 ¼ 2 3/8 2 7/16	UC212D1 UC212-204D1 UC212-206D1 * UC212-207D1	110 4.3307	65.1 2.563	30 1.181	2.5 .098	25.4 1.000	39.7 1.563	10 3.94	77 3.031	M10 X 1.25 ¾-24UNF	11,800	8,100
65 2 ½	UC213D1 UC213-208D1	120 4.7244	65.1 2.563	32 1.260	2.5 .098	25.4 1.000	39.7 1.563	10 .394	82.5 3.248	M10 X 1.25 ¾-24UNF	12,900	9,000
70 2 11/16 2 ¾	UC214D1 UC214-211D1 UC214-212D1	125 4.9213	74.6 2.937	33 1.299	2.5 .098	30.2 1.189	44.4 1.748	12 .472	87 3.425	M10 X 1.25 ¾-24UNF	14,000	9,900
75 2 15/16 3	UC215D1 UC215-215D1 UC215-300D1	130 5.1181	77.8 3.063	34 1.339	2.5 .098	33.3 1.311	44.5 1.752	12 .472	93 3.661	M10 X 1.25 ¾-24UNF	14,900	11,100
80 3 1/8	UC216D1 UC216-302D1	140 5.5118	82.6 3.252	35 1.378	3 .118	33.3 1.311	49.3 1.941	12 .472	98.1 3.862	M10 X 1.25 ¾-24UNF	16,300	11,900
85 3 ¼	UC217D1 UC217-304D1	150 5.9055	85.7 3.374	36 1.417	3 .118	34.1 1.343	51.6 2.031	12 .472	106.1 4.177	M12 X 1.5 ½-20UNF	18,700	14,400
90 3 ½	UC218D1 UC218-308D1	160 6.2992	96 3.780	37 1.457	3 .118	39.7 1.563	56.3 2.217	12 .472	111.6 4.394	M12 X 1.5 ½-20UNF	21,600	16,100

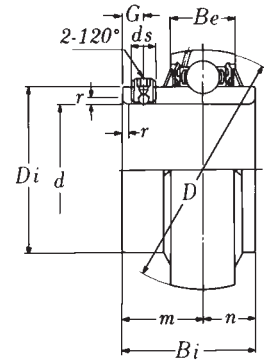
* Indicates units with notched set screw as standard.

BALL BEARING INSERTS

Units: Millimeters
INCHES

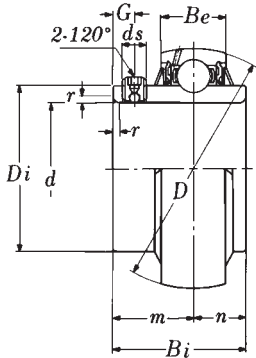


Bore <i>d</i>	Bearing Number	Nominal Dimensions								Socket Set Screw <i>ds</i>	Basic Load Ratings (lbs)	
		<i>D</i>	<i>Bi</i>	<i>Be</i>	<i>r</i>	<i>n</i>	<i>m</i>	<i>G</i>	<i>Di</i>		Dynamic <i>C</i>	Static <i>C₀</i>
25 1 1/16 7/8 15/16 1	UCX05D1 UCX25-013D1 UCX05-014D1 UCX05-015D1 UCX05-100D1	62 2.4409	38.1 1.500	20 .787	1.5 .059	15.9 .626	22.2 .874	5 .197	40.8 1.606	M6 X 0.75 1/4-28UNF	4,400	2,540
30 1 1/16 1 1/8 1 3/16	UCX06D1 UCX06-101D1 UCX06-102D1 UCX06-102D1	72 2.8346	42.9 1.689	22 .866	1.5 .059	17.5 .689	25.4 1.000	6 .236	46.8 1.843	M8 X 1 5/16-24UNF	5,750	3,440
35 1 5/16 1 3/8 1 7/16	UCX07D1 UCX07-105D1 UCX07-106D1 UCX07-107D1	80 3.1496	49.2 1.937	24 .945	2 .079	19 .748	30.2 1.189	8 .315	53 2.087	M8 X 1 5/16-24UNF	6,550	4,000
40 1 1/2 1 9/16	UCX08D1 UCX08-108D1 UCX08-109D1	85 3.3465	49.2 1.937	24 .945	2 .079	19 .748	30.2 1.189	8 .315	57.5 2.264	M8 X 1 5/16-24UNF	7,350	4,590
45 1 5/8 1 11/16 1 3/4	UCX09D1 UCX09-110D1 UCX09-111D1 UCX09-112D1	90 3.5433	51.6 2.031	25 .984	2 .079	19 .748	32.6 1.283	9 .354	62.4 2.457	M10 X 1.25 3/8-24UNF	7,900	5,220
50 1 7/8 1 15/16	UCX10D1 UCX10-114D1 UCX10-115D1	100 3.9370	55.6 2.189	27 1.063	2 .079	22.2 .874	33.4 1.315	9 .354	69 2.717	M10 X 1.25 3/8-24UNF	9,750	6,560
55 2 1/16 2 1/8 2 3/16	UCX11D1 UCX11-201D1 UCX11-202D1 UCX11-203D1	110 4.3307	65.1 2.563	30 1.181	2.5 .098	25.4 1.000	39.7 1.563	10 .394	77 3.031	M10 X 1.25 3/8-24UNF	11,800	8,100
60 2 3/8 2 7/16	UCX12D1 UCX12-206D1 UCX12-207D1	120 4.7244	65.1 2.563	32 1.260	2.5 .098	25.4 1.000	39.7 1.563	10 .394	82.5 3.248	M10 X 1.25 3/8-24UNF	12,900	9,000
65 2 1/2 2 5/8	UCX13D1 UCX13-208D1 UCX13-209D1	125 4.9213	74.6 2.937	33 1.299	2.5 .098	30.2 1.189	44.4 1.748	12 .472	87 3.425	M12 X 1.5 1/2-20UNF	14,000	9,900
70 2 5/8 2 11/16 2 3/4	UCX14D1 UCX14-210D1 UCX14-211D1 UCX14-212D1	130 5.1181	77.8 3.063	34 1.339	2.5 .098	33.3 1.311	44.5 1.752	12 .472	93 3.661	M12 X 1.5 1/2-20UNF	14,900	11,100
75 2 13/16 2 7/8 2 15/16 3	UCX15D1 UCX15-213D1 UCX15-214D1 UCX15-215D1 UCX15-300D1	140 5.5118	82.6 3.252	35 1.378	2.5 .098	33.3 1.311	49.3 1.941	12 .472	98.1 3.862	M12 X 1.5 1/2-20UNF	16,300	11,900
80 3 1/8 3 3/16	UCX16D1 UCX16-302D1 UCX16-303D1	150 5.9055	85.7 3.374	36 1.417	3 .118	34.1 1.343	51.6 2.031	12 .472	106.1 4.177	M12 X 1.5 1/2-20UNF	18,700	14,400
85 3 5/16 3 7/16	UCX17D1 UCX17-305D1 UCX17-307D1	160 6.2992	96 3.780	37 1.457	3 .118	39.7 1.563	56.3 2.217	12 .472	111.6 4.394	M12 X 1.5 1/2-20UNF	21,600	16,100
90 3 1/2	UCX18D1 UCX18-308D1	170 6.6929	104 4.094	39 1.535	3 .118	42.9 1.689	61.1 2.406	14 .551	118.2 4.654	M14 X 1.5 5/16-18UNF	24,500	18,400
100 3 7/8 3 15/16 4	UCX20D1 UCX20-314D1 UCX20-315D1 UCX20-400D1	190 7.4803	117.5 4.626	44 1.732	3.5 .138	49.2 1.937	68.3 2.689	16 .630	131.3 5.169	M16 X 1.5 5/8-18UNF	29,900	23,600





Units: Millimeters
INCHES



BALL BEARING INSERTS

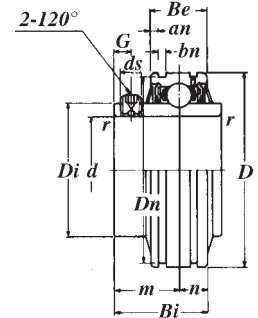
Bore <i>d</i>	Bearing Number	Nominal Dimensions								Socket Set Screw <i>ds</i>	Basic Load Ratings (lbs)	
		<i>D</i>	<i>Bi</i>	<i>Be</i>	<i>r</i>	<i>n</i>	<i>m</i>	<i>G</i>	<i>Di</i>		Dynamic <i>C</i>	Static <i>C₀</i>
25 7/8 15/16 1	UC305D1 UC305-014D1 UC305-015D1 UC305-100D1	62 2.4409	38 1.496	20 .787	2 .079	15 .591	23 .906	6 .236	36.8 1.449	M6 X 0.75 1/4-28UNF	4,750	2,460
30 1 1/8 1 1/16	UC306D1 UC306-102D1 UC306-103D1	72 2.8346	43 1.693	23 .906	2 .079	17 .669	26 1.024	6 .236	44.9 1.768	M6 X 0.75 1/4-28UNF	6,000	3,400
35 1 1/4 1 1/16 1 3/8 1 7/16	UC307D1 UC307-104D1 UC307-105D1 UC307-106D1 UC307-107D1	80 3.1496	48 1.890	25 .984	2.5 .098	19 .748	29 1.142	8 .315	49.4 1.945	M8 X 1 5/16-24UNF	7,500	4,300
40 1 1/2	UC308D1 UC308-108D1	90 3.5433	52 2.047	27 1.063	2.5 .098	19 .748	33 1.299	10 .394	56 2.205	M10 X 1.25 3/8-24UNF	9,150	5,400
45 1 5/8 1 11/16 1 3/4	UC309D1 UC309-110D1 UC309-111D1 UC309-112D1	100 3.9370	57 2.244	29 1.142	2.5 .098	22 .866	35 1.378	10 .394	63.5 2.500	M10 X 1.25 3/8-24UNF	11,900	7,200
50 1 7/8 1 15/16	UC310D1 UC310-114D1 UC310-115D1	110 4.3307	61 2.402	32 1.260	3 .118	22 .866	39 1.535	12 .472	70.6 2.780	M12 X 1.5 1/2-20UNF	13,900	8,660
55 2 2 1/8 2 3/16	UC311D1 UC311-200D1 UC311-202D1 UC311-203D1	120 4.7244	66 2.598	34 1.339	3 .118	25 .984	41 1.614	12 .472	76.6 3.016	M12 X 1.5 1/2-20UNF	16,100	10,100
60 2 1/4 2 3/8 2 7/16	UC312D1 UC312-204D1 UC312-206D1 UC312-207D1	130 5.1181	71 2.795	36 1.417	3.5 .138	26 1.024	45 1.772	12 .472	82.7 3.256	M12 X 1.5 1/2-20UNF	18,400	11,700
65 2 1/2	UC313D1 UC313-208D1	140 5.5118	75 2.953	39 1.535	3.5 .138	30 1.181	45 1.772	12 .472	88.2 3.472	M12 X 1.5 1/2-20UNF	20,800	13,400
70 2 11/16 2 3/4	UC314D1 UC314-211D1 UC314-212D1	150 5.9055	78 3.071	41 1.614	3.5 .138	33 1.299	45 1.772	12 .472	94.8 3.732	M12 X 1.5 1/2-20UNF	23,400	15,300
75 2 5/8 3	UC315D1 UC315-215D1 UC315-300D1	160 6.2992	82 3.228	43 1.693	3.5 .138	32 1.260	50 1.969	14 .551	101.3 3.988	M14 X 1.5 5/16-18UNF	25,500	17,400
80 3 1/8 3 3/16	UC316D1 UC316-302D1 UC316-303D1	170 6.6929	86 3.386	45 1.772	3.5 .138	34 1.339	52 2.047	14 .551	107.9 4.248	M14 X 1.5 5/16-18UNF	27,600	19,500
85 3 1/4	UC317D1 UC317-304D1	180 7.0866	96 3.780	47 1.850	4 .157	40 1.575	56 2.205	16 .630	114.4 4.504	M16 X 1.5 5/16-18UNF	29,800	21,800
90 3 7/16 3 1/2	UC318D1 UC318-307D1 UC318-308D1	190 7.4803	96 3.780	49 1.929	4 .157	40 1.575	56 2.205	16 .630	120.9 4.760	M16 X 1.5 5/16-18UNF	32,000	24,100
95 3 3/4	UC319D1 UC319-312D1	200 7.8740	103 4.055	51 2.008	4 .157	41 1.614	62 2.441	16 .630	127.5 5.020	M16 X 1.5 5/16-18UNF	34,500	26,600
100 3 15/16 4	UC320D1 UC320-315D1 UC320-400D1	215 8.4646	108 4.252	55 2.165	4 .157	42 1.654	66 2.598	18 .709	135.6 5.339	M18 X 1.5 5/16-18UNF	39,000	31,500
105	UC321D1	225	112	57	4	44	68	18	142.1	M18 X 1.5	41,400	34,500
110	UC322D1	240	117	59	4	46	71	18	151.7	M18 X 1.5	46,100	40,500
120	UC324D1	260	126	63	4	51	75	18	165.2	M18 X 1.5	46,600	41,500
130	UC326D1	280	135	67	5	54	81	20	178.3	M20 X 1.5	51,500	48,000
140	UC328D1	300	145	71	5	59	86	20	190.4	M20 X 1.5	56,900	55,500

BALL BEARING INSERTS

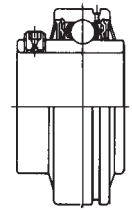
Units: **Millimeters**
INCHES



Bore <i>d</i>	Bearing Number	Nominal Dimensions											Socket Set Screw <i>ds</i>	Basic Load Ratings (lbs)	
		<i>D</i>	<i>Bi</i>	<i>Be</i>	<i>r</i>	<i>n</i>	<i>m</i>	<i>G</i>	<i>Di</i>	<i>Dn</i>	<i>an</i>	<i>bn</i>		Dynamic <i>C</i>	Static <i>C₀</i>
12 ½	UCS201D1N UCS201-008D1N	47 1.8504	31 1.220	18 .079	1 .039	12.7 .500	18.3 .720	4.5 .177	29.6 1.165	44.6 1.756	3.2 .126	1.5 .059	M5 X 0.8 10-32UNF	2,890	1,500
15 ⅝ ⅝	UCS202D1N UCS202-009D1N UCS202-010D1N	47 1.8504	31 1.220	18 .709	1 .039	12.7 .500	18.3 .720	4.5 .177	29.6 1.165	44.6 1.756	3.2 .126	1.5 .059	M5 X 0.8 10-32UNF	2,890	1,500
17 1⅞	UCS203D1N UCS203-011D1N	47 1.8504	31 1.220	18 .709	1 .039	12.7 .500	18.3 .720	4.5 .177	29.6 1.165	44.6 1.756	3.2 .126	1.5 .059	M5 X 0.8 10-32UNF	2,890	1,500
20 ¾	UCS204D1N UCS204-012D1N	47 1.8504	31 1.220	18 .709	1.5 .059	12.7 .500	18.3 .720	4.5 .177	29.6 1.165	44.6 1.756	3.2 .126	1.5 .059	M5 X 0.8 10-32UNF	2,890	1,500
25 1⅜ ⅞ 1⅞ 1	UCS205D1N UCS205-013D1N UCS205-014D1N UCS205-015D1N UCS205-100D1N	52 2.0472	34 1.339	18 .709	1.5 .059	14.3 .563	19.7 .776	5 .197	33.9 1.335	49.73 1.958	3.2 .126	1.5 .059	M5 X 0.8 10-32UNF	3,150	1,760
30 1 ⅞ 1 ⅞ 1 ⅞	UCS206D1N UCS206-101D1N UCS206-102D1N UCS206-103D1N	62 2.4409	38.1 1.500	20 .787	1.5 .059	15.9 .626	22.2 .874	5 .197	40.8 1.606	59.61 2.347	3.5 .138	2.05 .081	M6 X 0.75 ¼-28UNF	4,400	2,540
35 1 ¼ 1 ⅞ 1 ⅞ 1 ⅞	UCS207D1N UCS207-104D1N UCS207-105D1N UCS207-106D1N *UCS207-107D1N	72 2.8346	42.9 1.689	22 .866	2 .079	17.5 .689	25.4 1.000	6 .236	46.8 1.843	68.81 2.709	3.7 .146	2.05 .081	M6 X 0.75 ¼-28UNF	5,750	3,440
40 1 ½ 1 ½	UCS208D1N UCS208-108D1N UCS208-109D1N	80 3.1496	49.2 1.937	24 .945	2 .079	19 .748	30.2 1.189	8 .315	53 2.087	76.81 3.024	3.7 .146	2.05 .081	M8 X 1 ⅝-24UNF	6,550	4,000
45 1 ⅝ 1 ⅞ 1 ¾	UCS209D1N UCS209-110D1N UCS209-111D1N UCS209-112D1N	85 3.3465	49.2 1.937	24 .945	2 .079	19 .748	30.2 1.189	8 .315	57.5 2.264	81.81 3.221	3.7 .146	2.05 .081	M8 X 1 ⅝-24UNF	7,350	4,590
50 1 ⅞ 1 ⅞ 1 ⅞	UCS210D1N UCS210-113D1N UCS210-114D1N UCS210-115D1N	90 3.5433	51.6 2.031	25 .984	2 .079	19 .748	32.6 1.283	9 .354	62.4 2.457	86.79 3.417	4 .157	2.85 .112	M8 X 1 ⅝-24UNF	7,900	5,220
55 2 2 ⅞ 2 ⅞ 2 ⅞	UCS211D1N UCS211-200D1N UCS211-201D1N UCS211-202D1N UCS211-203D1N	100 3.9370	55.6 2.189	27 1.063	2.5 .098	22.2 .874	33.4 1.315	9 .354	69 2.717	96.8 3.811	4.5 .177	2.85 .112	M8 X 1 ⅝-24UNF	9,750	6,560
60 2 ¼ 2 ⅞ 2 ⅞	UCS212D1 UCS212-204D1 UCS212-206D1 *UCS212-207D1	110 4.3307	65.1 2.563	30 1.181	2.5 .098	25.4 1.000	39.7 1.563	10 .394	77 3.031	— —	— —	— —	M10 X 1.25 ¾-24UNF	11,800	8,100
65 2 ½	UCS213D1 UCS213-208D1	120 4.7244	65.1 2.563	32 1.260	2.5 .098	25.4 1.000	39.7 1.563	10 .394	82.5 3.248	— —	— —	— —	M10 X 1.25 ¾-24UNF	12,900	9,000
70	UCS214D1	125	74.6	33	2.5	30.2	44.4	12	87	—	—	—	M10 X 1.25	14,000	9,900
75	UCS215D1	130	77.8	34	2.5	33.3	44.5	12	93	—	—	—	M10 X 1.25	14,900	11,100
80	UCS216D1	140	82.6	35	3	33.3	49.3	12	98.1	—	—	—	M10 X 1.25	16,300	11,900
85	UCS217D1	150	85.7	36	3	34.1	51.6	12	106.1	—	—	—	M12 X 1.5	18,700	14,300
90	UCS218D1	160	96	37	3	39.7	56.3	12	111.6	—	—	—	M12 X 1.5	21,600	16,100



UCS...D1N

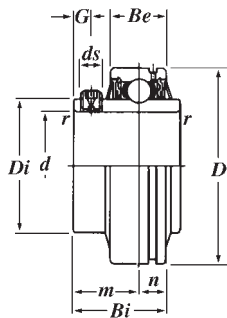


UCS...D1

* Indicates units with notched set screw as standard



Units: Millimeters
INCHES



BALL BEARING INSERTS

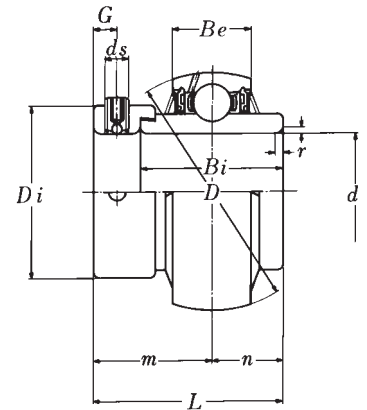
Bore <i>d</i>	Bearing Number	Nominal Dimensions								Socket Set Screw <i>ds</i>	Basic Load Ratings (lbs)	
		<i>D</i>	<i>Bi</i>	<i>Be</i>	<i>r</i>	<i>n</i>	<i>m</i>	<i>G</i>	<i>Di</i>		Dynamic <i>C</i>	Static <i>C₀</i>
25 7/8 1 1/16 1	UCS305D1 UCS305-014D1 UCS305-015D1 UCS305-100D1	62 2.4409	38 1.496	20 .787	2 .079	15 .591	23 .906	6 .236	36.8 1.449	M6 X 0.75 1/4-28UNF	4,770	2,450
30 1 1/8 1 3/16	UCS306D1 UCS306-102D1 UCS306-103D1	72 2.8346	43 1.693	23 .906	2 .079	17 .669	26 1.024	6 .236	44.9 1.768	M6 X 0.75 1/4-28UNF	6,000	3,370
35 1 1/4 1 9/16 1 3/8 1 7/16	UCS307D1 UCS307-104D1 UCS307-105D1 UCS307-106D1 UCS307-107D1	80 3.1496	48 1.890	25 .984	2.5 .098	19 .748	29 1.142	8 .315	49.4 1.945	M8 X 1 5/16-24UNF	7,530	4,290
40 1 1/2	UCS308D1 UCS308-108D1	90 3.5433	52 2.047	27 1.063	2.5 .098	19 .748	33 1.299	10 .394	56 2.205	M10 X 1.25 3/8-24UNF	9,100	5,400
45 1 5/8 1 11/16 1 3/4	UCS309D1 UCS309-110D1 UCS309-111D1 UCS309-112D1	100 3.9370	57 2.244	29 1.142	2.5 .098	22 .866	35 1.378	10 .394	63.5 2.500	M10 X 1.25 3/8-24UNF	11,900	7,200
50 1 7/8 1 15/16	UCS310D1 UCS310-114D1 UCS310-115D1	110 4.3307	61 2.402	32 1.260	3 .118	22 .866	39 1.535	12 .472	70.6 2.780	M12 X 1.5 1/2-20UNF	13,900	8,660
55 2 2 1/8 2 3/16	UCS311D1 UCS311-200D1 UCS311-202D1 UCS311-203D1	120 4.7244	66 2.598	34 1.339	3 .118	25 .984	41 1.614	12 .472	76.6 3.016	M12 X 1.5 1/2-20UNF	16,100	10,100
60 2 1/4 2 3/8 2 7/16	UCS312D1 UCS312-204D1 UCS312-206D1 UCS312-207D1	130 5.1181	71 2.795	36 1.417	3.5 .138	26 1.024	45 1.772	12 .472	82.7 3.256	M12 X 1.5 1/2-20UNF	18,400	11,700
65 2 1/2	UCS313D1 UCS313-208D1	140 5.5118	75 2.953	39 1.535	3.5 .138	30 1.181	45 1.772	12 .472	88.2 3.472	M12 X 1.5 1/2-20UNF	20,800	13,500
70 2 11/16 2 3/4	UCS314D1 UCS314-211D1 UCS314-212D1	150 5.9055	78 3.071	41 1.614	3.5 .138	33 1.299	45 1.772	12 .472	94.8 3.732	M12 X 1.5 1/2-20UNF	23,400	15,300
75 2 5/8 3	UCS315D1 UCS315-215D1 UCS315-300D1	160 6.2992	82 3.228	43 1.693	3.5 .138	32 1.260	50 1.969	14 .551	101.3 3.988	M14 X 1.5 5/16-18UNF	25,400	17,300
80 3 1/8 3 3/16	UCS316D1 UCS316-302D1 UCS316-303D1	170 6.6929	86 3.386	45 1.772	3.5 .138	34 1.339	52 2.047	14 .551	107.9 4.248	M14 X 1.5 5/16-18UNF	27,700	19,400
85 3 1/4	UCS317D1 UCS317-304D1	180 7.0866	96 3.780	47 1.850	4 .157	40 1.575	56 2.205	16 .630	114.4 4.504	M16 X 1.5 5/8-18UNF	29,900	21,800
90 3 7/16 3 1/2	UCS318D1 UCS318-307D1 UCS318-308D1	190 7.4803	96 3.780	49 1.929	4 .157	40 1.575	56 2.205	16 .630	120.9 4.760	M16 X 1.5 5/8-18UNF	32,100	24,100
95 3 3/4	UCS319D1 UCS319-312D1	200 7.8740	103 4.055	51 2.008	4 .157	41 1.614	62 2.441	16 .630	127.5 5.020	M16 X 1.5 5/8-18UNF	34,400	26,800
100 3 15/16 4	UCS320D1 UCS320-315D1 UCS320-400D1	215 8.4646	108 4.252	55 2.165	4 .157	42 1.654	66 2.598	18 .709	135.6 5.339	M18 X 1.5 5/8-18UNF	38,900	31,700
105	UCS321D1	225	112	57	4	44	68	18	142.1	M18 X 1.5	41,400	34,400
110	UCS322D1	240	117	59	4	46	71	18	151.7	M18 X 1.5	46,100	40,200
120	UCS324D1	260	126	63	4	51	75	18	165.2	M18 X 1.5	46,500	41,600
130	UCS326D1	280	135	67	5	54	81	20	178.3	M20 X 1.5	51,500	48,100
140	UCS328D1	300	145	71	5	59	86	20	190.4	M20 X 1.5	56,900	55,300

BALL BEARING INSERTS

Units: **Millimeters**
INCHES

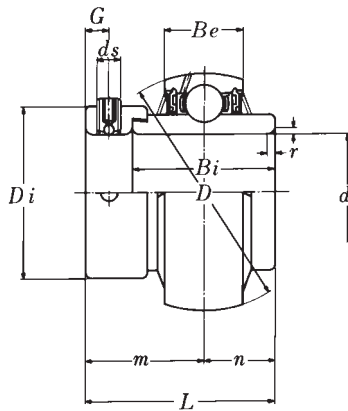


Bore <i>d</i>	Bearing Number	Nominal Dimensions									Socket Set Screw <i>ds</i>	Basic Load Ratings (lbs)	
		<i>D</i>	<i>L</i>	<i>Bi</i>	<i>Be</i>	<i>r</i>	<i>n</i>	<i>m</i>	<i>G</i>	<i>Di</i>		Dynamic <i>C</i>	Static <i>C₀</i>
20 ¾	UEL204D1 UEL204-012D1	47 1.8504	43.7 1.720	34.2 1.346	18 .709	1.5 .059	17.1 .672	26.6 1.047	4.8 .189	33 1.31	M6 X 0.75 ¼-28UNF	2,890	1,500
25 1 3/16 7/8 1 1/16	UEL205D1 UEL205-013D1 UEL205-014D1 UEL205-015D1 UEL205-100D1	52 2.0472	44.4 1.748	34.9 1.374	18 .709	1.5 .059	17.5 .688	26.9 1.059	4.8 .189	38 1.50	M6 X 0.75 ¼-28UNF	3,150	1,760
30 1 1/16 1 1/8 1 3/16 1 1/4	UEL206D1 UEL206-101D1 UEL206-102D1 UEL206-103D1 UEL206-104D1	62 2.4409	48.4 1.906	36.5 1.437	20 .787	1.5 .059	18.3 .719	30.1 1.185	6 .236	44.5 1.75	M8 X 1 5/16-24UNF	4,400	2,540
35 1 ¼ 1 5/16 1 3/8 1 7/16	UEL207D1 UEL207-104D1 UEL207-105D1 UEL207-106D1 UEL207-107D1	72 2.8346	51.1 2.012	37.6 1.480	22 .866	2 .079	18.8 .742	32.3 1.272	6.8 .268	55.5 2.19	M10 X 1.25 ¾-24UNF	5,750	3,440
40 1 ½ 1 9/16	UEL208D1 UEL208-108D1 UEL208-109D1	80 3.1496	56.3 2.217	42.8 1.685	24 .945	2 .079	21.4 .844	34.9 1.374	6.8 .268	60 2.37	M10 X 1.25 ¾-24UNF	6,550	4,000
45 1 5/8 1 11/16 1 ¾	UEL209D1 UEL209-110D1 UEL209-111D1 UEL209-112D1	85 3.3465	56.3 2.217	42.8 1.685	24 .945	2 .079	21.4 .844	34.9 1.374	6.8 .268	63.5 2.50	M10 X 1.25 ¾-24UNF	7,350	4,590
50 1 13/16 1 7/8 1 15/16 2	UEL210D1 UEL210-113D1 UEL210-114D1 UEL210-115D1 UEL210-200D1	90 3.5433	62.7 2.469	49.2 1.937	25 .984	2 .079	24.6 .969	38.1 1.500	6.8 .268	69.5 2.74	M10 X 1.25 ¾-24UNF	7,900	5,220
55 2 2 1/16 2 1/8 2 3/16	UEL211D1 UEL211-200D1 UEL211-201D1 UEL211-202D1 UEL211-203D1	100 3.9370	71.4 2.811	55.5 2.185	27 1.063	2.5 .098	27.8 1.094	43.6 1.717	8 .315	76 3.00	M10 X 1.25 ¾-24UNF	9,750	6,560
60 2 ¼ 2 3/8 2 7/16	UEL212D1 UEL212-204D1 UEL212-206D1 UEL212-207D1	110 4.3307	77.8 3.063	61.9 2.437	30 1.181	2.5 .098	31 1.219	46.8 1.843	8 .315	84 3.31	M10 X 1.25 ¾-24UNF	11,800	8,100
65 2 ½	UEL213D1 UEL213-208D1	120 4.7244	85.7 3.374	68.3 2.689	32 1.260	2.5 .098	34.15 1.344	51.55 2.030	8.7 .343	97 3.819	M10 X 1.25 ¾-24UNF	12,900	9,000
70 2 11/16 2 ¾	UEL214D1 UEL214-211D1 UEL214-212D1	125 4.9213	85.7 3.374	68.3 2.689	33 1.299	2.5 .098	34.15 1.344	51.55 2.030	8.7 .343	97 3.819	M10 X 1.25 ¾-24UNF	13,900	9,900
75 2 15/16 3	UEL215D1 UEL215-215D1 UEL215-300D1	130 5.1181	92 3.622	74.6 2.937	34 1.339	2.5 .098	37.3 1.469	54.7 2.154	8.7 .343	102 4.016	M10 X 1.25 ¾-24UNF	14,800	11,100



NTN
SERIES
UEL3
ECCENTRIC
LOCKING
COLLAR
TYPE

Units: **Millimeters**
INCHES



BALL BEARING INSERTS

Bore <i>d</i>	Bearing Number	Nominal Dimensions									Socket Set Screw <i>ds</i>	Basic Load Ratings (lbs)	
		<i>D</i>	<i>L</i>	<i>Bi</i>	<i>Be</i>	<i>r</i>	<i>n</i>	<i>m</i>	<i>G</i>	<i>Di</i>		Dynamic <i>C</i>	Static <i>C₀</i>
25 7/8 1 1/16 1	UEL305D1	62	46.8	34.9	20	2	16.7	30.1	6	42.8	M8 X 1 5/16-24UNF	4,770	2,450
	UEL305-014D1	2.4409	1.843	1.374	.787	.079	.657	1.185	.236	1.685			
	UEL305-015D1												
	UEL305-100D1												
30 1 1/8 1 3/16	UEL306D1	72	50	36.5	23	2	17.5	32.5	6.7	50	M8 X 1 5/16-24UNF	6,000	3,370
	UEL306-102D1	2.8346	1.969	1.437	.906	.079	.689	1.280	.264	1.969			
	UEL306-103D1												
35 1 1/4 1 5/16 1 3/8 1 7/16	UEL307D1	80	51.6	38.1	25	2.5	18.3	33.3	6.7	55	M8 X 1 5/16-24UNF	7,530	4,290
	UEL307-104D1	3.1496	2.031	1.500	.984	.098	.720	1.311	.264	2.165			
	UEL307-105D1												
	UEL307-106D1												
UEL307-107D1													
40 1 1/2	UEL308D1	90	57.1	41.3	27	2.5	19.8	37.3	8	63.5	M10 X 1.25 3/8-24UNF	9,100	5,400
	UEL308-108D1	3.5433	2.248	1.626	1.063	.098	.780	1.469	.315	2.500			
45 1 5/8 1 11/16 1 3/4	UEL309D1	100	58.7	42.9	29	2.5	19.8	38.9	8	70	M10 X 1.25 3/8-24UNF	11,900	7,200
	UEL309-110D1	3.9370	2.311	1.689	1.142	.098	.780	1.531	.315	2.756			
	UEL309-111D1												
UEL309-112D1													
50 1 7/8 1 15/16	UEL310D1	110	66.6	49.2	32	3	24.6	42	8.7	76.2	M10 X 1.25 3/8-24UNF	13,900	8,660
	UEL310-114D1	4.3307	2.622	1.937	1.260	.118	.969	1.654	.343	3.000			
	UEL310-115D1												
55 2 2 1/8 2 3/16	UEL311D1	120	73	55.6	34	3	27.8	45.2	8.7	83	M10 X 1.25 3/8-24UNF	16,100	10,100
	UEL311-200D1	4.7244	2.874	2.189	1.339	.118	1.094	1.780	.343	3.268			
	UEL311-202D1												
UEL311-203D1													
60 2 1/4 2 3/8 2 7/16	UEL312D1	130	79.4	61.9	36	3.5	30.95	48.45	8.7	89	M10 X 1.25 3/8-24UNF	18,400	11,700
	UEL312-204D1	5.1181	3.126	2.437	1.417	.138	1.219	1.907	.343	3.504			
	UEL312-206D1												
	UEL312-207D1												
65 2 1/2	UEL313D1	140	85.7	65.1	39	3.5	32.55	53.15	10.3	97	M12 X 1.5 1/2-20UNF	20,800	13,500
	UEL313-208D1	5.5118	3.374	2.563	1.535	.138	1.281	2.093	.406	3.819			
70 2 11/16 2 3/4	UEL314D1	150	92.1	68.3	41	3.5	34.15	57.95	10.3	102	M12 X 1.5 1/2-20UNF	23,400	15,300
	UEL314-211D1	5.9055	3.626	2.689	1.614	.138	1.344	2.281	.406	4.016			
	UEL314-212D1												
75 2 15/16 3	UEL315D1	160	100	74.6	43	3.5	37.3	62.7	12.7	113	M16 X 1.5 5/8-18UNF	25,400	17,300
	UEL315-215D1	6.2992	3.937	2.937	1.693	.138	1.469	2.469	.500	4.449			
	UEL315-300D1												
80 3 1/8 3 3/16	UEL316D1	170	106.4	81	45	3.5	40.5	65.9	12.7	119	M16 X 1.5 5/8-18UNF	27,700	19,400
	UEL316-302D1	6.6929	4.189	3.189	1.772	.138	1.594	2.594	.500	4.685			
	UEL316-303D1												
85 3 1/4	UEL317D1	180	109.5	84.1	47	4	42.05	67.45	12.7	127	M16 X 1.5 5/8-18UNF	29,900	21,800
	UEL317-304D1	7.0866	4.311	3.311	1.850	.157	1.656	2.656	.500	5.000			
90 3 7/16 3 1/2	UEL318D1	190	115.9	87.3	49	4	43.65	72.25	14.3	133	M20 X 1.5 3/4-16UNF	32,100	24,100
	UEL318-307D1	7.4803	4.563	3.437	1.929	.157	1.719	2.844	.563	5.236			
	UEL318-308D1												
95 3 3/4	UEL319D1	200	122.3	93.7	51	4	38.9	83.4	14.3	140	M20 X 1.5 3/4-16UNF	34,400	26,800
	UEL319-312D1	7.8740	4.815	3.689	2.008	.157	1.531	3.283	.563	5.512			
100 3 15/16 4	UEL320D1	215	128.6	100	55	4	50	78.6	14.3	146	M20 X 1.5 3/4-16UNF	38,900	31,700
	UEL320-315D1	8.4646	5.063	3.937	2.165	.157	1.969	3.094	.563	5.748			
	UEL320-400D1												
105	UEL321D1	225	139.7	104.8	57	4	48.4	91.3	17.5	157	M20 X 1.5	41,400	34,400
110	UEL322D1	240	141.3	106.4	59	4	49.2	92.1	17.5	168	M20 X 1.5	46,100	40,200

Bearing Series

AS2 SERIES

AS20122

Bearing Number

Weight (lbs)



BALL BEARING INSERTS

Table with columns for Bearing Series, Bearing Number, and Weight (lbs). Rows include AS2 SERIES, ASS2 SERIES, AEL2 SERIES, AELS2 SERIES, JEL2 SERIES, AR SERIES, and REL SERIES.



Bearing Series → **AS2 SERIES**

AS20122 ←

Bearing Number

Weight (lbs)

BALL BEARING INSERTS

UC2 SERIES	UCX07-105D1 .....1.87	UC312-204D1 .....5.73	UCS212-206D1 .....3.45
UC201D1 .....46	UCX07-106D1 .....1.81	UC312-206D1 .....5.73	UCS212-207D1 .....3.29
UC201-008D1 .....46	UCX07-107D1 .....1.74	UC312-207D1 .....5.73	UCS213D1 .....4.23
UC202D1 .....44	UCX08D1 .....2.05	UC313D1 .....7.17	UCS213-208D1 .....4.41
UC202-009D1 .....44	UCX08-108D1 .....2.16	UC313-208D1 .....7.17	UCS214D1 .....4.78
UC202-010D1 .....42	UCX08-109D1 .....2.07	UC314D1 .....8.58	UCS215D1 .....5.36
UC203D1 .....40	UCX09D1 .....2.21	UC314-211D1 .....8.58	UCS216D1 .....6.37
UC203-011D1 .....39	UCX09-110D1 .....2.43	UC314-212D1 .....8.58	UCS217D1 .....7.65
UC204D1 .....37	UCX09-111D1 .....2.34	UC315D1 .....10.4	UCS218D1 .....9.83
UC204-012D1 .....39	UCX09-112D1 .....2.25	UC315-215D1 .....10.4	
UC205D1 .....44	UCX10D1 .....2.98	UC315-300D1 .....10.4	UCS3 SERIES
UC205-013D1 .....53	UCX10-114D1 .....3.15	UC316D1 .....12.2	UCS305D1 .....82
UC205-014D1 .....51	UCX10-115D1 .....3.04	UC316-302D1 .....12.2	UCS305-014D1 .....90
UC205-015D1 .....46	UCX11D1 .....4.19	UC316-303D1 .....12.2	UCS305-015D1 .....83
UC205-100D1 .....44	UCX11-201D1 .....4.43	UC317D1 .....14.7	UCS305-100D1 .....81
UC206D1 .....73	UCX11-202D1 .....4.30	UC317-304D1 .....14.7	UCS306D1 .....1.28
UC206-101D1 .....82	UCX11-203D1 .....4.12	UC318D1 .....16.7	UCS306-102D1 .....1.33
UC206-102D1 .....77	UCX12D1 .....5.01	UC318-307D1 .....16.7	UCS306-103D1 .....1.28
UC206-103D1 .....73	UCX12-206D1 .....4.96	UC318-308D1 .....16.7	UCS307D1 .....1.63
UC206-104D1 .....66	UCX12-207D1 .....4.81	UC319D1 .....19.2	UCS307-104D1 .....1.77
UC207D1 .....1.08	UCX13D1 .....5.40	UC319-312D1 .....19.2	UCS307-105D1 .....1.70
UC207-104D1 .....1.21	UCX13-208D1 .....5.60	UC320D1 .....23.8	UCS307-106D1 .....1.64
UC207-105D1 .....1.15	UCX13-209D1 .....5.38	UC320-315D1 .....23.8	UCS307-107D1 .....1.57
UC207-106D1 .....1.08	UCX14D1 .....5.45	UC320-400D1 .....23.4	UCS308D1 .....2.21
UC207-107D1 .....1.01	UCX14-210D1 .....5.93	UC321D1 .....26.9	UCS308-108D1 .....2.32
UC208D1 .....1.43	UCX14-211D1 .....5.69	UC322D1 .....31.5	UCS309D1 .....2.93
UC208-108D1 .....1.52	UCX14-212D1 .....5.47	UC324D1 .....40.8	UCS309-110D1 .....3.17
UC208-109D1 .....1.46	UCX15D1 .....6.86	UC326D1 .....50.7	UCS309-111D1 .....3.09
UC209D1 .....1.54	UCX15-213D1 .....7.43	UC328D1 .....62.8	UCS309-112D1 .....2.98
UC209-110D1 .....1.76	UCX15-214D1 .....7.19		UCS310D1 .....3.79
UC209-111D1 .....1.68	UCX15-215D1 .....6.92	UCS2 SERIES	UCS310-114D1 .....3.99
UC209-112D1 .....1.57	UCX15-300D1 .....6.66	UCS201D1N .....46	UCS310-115D1 .....3.85
UC210D1 .....1.76	UCX16D1 .....8.36	UCS201-008D1N .....46	UCS311D1 .....4.74
UC210-113D1 .....2.03	UCX16-302D1 .....8.47	UCS202D1N .....44	UCS311-200D1 .....5.14
UC210-114D1 .....1.92	UCX16-303D1 .....8.18	UCS202-009D1N .....44	UCS311-202D1 .....4.85
UC210-115D1 .....1.81	UCX17D1 .....10.6	UCS202-010D1N .....42	UCS311-203D1 .....4.68
UC210-200D1 .....1.69	UCX17-305D1 .....10.8	UCS203D1N .....40	UCS312D1 .....5.95
UC211D1 .....2.38	UCX17-307D1 .....10.1	UCS203-011D1N .....39	UCS312-204D1 .....6.27
UC211-200D1 .....2.71	UCX18D1 .....12.2	UCS204D1N .....37	UCS312-206D1 .....5.89
UC211-201D1 .....2.60	UCX18-308D1 .....12.4	UCS204-012D1N .....39	UCS312-207D1 .....5.72
UC211-202D1 .....2.46	UCX20D1 .....19.7	UCS205D1N .....44	UCS313D1 .....7.43
UC211-203D1 .....2.34	UCX20-314D1 .....18.4	UCS205-013D1N .....53	UCS313-208D1 .....7.63
UC212D1 .....3.37	UCX20-315D1 .....19.7	UCS205-014D1N .....51	UCS314D1 .....8.89
UC212-204D1 .....3.66	UCX20-400D1 .....19.2	UCS205-015D1N .....46	UCS314-211D1 .....9.13
UC212-206D1 .....3.33		UCS205-100D1N .....44	UCS314-212D1 .....8.91
UC212-207D1 .....3.17	UC3 SERIES	UCS206D1N .....73	UCS315D1 .....10.8
UC213D1 .....4.08	UC305D1 .....77	UCS206-101D1N .....82	UCS315-215D1 .....10.9
UC213-208D1 .....4.26	UC305-014D1 .....77	UCS206-102D1N .....77	UCS315-300D1 .....10.6
UC214D1 .....4.63	UC305-015D1 .....77	UCS206-103D1N .....73	UCS316D1 .....12.7
UC214-211D1 .....4.87	UC305-100D1 .....77	UCS207D1N .....1.08	UCS316-302D1 .....12.7
UC214-212D1 .....4.65	UC306D1 .....1.23	UCS207-104D1N .....1.21	UCS316-303D1 .....12.5
UC215D1 .....5.18	UC306-102D1 .....1.23	UCS207-105D1N .....1.15	UCS317D1 .....15.2
UC215-215D1 .....5.25	UC306-103D1 .....1.23	UCS207-106D1N .....1.08	UCS317-304D1 .....15.7
UC215-300D1 .....4.98	UC307D1 .....1.57	UCS207-107D1N .....1.01	UCS318D1 .....17.2
UC216D1 .....6.17	UC307-104D1 .....1.57	UCS208D1N .....1.43	UCS318-307D1 .....17.8
UC216-302D1 .....6.28	UC307-105D1 .....1.57	UCS208-108D1N .....1.52	UCS318-308D1 .....17.4
UC217D1 .....7.43	UC307-106D1 .....1.57	UCS208-109D1N .....1.46	UCS319D1 .....19.8
UC217-304D1 .....7.92	UC307-107D1 .....1.57	UCS209D1N .....1.54	UCS319-312D1 .....19.7
UC218D1 .....9.61	UC308D1 .....2.12	UCS209-110D1N .....1.76	UCS320D1 .....24.5
UC218-308D1 .....9.88	UC308-108D1 .....2.12	UCS209-111D1N .....1.68	UCS320-315D1 .....24.5
	UC309D1 .....2.82	UCS209-112D1N .....1.57	UCS320-400D1 .....24.1
	UC309-110D1 .....2.82	UCS210D1N .....1.76	UCS321D1 .....27.8
	UC309-111D1 .....2.82	UCS210-113D1N .....2.03	UCS322D1 .....32.4
	UC309-112D1 .....2.82	UCS210-114D1N .....1.92	UCS324D1 .....41.9
	UC310D1 .....3.64	UCS210-115D1N .....1.81	UCS326D1 .....52.0
	UC310-114D1 .....3.64	UCS211D1N .....2.38	UCS328D1 .....64.4
	UC310-115D1 .....3.64	UCS211-200D1N .....2.71	
	UC311D1 .....4.56	UCS211-201D1N .....2.60	
	UC311-200D1 .....4.56	UCS211-202D1N .....2.46	
	UC311-202D1 .....4.56	UCS211-203D1N .....2.34	
	UC311-203D1 .....4.56	UCS212D1 .....3.51	
	UC312D1 .....5.73	UCS212-204D1 .....3.78	
UCX SERIES			
UCX05D1 .....86			
UCX05-013D1 .....97			
UCX05-014D1 .....93			
UCX05-015D1 .....88			
UCX05-100D1 .....84			
UCX06D1 .....1.50			
UCX06-101D1 .....1.61			
UCX06-102D1 .....1.54			
UCX06-103D1 .....1.50			
UCX07D12 .....1.81			

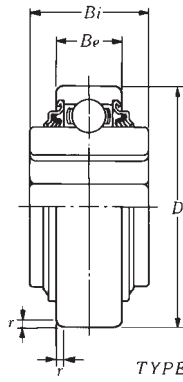
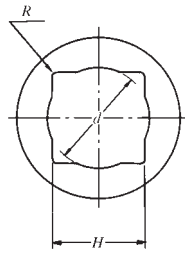
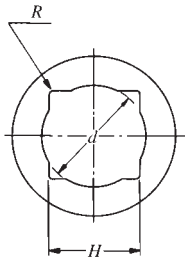


BALL BEARING INSERTS

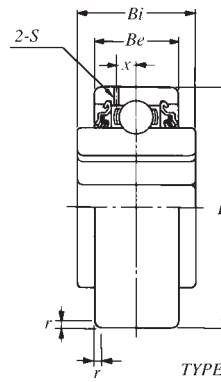
UEL2 SERIES		UEL3 SERIES	
UEL204D1 .....	.51	UEL210-114D1	2.36
UEL204-012D1 .....	.45	UEL210-115D1	2.25
UEL205D1 .....	.60	UEL210-200D1	2.09
UEL205-013D1 .....	.61	UEL211D1	2.91
UEL205-014D1 .....	.58	UEL211-200D1	3.28
UEL205-015D1 .....	.55	UEL211-201D1	3.12
UEL205-100D1 .....	.51	UEL211-202D1	3.02
UEL206D1 .....	.99	UEL211-203D1	2.90
UEL206-101D1 .....	.94	UEL212D1	4.12
UEL206-102D1 .....	.89	UEL212-204D1	4.38
UEL206-103D1 .....	.84	UEL212-206D1	4.05
UEL206-104D1 .....	.80	UEL212-207D1	3.88
UEL207D1	1.32		
UEL207-104D1	1.45		
UEL207-105D1	1.40		
UEL207-106D1	1.35		
UEL207-107D1	1.28		
UEL208D1	1.74		
UEL208-108D1	1.90		
UEL208-109D1	1.82		
UEL209D1	1.87		
UEL209-110D1	2.05		
UEL209-111D1	1.97		
UEL209-112D1	1.88		
UEL210D1	2.16		
UEL210-113D1	2.46		
		UEL305D1 .....	.95
		UEL305-014D1	1.05
		UEL305-015D1	1.01
		UEL305-100D1 .....	.96
		UEL306D1	1.52
		UEL306-102D1	1.51
		UEL306-103D1	1.45
		UEL307D1	1.76
		UEL307-104D1	1.92
		UEL307-105D1	1.84
		UEL307-106D1	1.77
		UEL307-107D1	1.69
		UEL308D1	2.38
		UEL308-108D1	2.58
		UEL309D1	3.20
		UEL309-110D1	3.36
		UEL309-111D1	3.26
		UEL309-112D1	3.15
		UEL310D1	4.10
		UEL310-114D1	4.29
		UEL310-115D1	4.15
		UEL311D1	5.16
		UEL311-200D1	5.58
		UEL311-202D1	5.25
		UEL311-203D1	5.08
		UEL312D1	6.48
		UEL312-204D1	6.80
		UEL312-206D1	6.48
		UEL312-207D1	6.19
		UEL313D1	8.09
		UEL313-208D1	8.49
		UEL314D1	9.70
		UEL314-211D1	10.2
		UEL314-212D1	9.96
		UEL315D1	11.8
		UEL315-215D1	12.7
		UEL315-300D1	12.5
		UEL316D1	14.8
		UEL316-302D1	14.6
		UEL316-303D1	14.9
		UEL317D1	17.6
		UEL317-304D1	17.7
		UEL318D1	20.1
		UEL318-307D1	20.7
		UEL318-308D1	20.2
		UEL319D1	22.9
		UEL319-312D1	22.6
		UEL320D1	28.7
		UEL320-315D1	27.6
		UEL320-400D1	27.0
		UEL321D1	32.2
		UEL322D1	37.9



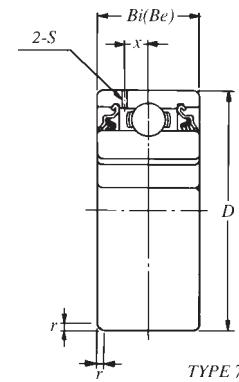
Units: INCHES



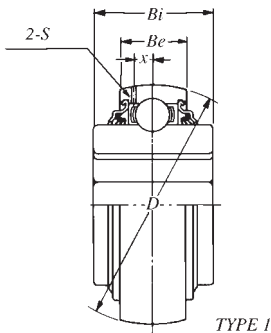
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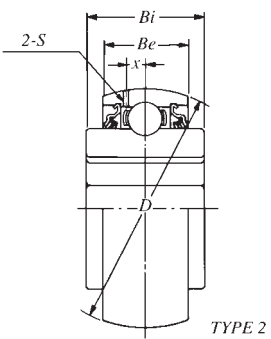
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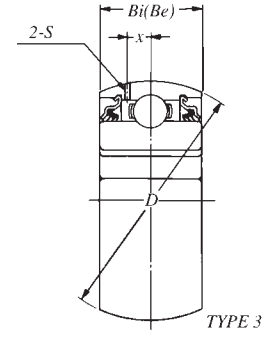
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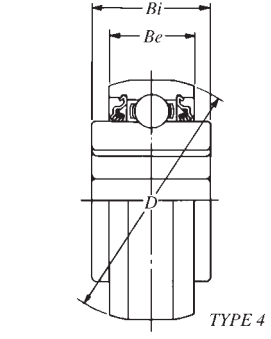
TYPE 1



TYPE 2



TYPE 3



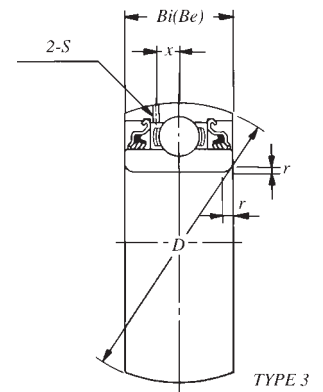
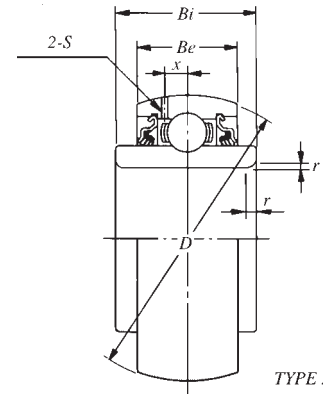
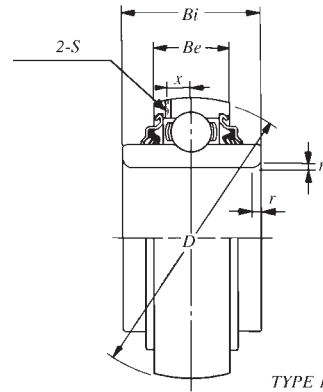
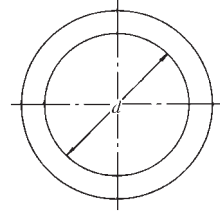
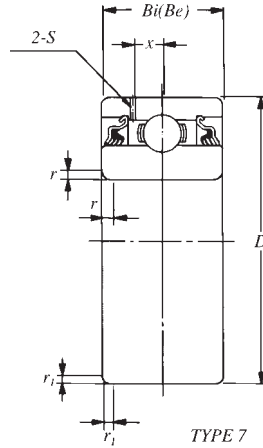
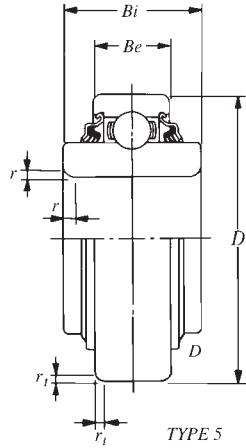
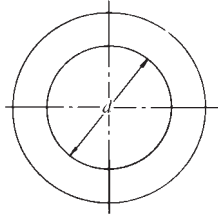
TYPE 4

DISC HARROW BEARINGS

Bearing No.	Type	Shaft Size	Sq. Bore Dim. ±.005 H	Max. d	Max. R	Outside Diameter D	Ring Widths ¹		r	s	x	Basic Load Ratings (lbs)		Weight (lbs)
							Be	Bi				Dynamic C	Static C ₀	
4AS08-7/8	4	7/8	.9050	.961	.089	3.4385/3.4375	1.189	1.437	—	—	—	6,500	4,000	2.02
1AS08-1	1	1	1.0300	1.094	.089	3.1496/3.1491	.709	1.437	—	—	—	6,500	4,000	1.38
2AS08-1	2	1	1.0300	1.094	.089	3.1496/3.1491	1.189	1.437	—	—	—	6,500	4,000	1.68
4AS08-1	4	1	1.0300	1.094	.089	3.4385/3.4375	1.189	1.437	—	—	—	6,500	4,000	1.94
1AS08-1 1/8	1	1 1/8	1.1800	1.236	.089	3.1496/3.1491	.709	1.437	—	—	—	6,500	4,000	1.27
2AS08-1 1/8	2	1 1/8	1.1800	1.236	.089	3.1496/3.1491	1.189	1.437	—	—	—	6,500	4,000	1.57
2AS08-1 1/8 D1	2	1 1/8	1.1800	1.236	.089	3.1496/3.1491	1.189	1.437	—	.087	.260	6,500	4,000	1.57
4AS08-1 1/8	4	1 1/8	1.1800	1.236	.089	3.4385/3.4375	1.189	1.437	—	—	—	6,500	4,000	1.83
1AS08-1 5/16 D1	1	1 5/16	1.1811	1.252	.089	3.1496/3.1491	.827	1.437	—	.087	.260	6,500	4,000	1.27
2AS09-1 1/4 D1	2	1 1/4	1.2900	1.370	.089	3.3465/3.3459	1.189	1.437	—	.087	.264	7,350	4,600	1.75
4AS09-1 1/4	4	1 1/4	1.2900	1.370	.089	3.4424/3.4346	1.189	1.437	—	—	—	7,350	4,600	1.81
2AS10-1 1/8	2	1 1/8	1.1800	1.236	.089	3.5433/3.5427	1.189	1.437	—	—	—	7,900	5,200	2.13
3AS10-1 1/8	3	1 1/8	1.1800	1.236	.089	3.5433/3.5427	1.189	1.189	—	—	—	7,900	5,200	1.90
1AS11-1 1/2 D1	1	1 1/2	1.5311	1.622	.089	3.9370-3.9364	.984	1.750	—	.098	.299	9,750	6,550	2.56
3AS11-1 1/2	3	1 1/2	1.5311	1.622	.089	3.9370-3.9364	1.311	1.311	—	—	—	9,750	6,550	2.40
3AS11-1 1/2 D1	3	1 1/2	1.5311	1.622	.089	3.9370-3.9364	1.311	1.311	—	.098	.299	9,750	6,550	2.40
4AS11-1 1/2	4	1 1/2	1.5311	1.622	.089	4.1250/4.1200	1.437	1.750	—	—	—	9,750	6,550	3.20
3AS14-2D1	3	2	2.0551	2.161	.157	4.9213/4.9205	1.563	1.563	—	.118	.370	14,000	9,900	4.30
5AS08-1 1/8	5	1 1/8	1.1800	1.236	.089	3.1496/3.1491	.709	1.437	.079	—	—	6,550	4,000	1.27
6AS08-1 1/8 D1	6	1 1/8	1.1800	1.236	.089	3.1496/3.1491	1.189	1.437	.079	.087	.264	6,550	4,000	1.57
6AS09-1 1/4	6	1 1/4	1.2900	1.370	.089	3.3460/3.3450	1.189	1.437	.079	—	—	7,350	4,600	1.75
6AS09-1 1/4 D1	6	1 1/4	1.2900	1.370	.089	3.3460/3.3450	1.189	1.437	.079	.087	.260	7,350	4,600	1.75
7AS10-1 1/8 D1	7	1 1/8	1.1800	1.236	.089	3.5433/3.5427	1.189	1.189	.079	0.87	.264	7,900	5,200	1.90
6AS11-1 1/2 V1	6	1 1/2	1.5311	1.622	.089	4.0000/3.9990	1.437	1.750	.098	—	—	9,750	6,550	3.06
7AS11-1 1/2	7	1 1/2	1.5311	1.622	.089	3.9370/3.9364	1.311	1.311	.098	—	—	9,750	6,550	2.40
7AS11-1 1/2 D1	7	1 1/2	1.5311	1.622	.089	3.9370/3.9364	1.311	1.311	.098	.098	.299	9,750	6,550	2.40

¹ Ring width tolerances are:
 Sizes up to and including AS110 +.000 to -.005
 AS11 through A14, +.000 to -.006

Units: INCHES

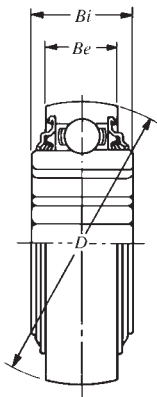
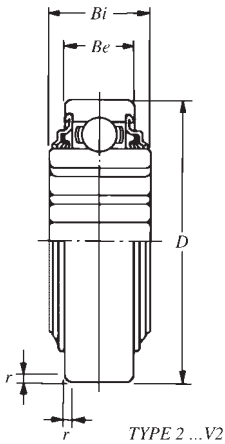
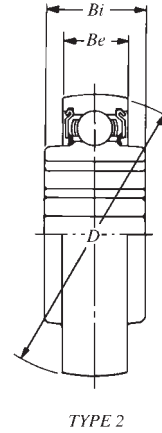
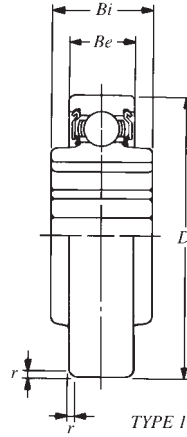
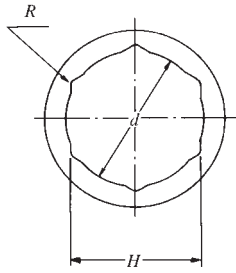


DISC HARROW BEARINGS

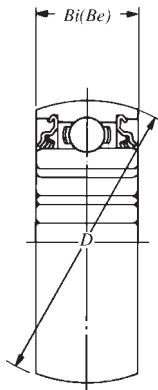
Bearing No.	Type	Bore <i>d</i>	Outside Diameter <i>D</i>	Ring Widths		<i>r</i>	<i>r</i> ₁	<i>s</i>	<i>x</i>	Basic Load Ratings (lbs)		Weight (lbs)
				<i>Be</i>	<i>Bi</i>					Dynamic <i>C</i>	Static <i>C</i> ₀	
1AC08-1 3/16	1	1.1880/1.1875	3.1496/3.1491	.709	1.189	.079	—	—	—	6,550	4,000	1.22
2AC08-1 1/2D1	2	1.5005/1.5000	3.1496/3.1491	1.189	1.689	.079	—	.087	.260	6,550	4,000	1.60
1AC09D1V1	1	1.7776/1.7717	3.3465/3.3459	.866	1.437	.079	—	.087	.264	7,350	4,600	1.30
3AC09	3	1.7717/1.7712	3.3465/3.3459	1.189	1.189	.079	—	—	—	7,350	4,600	1.44
3AC09D1	3	1.7717/1.7712	3.3465/3.3459	1.189	1.189	.079	—	.087	.284	7,350	4,600	1.44
3AC09-1 1/2	3	1.5350/1.5250	3.3465/3.3459	1.189	1.189	.079	—	—	—	7,350	4,600	1.58
3AC09-1 1/2D1	3	1.5350/1.5250	3.3465/3.3459	1.189	1.189	.079	—	.087	.264	7,350	4,600	1.58
3AC10-1 3/4	3	1.7850/1.7750	3.5433/3.5427	1.189	1.189	.079	—	—	—	7,900	5,200	1.68
3AC10-1 3/4D1	3	1.7850/1.7750	3.5433/3.5427	1.189	1.189	.079	—	.087	.264	7,900	5,200	1.68
3AC10-1 1 5/16	3	1.9380/1.9375	3.5433/3.5427	1.189	1.189	.079	—	—	—	7,900	5,200	1.57
3AC10-1 1 5/16D1	3	1.9380/1.9375	3.5433/3.5427	1.189	1.189	.079	—	.087	.264	7,900	5,200	1.57
1AC11-2 3/16D1V1	1	2.1939/2.1880	3.9370/3.9364	.984	1.563	.098	—	.098	.299	9,750	6,550	1.92
3AC11-2 3/16	3	2.1880/2.1874	3.9370/3.9364	1.311	1.311	.098	—	—	—	9,750	6,550	2.11
3AC11-2 3/16D1	3	2.1880/2.1874	3.9370/3.9364	1.311	1.311	.098	—	.098	.299	9,750	6,550	2.11
3AC14D1	3	2.7559/2.7553	4.9213/4.9205	1.563	1.563	.098	—	.118	.370	14,000	9,900	3.44
5AC10-1 1 5/16	5	1.9380/1.9375	3.5433/3.5427	.787	1.937	.079	.079	—	—	7,900	5,200	1.62
7AC10-1 1 5/16	7	1.9380/1.9375	3.5433/3.5427	1.189	1.189	.079	.079	—	—	7,900	5,200	1.57
7AC11-2 3/16D1	7	2.1880/2.1874	3.9370/3.9364	1.311	1.311	.098	.098	.098	.299	9,750	6,550	2.11



Units: INCHES



TYPE 2...V2



TYPE 3...V2

HEX BORE BEARINGS

Bearing No.	Type	Shaft Size	Hex Bore +0.005 -0.000 H	Max. d	Max. R	Outside Diameter D	Ring Widths ±.005		r	Basic Load Ratings (lbs)		Weight (lbs)
							Be	Bi		Dynamic C	Static C _o	
1AH04-1 1/16	1	1 1/16	.695	.713	.010	1.8504/1.8499	.551	.827	.059	2,890	1,500	.289
1AH05-7/8	1	7/8	.876	.898	.010	2.0472/2.0467	.591	1.000	.059	3,150	1,770	.379
2AH05-7/8	2	7/8	.876	.898	.010	2.0472/2.0467	.591	1.000	—	3,150	1,770	.379
1AH06-1	1	1	1.001	1.028	.010	2.4409/2.4404	.630	.945	.059	4,400	2,540	.558
2AH06-1	2	1	1.001	1.028	.010	2.4409/2.4404	.630	.945	—	4,400	2,540	.558
2AH07-1 1/8	2	1 1/8	1.126	1.154	.010	2.8346/2.8341	.669	1.484	—	5,750	3,450	1.02
2AH08-1 1/4V2	2	1 1/4	1.260	1.287	.010	3.1496/3.1491	.709	1.437	—	6,550	4,000	1.28
2AH09-1 1/2	2	1 1/2	1.501	1.535	.010	3.3465/3.3459	.748	1.181	—	7,350	4,600	1.22
3AH10-1 3/8V2	3	1 3/8	1.626	1.665	.010	3.5433/3.5427	1.189	1.189	—	7,900	5,200	1.63

NTN Bearings

**TECHNICAL
INFORMATION**





TECHNICAL INFORMATION

Bearing Materials

The reliability and high capacity of NTN ball and roller bearings is the result of developments in metallurgy, manufacturing techniques, and our strict methods of quality control.

Contact surfaces of the bearing rings and rolling elements are subjected to repeated heavy stresses, yet must be able to maintain high precision and rotational accuracy. To accomplish this, the rings and rolling elements must be made of material that has high hardness, is resistant to rolling fatigue, is wear resistant and has good dimensional stability.

High carbon chromium bearing steel, which can be deep hardened, and case hardened steel with a hardened carburized outer layer are used for the rings and rolling elements of standard bearings. Case hardened steels have excellent shock resistance properties and are often used where impact loads are present.

The most common cause of fatigue cracking in bearings is the inclusion of non-metallic impurities in the bearing material. By using clean materials, the rolling fatigue life of the bearing is lengthened. For all its bearings, NTN uses steel of the highest cleanliness, and refined by a vacuum degassing process.

Bearing cage materials must have the strength to withstand rotational vibrations and shock loads. These materials must also have a low friction coefficient, be light weight, and be able to withstand bearing operating temperatures. Common cage materials are low carbon steel, bronze/brass alloy, or injection molded plastic. For additional information, please contact your NTN representative.

Handling & Installation

Improper handling practices prior to and during installation can easily damage the performance and precision built into NTN ball and roller bearings. It is necessary that certain precautions are taken to prevent such damage.

The most important factor to keep in mind when handling bearings is cleanliness. NTN bearings are assembled under immaculate conditions, then carefully packaged for protection against contamination and oxidation. A strong effort should be made to keep the bearings in this condition prior to final assembly. The bearing package should remain closed until ready for immediate installation. If it is necessary to unwrap bearings before that, they should be placed in a clean, dry area. Do not stack unpackaged bearings.

Bearings should be installed in an area where a clean atmosphere exists. Dirty conditions in the bearing installation area can easily lead to contamination and a premature failure. In addition, assembly benches and tools must be kept clean to prevent contaminants such as dust, grit and steel chips from entering the bearing. It is much easier to keep a bearing clean than it is to wash it clean enough for service.

The shaft, housing and other machine elements should be cleaned and inspected prior to bearing installation. The bearing mounting must be properly designed from a functional standpoint, and must have correct shaft and housing fits and shoulder heights. The design should be such that the bearings can be installed as easily as possible.

Proper assembly procedures and tools such as arbor presses, pullers, and sleeves will not only facilitate assembly, but will also avoid damage to the bearings. When a bearing is pressed on a shaft, the inner ring must be started squarely. A “cocked” ring may score the shaft and damage the bearing. The pressure must be applied directly on the ring being mounted. The bearing must not be tapped in place with direct blows on the bearing ring. The preferred practice is to place a sleeve between the bearing ring and the hammer and to tap the sleeve lightly all around. (illustration A)

Sometimes a larger size bearing must be heated so that it can be more easily assembled on a shaft. A convenient method of doing this is to insert a heat source

such as a light bulb in the bore of the bearing, avoiding direct contact until the inner ring has expanded sufficiently. Another method is to heat the bearing in a bath of hot oil. The oil must be clean, and the temperature should not exceed 250° F. Higher temperatures may cause the oil to decompose and the bearing to lose its proper hardness.

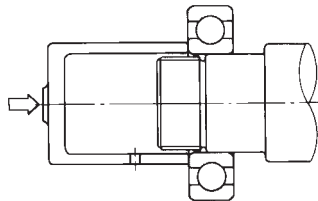


Fig. 15.1 Press mounting of inner ring

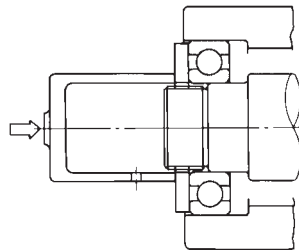


Fig. 15.2 Press mounting of inner and outer rings simultaneously

Illustration A

Running Test

After mounting, a running test should be performed to ensure that the bearing has been properly installed. The shaft or housing is first rotated by hand. If no problems are observed, a low speed, no load power test is performed. If no abnormalities are detected at this point, the load and speed are gradually increased to operating conditions. If any unusual noise, vibration or temperature rise is observed during the test, the procedure should be stopped and the installation examined.

Under normal conditions, bearing temperature rises with rotation and then reaches a stable operating temperature. If the temperature continues to rise and does not level off, or if there is a sudden temperature rise, or if the temperature is unusually high, the bearing should be inspected.

Dismounting

Bearings are often removed as part of periodic inspection procedures, or during the replacement of other parts. The shaft and housing are almost always reinstalled, and the bearings themselves are often reused. Because of this, the same guidelines for cleanliness in mounting apply to dismounting. (illustration B)

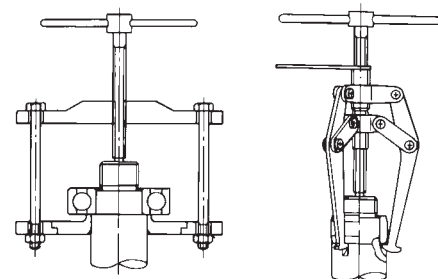


Fig. 15.12 Puller dismounting

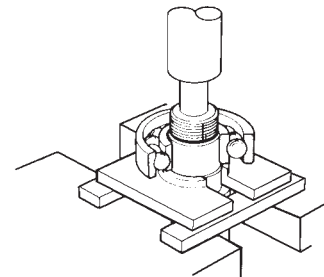


Fig. 15.13 Press dismounting

Illustration B



TECHNICAL INFORMATION

Lubrication

Bearing lubricants are of two basic types: oil or grease. The purpose of bearing lubrication is to prevent direct metal to metal contact between the various rolling and sliding elements. This is accomplished through the formation of a thin film on the contact surfaces, and is necessary for the following reasons:

- Friction and wear reduction
- Dissipation of heat generated within the bearing
- Prolonged bearing life
- Prevention of rust
- Protection from foreign material entering bearing

Grease lubricants are composed of either a mineral oil base or a synthetic oil base combined with a thicken-

ing agent. Grease type lubricants are relatively easy to handle, and require only the simplest sealing devices. A suitable grease should remain mechanically and chemically stable at operating temperature. It should not thicken, harden, separate, or become acid or alkaline to any marked degree.

Oil consists of either petroleum fluids refined from crude oil or synthetic fluids produced by chemical synthesis. Generally, oil lubrication is better suited for high speed and high temperature applications than grease lubrication. Oil lubrication is especially effective for those applications requiring the bearing generated heat (or heat applied to the bearing from other sources) to be dissipated. For additional lubrication information, please contact your NTN representative.

COMMON GREASE CODES AND NAMES

NTN Code	Brand	Military Specs.	Temp. Range	Thickener	Oil
2A	Shell Alvania 2	MIL-G-18709A	-30° F to +230° F	Lithium	Petroleum
9B	Mobil 28	MIL-G-81322	-80° F to +350° F	Synthetic	Synthetic
5C	Chevron SRI-2	MIL-G-3545C	-20° F to +350° F	Polyurea	Petroleum
1D	LX40 (DuPont Krytox 240AB)	MIL-G-38220	-40° F to +450° F	Fluorotelomer	Fluorotelomer
1E	Exxon Andok C	—	-30° F to +250° F	Sodium	Petroleum
3E	Exxon Beacon 325	MIL-G-3278A	-60° F to +250° F	Lithium	Diester
4E	Exxon Andok 260	MIL-G-3545	-20° F to +275° F	Sodium	Petroleum
4M	Dow-Corning DC 44M	MIL-G-15719A	-40° F to +400° F	Lithium	Silicone
5S	Shell Aero Shell 7	MIL-G-23827A	-100° F to +250° F	Microgel	Diester
3W	Texaco Regal AFB 2	MIL-G-24139	-30° F to +230° F	Lithium	Petroleum

ANALYSIS OF BEARING OPERATING PROBLEMS

The following table lists some common types of bearing operating problems, probable causes, and suggested corrective measures. If these suggestions do not correct the trouble, call your **NTN** Representative for assistance.



TECHNICAL INFORMATION

Trouble	Observed Characteristic	Probable Cause	Corrective Action
NOISE	High pitch, steady tone	Excessive axial load	Correct outer ring fit in housing and/or shoulder location to allow thermal expansion.
		Excessive radial load	Use correct fit of inner ring on shaft. For radial bearings, use bearing with greater internal clearance. For pre-loaded paired bearings, use lighter preload.
		Misalignment	Correct alignment.
	Low pitch, continuous or intermittent	Too much clearance in bearing	Use correct shaft fit. For radial bearings, use bearing with less internal clearance. For preloaded paired bearings, use heavier preload.
		Bearing brinelled	Replace bearing, avoid brinelling.
		Raceways pitted due to dirt	Wash all parts, replace with new bearing, use clean lubricant, improve seals.
		Resonant vibration of machine structure	Stiffen or sound-deaden thin panels and large flat surfaces.
	Intermittent squeal or high pitch noise	Balls skidding	Provide thrust preload spring. Use thinner grease. For radial bearings, use bearing with less internal clearance. For preloaded paired bearings, check for correct preload.
		Shaft rubbing housing	Correct seals and machine parts.
	Intermittent rumbles, rattles, clicks, etc.	Too much clearance in bearing	Correct shaft fit. For radial bearings, use adjusting spring or bearing with less internal clearance. For preloaded paired bearings, check for correct preload.
		Dirt in bearing	Wash all parts, replace with new bearing if necessary, use clean lubricant, improve seals.
		Loose machine parts	Tighten all fans, pulleys, closures, spacers, slingers etc.
TEMPERATURE	High after first start	Grease redistribution	Allow machine to cool. Restart.
	Continuously high during operation	Churning of lubricant	Use lower oil level, less grease, stiffer grease.
		No lubricant	Add lubricant.
		Excessive axial load	Check outer ring fit in housing and/or shoulder location to allow thermal expansion.
		Excessive radial load	Use correct fit of inner ring on shaft. For radial bearings, use bearing with greater internal clearance. For preloaded paired bearings, use lighter preload.
		Bearing misaligned	Correct machine parts and alignment procedures.
		Excessive seal drag	Use different type of seal.



TECHNICAL INFORMATION

Trouble	Observed Characteristic	Probable Cause	Corrective Action
EXCESSIVE VIBRATION	During acceleration or deceleration periods	Critical speeds of machine components	Stiffen shaft or other machine components to avoid critical speeds.
	During operation at fixed speeds	Unbalanced rotating parts	Dynamically balance rotating parts.
		Shaft bent	Straighten and re-balance.
		Cams, gears, linkage	Adjust, improve or redesign.
		Misalignment	Correct machine parts.
		Bearing brinelled	Replace bearing, avoid brinelling.
RUNOUT	Shaft does not run true. Shaft binds when rotated by hand.	Shaft bent	Straighten shaft and re-balance.
		Bearing misaligned	Correct machine parts and alignment procedures.
		Bearing rings out of square	Check squareness of shaft and housing shoulders, spacers and flingers, etc.
		Dirt	Wash all parts, replace with new bearing if necessary, use clean lubricant, improve seals.
		Machine deflection	Stiffen machine members.
INNER RING WEARS LOOSE ON SHAFT	Wear of the shaft seat	Incorrect shaft fit	Use recommended shaft fit.
		Poor shaft finish	Smooth turn or grind shaft to size after metalspraying or chrome plating.
OUTER RING WEARS LOOSE IN HOUSING	Wear in housing bore	Housing fit too loose	Use recommended housing fit.
		Unbalanced forces	Dynamically balance rotating parts. Clamp outer ring faces. Use cylindrical roller bearing and press fit outer and inner rings.
		Poor finish	Bore or grind housing I.D. oversize, press in a bushing and finish bore or grind to size.
		Soft housing material	Use steel liners. Work-harden bore.

NTN Bearings

Tolerance Tables and Interchange Data



TOLERANCES

Definitions pertaining to tolerance limits for boundary dimensions, various runouts, and internal clearance are given in AFBMA Standard 4, ANSI B3.4: *Tolerance Definitions and Gaging Practice*. The tolerance limits listed in this Standard refer exclusively to these concepts.

SYMBOLS COMMON TO RADIAL BEARINGS AND THRUST BEARINGS

d	=	Basic bore diameter
D	=	Basic outside diameter
V_{dp}	=	Single radial plane bore diameter variation
V_{Dp}	=	Single radial plane outside diameter variation
$r_{a\ max}$	=	Largest shaft and housing fillets which the bearing chamfer must clear
r_s	=	Single chamfer dimension of a ring
$r_{s\ min}$	=	Low limit of r
$r_{s\ max}$	=	High limit of r

SYMBOLS APPLICABLE TO RADIAL BEARINGS

B	=	Basic width of an individual inner ring; also of an individual outer ring when both rings have the same basic width
B_s	=	Single width of an inner ring; also that of an outer ring when both rings have the same basic width
V_{dmp}	=	Mean single plane bore diameter variation
V_{Dmp}	=	Single plane mean outside diameter deviations
K_I	=	Radial runout of an inner ring raceway
K_e	=	Radial runout of an outer ring raceway
S_d	=	Reference side runout with bore of an inner ring
S_D	=	Outside cylindrical surface runout with reference side of an outer ring
S_{ia}	=	Assembled bearing inner ring (or cone back face) runout with raceway
S_{ea}	=	Assembled bearing outer ring (or cup back face) runout with raceway
V_{Bs}	=	Width variation of an inner ring; also that of an outer ring when both rings have the same basic width

SYMBOLS APPLICABLE TO SINGLE DIRECTION THRUST BEARINGS

H	=	Basic bearing height
H_m	=	Actual bearing height
A_i	=	Raceway runout with flat seat face of shaft washer
A_e	=	Raceway runout with flat seat face of housing washer

TOLERANCE CLASS ABEC-1, RBEC-1

Tolerance limits for:

Metric ball and roller bearings (except tapered roller bearings) conforming to basic boundary plans.



Table 1 (Tolerance Limits in 0.0001 inch)

INNER RING																
BASIC BORE DIAMETER <i>d</i>				BORE ❶ Allowable Deviations			SINGLE RADIAL PLANE BORE DIAMETER VARIATION <i>V_{dp}</i>			SINGLE PLANE MEAN BORE DIAMETER DEVIATIONS <i>V_{dmp}</i>		RADIAL RUNOUT	WIDTH Allowable Deviations from <i>B</i>			
mm		inch		<i>d_{mp}</i>			Diameter Series			Max.		<i>K_{ia}</i> Max.	Normal Single Bearings		Modified ❷ Single Bearings	
Over	Incl.	Over	Incl.	Low	High	0.1	Max.	2,3,4			High		<i>B_s</i> Low	High	<i>B_s</i> Low	
2.5	10	.0984	.3937	-3	+0	3	2.5		2.5	3	+0	-50	+0	-100		
10	18	.3937	.7087	-3	+0	3	2.5		2.5	4	+0	-50	+0	-100		
18	30	.7087	1.1811	-4	+0	3	2.5		2.5	5	+0	-50	+0	-100		
30	50	1.1811	1.9685	-5	+0	4	3		3	6	+0	-50	+0	-100		
50	80	1.9685	3.1496	-6	+0	4.5	3.5		3.5	8	+0	-60	+0	-150		
80	120	3.1496	4.7244	-8	+0	7.5	4.5		4.5	10	+0	-80	+0	-150		
120	180	4.7244	7.0866	-10	+0	10	6		6	12	+0	-100	+0	-200		
180	250	7.0866	9.8425	-12	+0	12	7.5		7.5	16	+0	-120	+0	-200		
250	315	9.8425	12.4015	-14	+0	15	9		9	20	+0	-140	+0	-200		
315	400	12.4015	15.7480	-16	+0	17	10		10	24	+0	-160	+0	-250		
400	500	15.7480	19.6850	-18	+0	20	12		12	26	+0	-180	—	—		
500	630	19.6850	24.8031	-20	+0	22	13		13	28	+0	-200	—	—		
630	800	24.8031	31.4961	-30	+0	25	15		15	32	+0	-300	—	—		
800	1000	31.4961	39.3701	-40	+0	—	—		—	35	+0	-400	—	—		
1000	1250	39.3701	49.2126	-50	+0	—	—		—	—	+0	-500	—	—		
1250	1600	49.2126	62.9921	-60	+0	—	—		—	—	+0	-600	—	—		
1600	2000	62.9921	78.7402	-80	+0	—	—		—	—	+0	-800	—	—		

OUTER RING													
BASIC OUTSIDE DIAMETER <i>D</i>				SINGLE RADIAL PLANE OUTSIDE DIAMETER VARIATION <i>V_{Dp}</i> ❸						SINGLE PLANE MEAN OUTSIDE DIAMETER VARIATION <i>V_{Dmp}</i> ❸		RADIAL RUNOUT	WIDTH LIMITS
mm		inch		All Bearings			Open Bearings		Bearings with Shields or Seals ❹		Max.	<i>K_{ea}</i> Max.	
Over	Incl.	Over	Incl.	High	<i>V_{dmp}</i> Low	0.1	2,3,4	2,3,4					
6	18	.2362	.7087	+0	-3	3	2.5	4	4.5	2.5	6	Identical	
18	30	.7087	1.1811	+0	-4	3.5	3	3	3	3	8		
30	50	1.1811	1.9685	+0	-5	4.5	3	3	6.5	3	6		
50	80	1.9685	3.1496	+0	-5	5	4	8	4	4	10	to those	
80	120	3.1496	4.7244	+0	-6	7.5	4.5	10	4.5	4.5	14		
120	150	4.7244	5.9055	+0	-8	9	5.5	12	5.5	5.5	16		
150	180	5.9055	7.0866	+0	-10	12	7.5	15	7.5	7.5	18	of inner	
180	250	7.0866	9.8425	+0	-12	15	9	—	9	9	20		
250	315	9.8425	12.4015	+0	-14	17	10	—	10	10	24		
315	400	12.4015	15.7480	+0	-16	20	12	—	12	12	28	ring of	
400	500	15.7480	19.6850	+0	-18	22	13	—	13	13	32		
500	630	19.6850	24.8031	+0	-20	25	15	—	15	15	40		
630	800	24.8031	31.4961	+0	-30	37	22	—	22	22	47	the same bearing	
800	1000	31.4961	39.3701	+0	-40	49	30	—	30	30	55		
1000	1250	39.3701	49.2126	+0	-50	—	—	—	—	—	64		
1250	1600	49.2126	62.9921	+0	-65	—	—	—	—	—	76		
1600	2000	62.9921	78.7402	+0	-80	—	—	—	—	—	90		
2000	2500	78.7402	98.4252	+0	-100	—	—	—	—	—	—		

- ❶ Bore tolerance limits do not apply to tapered bore inner rings.
- ❷ This refers to a ball bearing on which one or both sides are modified so two or more bearings can be mounted side by side as a unit.
- ❸ Applies before mounting and after removal of internal or external snap ring.
- ❹ No values have been established for diameter series 0 and 1.



TOLERANCE CLASS ABEC-5, RBEC-5

Tolerance limits for:

Metric ball and roller bearings (except instrument bearings^① and tapered roller bearings) conforming to basic boundary plans.

Table 2 (Tolerance Limits in 0.0001 inch)

INNER RING																		
BASIC BORE DIAMETER <i>d</i>				BORE ^②		SINGLE RADIAL PLANE BORE DIAMETER VARIATION V_{dp}		SINGLE PLANE MEAN BORE DIAMETER DEVIATIONS V_{dmp}	RUNOUT			WIDTH						
				Allowable Deviations from <i>d</i>		All Bearings			Bearings of Diameter Series		Radial	Reference Side With Bore	Raceway ^③ With Reference Side	Normal Single Bearings B_s		Modified Single Bearings B_s		Variation of B_s in Individual Ring V_{Bs}
				Over	Incl.	Low	High		4,3,2,1,0	9,8	K_{ia} Max.	S_d Max.	S_{ia} Max.	High	Low	High	Low	
.6	10	.0236	.3937	-2	+0	2	1.5	1	1.5	3	3	+0	-16	+0	-100	2		
10	18	.3937	.7087	-2	+0	2	1.5	1	1.5	3	3	+0	-32	+0	-100	2		
18	30	.7087	1.1811	-2	+0	2.5	2	1	1.5	3	3	+0	-50	+0	-100	2		
30	50	1.1811	1.9685	-2	+0	3	2.5	1.5	2.0	3	3	+0	-50	+0	-100	2		
50	80	1.9685	3.1496	-3	+0	3.5	3	2	2.0	3	3	+0	-60	+0	-100	2		
80	120	3.1496	4.7244	-3	+0	4	3	2	2.5	3	4	+0	-80	+0	-150	3		
120	180	4.7244	7.0866	-4	+0	5	4	3	3.0	4	4	+0	-100	+0	-150	3		
180	250	7.0866	9.8425	-5	+0	6	4.5	3	4.0	4	5	+0	-120	+0	-200	4		
250	315	9.8425	12.4015	-5	+0	7	5.5	3.5	5.0	5	6	+0	-140	+0	-200	5		
315	400	12.4015	15.7480	-6	+0	9	7	4.5	5.0	5	7	+0	-160	+0	-250	5		

OUTER RING													
BASIC OUTSIDE DIAMETER <i>D</i>				SINGLE RADIAL PLANE OUTSIDE DIAMETER VARIATION V_{dp} ^⑦					RUNOUT			WIDTH	
				All Bearings		Open Bearings		Bearings with Shields or Seals ^⑤ Diameter Series	Radial	Cylindrical Surface with Reference Side ^⑥	Raceway with Reference Side ^③	Limits	Variation of B_s in Individual Ring V_{Bs}
				Bearings of Diameter Series		7,8,9	0,1,2,3,4							4,3,2,1,0
Over	Incl.	Over	Incl.	High	Low	Max	Max	K_{ea} Max.	S_D Max.	S_{ea} Max.			
2.5	6	.0984	.2362	+0	-2	2	1.5	1	2	3	3	Identical	2
6	18	.2362	.7087	+0	-2	2	1.5	1	2	3	3		2
18	30	.7087	1.1811	+0	-2	2.5	2	1	2	3	3	to those	2
30	50	1.1811	1.9685	+0	-2	3	2	1.5	2	3	3		2
50	80	1.9685	3.1496	+0	-3	3.5	3	2	3	3	4		2
80	120	3.1496	4.7244	+0	-3	4	3	2	4	3	5	of inner	3
120	150	4.7244	5.9055	+0	-4	4.5	3	2.5	4	4	5		3
150	180	5.9055	7.0866	+0	-5	5	4	3	5	4	6	ring of	3
180	250	7.0866	9.8425	+0	-5	6	4.5	3	5	4	6		4
250	315	9.8425	12.4015	+0	-5	7	5.5	3.5	6	5	7	the same	5
315	400	12.4015	15.7480	+0	-6	8	6	4	7	5	8		5
400	500	15.7480	19.6850	+0	-7	9	6.5	4.5	8	6	9		6
500	630	19.6850	24.8031	+0	-8	11	8.5	5.5	9	6	10	bearing	6

① For Instrument Ball Bearing tolerances see AFBMA Standard 12, ANSI B3.10.

② Bore tolerance limits do not apply to tapered bore inner rings.

③ Does not apply to roller bearings or self-aligning ball bearings.

④ This refers to a ball bearing on which one or both sides are modified so two or more bearings can be mounted side by side as a unit.

⑤ For bearings with shields or seals of diameter series 9 and 8, D_s is not restricted.

⑥ Applies to bearings of width series 1 or narrower.

⑦ No values have been established for capped bearings.

TOLERANCE CLASS ABEC-7

Tolerance limits for:

Metric radial and angular contact ball bearings (except instrument bearings❶).



Table 3 (Tolerance Limits in 0.0001 inch)

INNER RING																
BASIC BORE DIAMETER <i>d</i>				SINGLE PLANE MEAN OUTER DIAMETER DEVIATION Basic Bearings		SINGLE RADIAL PLANE BORE DIAMETER VARIATION <i>V_{dp}</i> Bearings of Diameter Series		SINGLE PLANE MEAN BORE DIAMETER DEVIATIONS <i>V_{dmp}</i>	RUNOUT			WIDTH				
mm		inch		<i>d_{mp}</i>		7,8,9	0,1,2,3,4		Radial	Reference Side With Bore	Raceway❷ With Reference Side	Allowable Deviations from <i>B_s</i>		Modified Single Bearings <i>B_s</i>		Variation of <i>B_s</i> in Individual Ring <i>V_{Bs}</i>
Over	Incl.	Over	Incl.	Low	High	Max	Max	Max	<i>K_{ia}</i> Max.	<i>S_d</i> Max.	<i>S_{ia}</i> Max.	High	Low	High	Low	Max.
.6	10	.0236	.3937	-1.5	+0	1.5	1	1	1.0	1.0	1.0	+0	-16	+0	-100	1.0
10	18	.3937	.7087	-1.5	+0	1.5	1	1	1.0	1.0	1.0	+0	-32	+0	-100	1.0
18	30	.7087	1.1811	-1.5	+0	2	1.5	1	1.0	1.5	1.5	+0	-50	+0	-100	1.0
30	50	1.1811	1.9685	-2.0	+0	2.5	2	1	1.5	1.5	1.5	+0	-50	+0	-100	1.0
50	80	1.9685	3.1496	-2.0	+0	3	2	1.5	1.5	2.0	1.5	+0	-60	+0	-100	1.5
80	120	3.1496	4.7244	-2.5	+0	3	2.5	1.5	2.0	2.0	2.0	+0	-80	+0	-150	1.5
120	180	4.7244	7.0866	-3.0	+0	4	3	2	3.0	3.0	3.0	+0	-100	+0	-150	2.0
180	250	7.0866	9.8425	-4.0	+0	4.5	3.5	2.5	3.0	3.0	3.0	+0	-120	+0	-200	2.0
250	315	9.8425	12.4015	-5.0	+0	—	—	—	4.0	4.0	4.0	+0	-140	+0	-200	3.0

OUTER RING															
BASIC OUTSIDE DIAMETER <i>D</i>				SINGLE RADIAL PLANE OUTSIDE DIAMETER VARIATION <i>V_{Dp}</i> ❸					RUNOUT			WIDTH			
mm		inch		<i>V_{dmp}</i>		Open Bearings		Bearings with Shields or Seals of Diameter Series	Radial	Cylindrical Surface with Reference Side	Raceway with Reference Side	Limits	Variation of <i>B_s</i> in Individual Ring		
Over	Incl.	Over	Incl.	High	Low	7,8,9	0,1,2,3,4	4,3,2,1,0	<i>K_{ea}</i> Max.	<i>S_D</i> Max.	<i>S_{ea}</i> Max.		<i>V_{Bs}</i> Max.		
2.5	6	.0984	.2362	+0	-2	1.5	1	1	2		1	Identical	1		
6	18	.2362	.7087	+0	-2	1.5	1	1	1.5	1.5	2	to those	1		
18	30	.7087	1.1811	+0	-2	2	1.5	1	1.5	1.5	2		1		
30	50	1.1811	1.9685	+0	-2	2.5	2	1	2.0	1.5	2	of inner	1		
50	80	1.9685	3.1496	+0	-2	3	2	1.5	2.0	1.5	2		1		
80	120	3.1496	4.7244	+0	-3	3	2.5	1.5	2.0	2.0	2	ring of	2		
120	150	4.7244	5.9055	+0	-4	3.5	3	2	3.0	2.0	3		2		
150	180	5.9055	7.0866	+0	-4	4	3	2	3.0	2.0	3	the same	2		
180	250	7.0866	9.8425	+0	-4	4.5	3	2.5	4.0	3.0	4		3		
250	315	9.8425	12.4015	+0	-5	5	4	3	4.0	3.0	4	the same	3		
315	400	12.4015	15.7480	+0	-5	6	4.5	3	5.0	4.0	5		3		
400	500	15.7480	19.6850	+0	-6	—	—	—	5.0	4.0	5	bearing	4		

- ❶ For Instrument Ball Bearing tolerances see AFBMA Standard 12, ANSI B3.10.
- ❷ Does not apply to self-aligning ball bearings.
- ❸ This refers to a ball bearing on which one or both sides are modified so two or more bearings can be mounted side by side as a unit.
- ❹ For bearings with shields or seals of diameter series 9 and 8, *D_s* is not restricted.
- ❺ Applies to bearings of width series 1 or narrower.
- ❻ No values have been established for capped bearings.



TOLERANCE CLASS ABEC-9

Tolerance limits for:

Metric radial and angular contact ball bearings (except instrument bearings ⑤).

Table 4 (Tolerance Limits in 0.0001 inch)

INNER RING													
BASIC BORE DIAMETER <i>d</i>				SINGLE RADIAL PLANE BORE DIAMETER VARIATION <i>V_{dp}</i>	SINGLE PLANE MEAN BORE DIAMETER DEVIATIONS <i>V_{dmp}</i>	RUNOUT			WIDTH				Variation of <i>B_s</i> in Individual Ring <i>V_{Bs}</i> Max.
						Radial	Reference Side With Bore	Raceway With Reference Side ②	Allowable Deviations from <i>B</i>		Normal Single Bearings <i>B_s</i>	③ Modified Single Bearings <i>B_s</i>	
Over	Incl.	Over	Incl.	Max	Max	<i>K_{ra}</i> Max.	<i>S_d</i> Max.	<i>S_{ra}</i> Max.	High	Low		High	Low
.6	10	.0236	.3937	1	.5	.5	.5	.5	+0	-10	+0	-100	.5
10	18	.3937	.7087	1	.5	.5	.5	.5	+0	-32	+0	-100	.5
18	30	.7087	1.1811	1	.5	1.0	.5	1.0	+0	-50	+0	-100	.5
30	50	1.1811	1.9685	1	.5	1.0	.5	1.0	+0	-50	+0	-100	.5
50	80	1.9685	3.1496	1.5	1	1.0	.5	1.0	+0	-60	+0	-100	.5
80	120	3.1496	4.7244	2	1	1.0	1.0	1.0	+0	-80	+0	-150	1.0
120	150	4.7244	5.9055	3	1.5	1.0	1.0	1.0	+0	-100	+0	-150	1.0
150	180	5.9055	7.0866	3	1.5	2.0	1.5	2.0	+0	-120	+0	-200	1.5
180	250	7.0866	9.8425	3	1.5	2.0	1.5	2.0	+0	-140	+0	-200	1.5

OUTER RING													
BASIC OUTSIDE DIAMETER <i>D</i>				SINGLE RADIAL PLANE OUTSIDE DIAMETER VARIATION		RUNOUT			WIDTH		Variation of <i>B_s</i> in Individual Ring <i>V_{Bs}</i> Max.		
						Radial	Outside Cylindrical Surface with Reference Side ①	Raceway with Reference Side ②	Limits				
Over	Incl.	Over	Incl.	<i>V_{Dp}</i> ⑥	<i>V_{dmp}</i>	<i>K_{ea}</i> Max.	<i>S_D</i> Max.	<i>S_{ea}</i> Max.					
2.5	18	.0984	.7087	1	.5	.5	.5	.5	Identical to	.5			
18	30	.7087	1.1811	1.5	1	1.0	.5	1.0		.5			
30	50	1.1811	1.9685	1.5	1	1.0	.5	1.0		.5			
50	80	1.9685	3.1496	1.5	1	1.5	.5	1.5	those of	.5			
80	120	3.1496	4.7244	2	1	2.0	1.0	2.0		1.0			
120	150	4.7244	5.9055	2	1	2.0	1.0	2.0	inner ring	1.0			
150	180	5.9055	7.0866	3	1.5	2.0	1.0	2.0		1.0			
180	250	7.0866	9.8425	3	1.5	2.5	1.5	2.5	of the same	1.5			
250	315	9.8425	12.4015	3	1.5	2.5	1.5	2.5		1.5			
315	400	12.4015	15.7480	4	2	3.0	2.5	3.0	bearing	2.5			

① Applies to bearings of metric width series 1 or narrower.

② Does not apply to self-aligning ball bearings.

③ This refers to a ball bearing on which one or both sides are modified so two or more bearings can be mounted side by side as a unit.

④ These limits apply before seals or shields are inserted.

⑤ For Instrument Ball Bearing tolerances see AFBMA Standard 12, ANSI B3.10.

⑥ No values have been established for capped bearings.

Tolerance Limits for Dimensions and Runout.

There is only one class of tolerances established for thrust ball bearings.

They conform with those adopted by ISO (ISO Recommendation R199).

Tolerance Limits for:

Metric single direction thrust ball bearings (of dimensions conforming to the basic plan for boundary dimensions of single direction, metric thrust bearings).



Table 5 (Tolerance Limits in 0.0001 inch)

THRUST BALL BEARINGS															
BASIC BORE DIAMETER				SHAFT WASHER		BOTH INDIVIDUAL WASHERS	BEARING HEIGHT		BASIC OUTSIDE DIAMETER				HOUSING WASHER		
<i>d</i>				Allowable Deviations from <i>d</i>		Raceway Runout with Flat Seat Face	Allowable Deviations from <i>H</i>		<i>D</i>				Allowable Deviations from <i>D</i>		
mm		inch		<i>d_s</i>		<i>A₁, A₂</i>	<i>H_m</i>		mm		inch		<i>D_s</i>		
Over	Incl.	Over	Incl.	Low	High	Max.	High	Low	Over	Incl.	Over	Incl.	High	Low	
0	18	.0000	.7087	- 3	+ 2	4	+ 0	- 30	10	18	.3937	.7087	+ 0	- 4	
18	30	.7087	1.1811	- 4	+ 3	4	+ 0	- 30	18	30	.7087	1.1811	+ 0	- 5	
30	50	1.1811	1.9685	- 5	+ 4	4	+ 0	- 39	30	50	1.1811	1.9685	+ 0	- 6	
50	80	1.9685	3.1496	- 6	+ 5	4	+ 0	- 49	50	80	1.9685	3.1496	+ 0	- 7	
80	120	3.1496	4.7244	- 8	+ 6	6	+ 0	- 59	80	120	3.1496	4.7244	+ 0	- 9	
120	180	4.7244	7.0866	- 10	+ 7	6	+ 0	- 69	120	180	4.7244	7.0866	+ 0	- 10	
180	250	7.0866	9.8425	- 12	+ 9	8	+ 0	- 79	180	250	7.0866	9.8425	+ 0	- 12	
250	315	9.8425	12.4015	- 14	+ 10	10	+ 0	- 89	250	315	9.8425	12.4015	+ 0	- 14	
315	400	12.4015	15.7480	- 16	+ 11	12	+ 0	- 118	315	400	12.4015	15.7480	+ 0	- 16	
400	500	15.7480	19.6850	- 18	+ 13	12	—	—	400	500	15.7480	19.6850	+ 0	- 18	
500	630	19.6850	24.8031	- 20	+ 14	14	—	—	500	630	19.6850	24.8031	+ 0	- 20	
630	800	24.8031	31.4961	- 30	+ 15	16	—	—	630	800	24.8031	31.4961	+ 0	- 30	
800	1000	31.4961	39.3701	- 40	+ 17	18	—	—	800	1000	31.4961	39.3701	+ 0	- 40	
1000	1250	39.3701	49.2126	- 49	+ 19	20	—	—	1000	1250	39.3701	49.2126	+ 0	- 49	
									1250	1600	49.2126	62.9921	+ 0	- 59	



Tolerance Limits for:
Metric series tapered roller bearings.

Table 6 (Tolerance Limits in 0.001 mm)

INNER RING																									
Bore Diameter <i>d</i> nominal		Bore Diameter												Width <i>B</i> Deviations (Inner Ring)				Bearing Width <i>T</i> Deviations (Overall)				Radial Run-Out <i>Ri</i> Maximum			
		<i>dm</i> ① Deviations						<i>d</i> ② Deviations						Class 0,6,5		Class 4		Class 0		Class 6,5,4		Class			
		Class 0 KB ③		Class 6,5		Class 4		Class 0 KB ③		Class 6,5		Class 4		High	Low	High	Low	High	Low	High	Low	High	Low	0	6	5	4
Over	Incl.	High	Low	High	Low	High	Low	Max.	Min.	Max.	Min.	Max.	Min.	High	Low	High	Low	High	Low	High	Low	0	6	5	4
10	18	0	-8	0	-7	0	-5	+3	-11	+1	-8	0	-5	0	-200	0	-200	+200	-200	+200	0	15	7	3.5	2.5
18	30	0	-10	0	-8	0	-6	+3	-13	+1	-9	0	-6	0	-200	0	-200	+200	-200	+200	0	18	8	4	3
30	50	0	-12	0	-10	0	-8	+3	-15	+1	-11	0	-8	0	-240	0	-240	+200	-200	+200	0	20	10	5	4
50	80	0	-15	0	-12	0	-9	+4	-19	+2	-14	0	-9	0	-300	0	-300	+200	-200	+200	0	25	10	5	4
80	120	0	-20	0	-15	0	-10	+5	-25	+3	-18	0	-10	0	-400	0	-400	+300	-300	+200	-200	30	13	6	5
120	180	0	-25	0	-18	0	-13	+6	-31	+3	-21	0	-13	0	-500	0	-500	+400	-400	+350	-250	35	18	8	6
180	250	0	-30	0	-22	0	-15	+8	-38	+4	-26	0	-15	0	-600	0	-600	+500	-500	+350	-250	50	20	10	8
250	315	0	-35	—	—	—	—	+9	-44	—	—	—	—	0	-700	—	—	+600	-600	—	—	60	—	—	—
315	400	0	-40	—	—	—	—	+10	-50	—	—	—	—	0	-800	—	—	+700	-700	—	—	70	—	—	—

Table 6-A (Tolerance Limits in 0.0001 inch)

INNER RING																									
Bore Diameter <i>d</i> nominal		Bore Diameter												Width <i>B</i> Deviations (Inner Ring)				Bearing Width <i>T</i> Deviations (Overall)				Radial Run-Out <i>Ri</i> Maximum			
		<i>dm</i> ① Deviations						<i>d</i> ② Deviations						Class 0,6,5		Class 4		Class 0		Class 6,5,4		Class			
		Class 0 KB ③		Class 6,5		Class 4		Class 0 KB ③		Class 6,5		Class 4		High	Low	High	Low	High	Low	High	Low	High	Low	0	6	5	4
Over	Incl.	High	Low	High	Low	High	Low	Max.	Min.	Max.	Min.	Max.	Min.	High	Low	High	Low	High	Low	High	Low	0	6	5	4
.3937	.7087	0	-3.1	0	-2.8	0	-2.0	+1.2	-4.3	+4	-3.1	0	-2.0	0	-78.7	0	-78.7	+78.7	-78.7	+78.7	0	5.9	2.8	1.4	1.0
.7087	1.1811	0	-3.9	0	-3.1	0	-2.4	+1.2	-5.1	+4	-3.5	0	-2.4	0	-78.7	0	-78.7	+78.7	-78.7	+78.7	0	7.1	3.1	1.6	1.2
1.1811	1.9685	0	-4.7	0	-3.9	0	-3.1	+1.2	-5.9	+4	-4.3	0	-3.1	0	-94.5	0	-94.5	+78.7	-78.7	+78.7	0	7.9	3.9	2.0	1.6
1.9685	3.1496	0	-5.9	0	-4.7	0	-3.5	+1.6	-7.5	+8	-5.5	0	-3.5	0	-118.1	0	-118.1	+78.7	-78.7	+78.7	0	9.8	3.9	2.0	1.6
3.1496	4.7244	0	-7.9	0	-5.9	0	-3.9	+2.0	-9.8	+1.2	-7.1	0	-3.9	0	-157.5	0	-157.5	+118.1	-118.1	+78.7	-78.7	11.8	5.1	2.4	2.0
4.7244	7.0866	0	-9.8	0	-7.1	0	-5.1	+2.4	-12.2	+1.2	-8.3	0	-5.1	0	-196.9	0	-196.9	+157.5	-157.5	+137.8	-98.4	13.8	7.1	3.1	2.4
7.0866	9.8425	0	-11.8	0	-8.7	0	-5.9	+3.1	-15.0	+1.6	-10.2	0	-5.9	0	-236.2	0	-236.2	+196.5	-196.5	+137.8	-98.4	19.7	7.9	3.9	3.1
9.8425	12.4016	0	-13.8	—	—	—	—	+3.5	-17.3	—	—	—	—	0	-275.6	—	—	+236.2	-236.2	—	—	23.6	—	—	—
12.4016	15.7480	0	-15.7	—	—	—	—	+3.9	-19.7	—	—	—	—	0	-315.0	—	—	+275.6	-275.6	—	—	27.6	—	—	—

① *dm* is defined as the arithmetical mean of the largest and the smallest single diameter of the bore obtained by two-point measurements.

② The values of deviation of *d* are valid for two-point measurements only.

Deviations of *d* for Class 0 apply only to diameter series 0, 2 and 3, and do not apply to either of the following cases: over 40 mm of *d* in diameter series 0, or over 180 mm of *d* in diameter series 2.

Deviations of *d* for Class 6 apply only to diameter series 0, 2 and 3, and do not apply to the case of over 60 mm of *d* in diameter series 0.

Deviations of *d* for Class 5 apply only to diameter series 0, 2 and 3.

③ KB is the symbol for limit deviations of *dm* and *d* for Class 0.

REMARKS:

The high deviations of bore diameter specified in this table do not apply within a distance of twice the nominal ring chamfer dimension from the ring face.

Table 7 (Tolerance Limits in 0.001 mm)

OUTER RING																	
Outside Diameter <i>D</i> Nominal mm		BEARING OUTSIDE DIAMETER												Radial Run-Out Re Max.			
		<i>D_m</i> ^④ Deviations						<i>D</i> ^⑥ Deviations									
		Class O hB ^⑤ High	Class O hB ^⑤ Low	Class 6,5 High	Class 6,5 Low	Class 4 High	Class 4 Low	Class O hB ^⑤ Max.	Class O hB ^⑤ Min.	Class 6,5 Max.	Class 6,5 Min.	Class 4 Max.	Class 4 Min.	Class 0	Class 6	Class 5	Class 4
18	30	+0	-9	+0	-8	+0	-6	+2	-11	+1	-9	+0	-6	18	9	6	4
30	50	+0	-11	+0	-9	+0	-7	+3	-14	+2	-11	+0	-7	20	10	7	5
50	80	+0	-13	+0	-11	+0	-9	+4	-17	+2	-13	+0	-9	25	13	8	5
80	120	+0	-15	+0	-13	+0	-10	+5	-20	+2	-15	+0	-10	35	18	10	6
120	150	+0	-18	+0	-15	+0	-11	+6	-24	+3	-18	+0	-11	40	20	11	7
150	180	+0	-25	+0	-18	+0	-13	+7	-32	+3	-21	+0	-13	45	23	13	8
180	250	+0	-30	+0	-20	+0	-15	+8	-38	+4	-24	+0	-15	50	25	15	10
250	315	+0	-35	+0	-25	+0	-18	+9	-44	+4	-29	+0	-18	60	30	18	11
315	400	+0	-40	+0	-28	+0	-20	+10	-50	+5	-33	+0	-20	70	35	20	13
400	500	+0	-45	—	—	—	—	+12	-57	—	—	—	—	80	—	—	—
500	630	+0	-50	—	—	—	—	+14	-64	—	—	—	—	100	—	—	—

Table 7-A (Tolerance Limits in 0.0001 inch)

OUTER RING																	
Outside Diameter <i>D</i> Nominal inch		BEARING OUTSIDE DIAMETER												Radial Run-Out Re Max.			
		<i>D_m</i> ^④ Deviations						<i>D</i> ^⑥ Deviations									
		Class O hB ^⑤ High	Class O hB ^⑤ Low	Class 6,5 High	Class 6,5 Low	Class 4 High	Class 4 Low	Class O hB ^⑤ Max.	Class O hB ^⑤ Min.	Class 6,5 Max.	Class 6,5 Min.	Class 4 Max.	Class 4 Min.	Class 0	Class 6	Class 5	Class 4
.7087	1.1811	+0	-3.5	+0	-3.1	+0	-2.4	+ .8	-4.3	+ .4	-3.5	+0	-2.4	7.1	3.5	2.4	1.6
1.1811	1.9685	+0	-4.3	+0	-3.5	+0	-2.8	+1.2	-5.5	+ .8	-4.3	+0	-2.8	7.9	3.9	2.8	2.0
1.9685	3.1496	+0	-5.1	+0	-4.3	+0	-3.5	+1.6	-6.7	+ .8	-5.1	+0	-3.5	9.8	5.1	3.1	2.0
3.1496	4.7244	+0	-5.9	+0	-5.1	+0	-3.9	+2.0	-7.9	+ .8	-5.9	+0	-3.9	13.8	7.1	3.9	2.4
4.7244	5.9055	+0	-7.1	+0	-5.9	+0	-4.3	+2.4	-9.4	+1.2	-7.1	+0	-4.3	15.7	7.9	4.3	2.8
5.9055	7.0866	+0	-9.8	+0	-7.1	+0	-5.1	+2.8	-12.6	+1.2	-8.3	+0	-5.1	17.7	9.1	5.1	3.1
7.0866	9.8425	+0	-11.8	+0	-7.9	+0	-5.9	+3.1	-15.0	+1.6	-9.4	+0	-5.9	19.7	9.8	5.9	3.9
9.8425	12.4016	+0	-13.8	+0	-9.8	+0	-7.1	+3.5	-17.3	+1.6	-11.4	+0	-7.1	23.6	11.8	7.1	4.3
12.4016	15.7480	+0	-15.7	+0	-11.0	+0	-7.9	+3.9	-19.7	+2.0	-13.0	+0	-7.9	27.6	13.8	7.9	5.1
15.7480	19.6850	+0	-17.7	—	—	—	—	+4.7	-22.4	—	—	—	—	31.5	—	—	—
19.6850	24.8031	+0	-19.7	—	—	—	—	+5.5	-25.2	—	—	—	—	39.4	—	—	—

④ *D_m* is defined as the arithmetical mean of the largest and the smallest single diameter of the outside surface obtained by two-point measurements.

⑤ *hB* is the symbol for limit deviations of *DM* and *D* for Class 0.

⑥ The values of deviation of *D* are valid for two-point measurements only.

Deviations of *D* for Class 0 apply only to diameter series 0, 2 and 3, and do not apply to either of the following cases: over 80 mm of *D* in diameter series 0, or over 315 mm of *D* in diameter series 2.

Deviations of *D* for Class 6 apply only to diameter series 0, 2 and 3, and do not apply to the case of over 95 mm of *D* in diameter series 0.

REMARKS:

The low deviations of outside diameter specified in this table do not apply within a distance of twice the nominal ring chamfer dimensions from the ring face.



Tolerance limits for:
Tapered roller bearings with "J" prefixed part numbers.

Table 8

Cone Bore				Class K				Class N				Class C				Class B			
inch		mm		.0001 inch		.001 mm		.0001 inch		.001 mm		.0001 inch		.001 mm		.0001 inch		.001 mm	
Over	Incl.	Over	Incl.	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
.3937	.7087	10	18	+0	-5	+0	-13	+0	-5	+0	-13	+0	-4	+0	-10	+0	-3	+0	-8
.7087	1.1811	18	30	+0	-5	+0	-13	+0	-5	+0	-13	+0	-4	+0	-10	+0	-3	+0	-8
1.1811	1.9685	30	50	+0	-5	+0	-13	+0	-5	+0	-13	+0	-4	+0	-10	+0	-4	+0	-10
1.9685	3.1496	50	80	+0	-6	+0	-15	+0	-6	+0	-15	+0	-5	+0	-13	+0	-4	+0	-10
3.1496	4.7244	80	120	+0	-8	+0	-20	+0	-8	+0	-20	+0	-5	+0	-13	+0	-4	+0	-10
4.7244	7.0866	120	180	+0	-10	+0	-25	+0	-10	+0	-25	+0	-5	+0	-13	+0	-4	+0	-10
7.0866	9.8425	180	250	+0	-12	+0	-30	+0	-12	+0	-30	+0	-6	+0	-15	+0	-5	+0	-13
9.8425	12.4016	250	315	+0	-14	+0	-35	+0	-14	+0	-35	+0	-7	+0	-18	+0	-5	+0	-13

Table 9

Cup O.D.				Class K				Class N				Class C				Class B			
inch		mm		.0001 inch		.001 mm		.0001 inch		.001 mm		.0001 inch		.001 mm		.0001 inch		.001 mm	
Over	Incl.	Over	Incl.	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
.7087	1.1811	18	30	+0	-8	+0	-20	+0	-8	+0	-20	+0	-3	+0	-8	+0	-3	+0	-8
1.1811	1.9685	30	50	+0	-8	+0	-20	+0	-8	+0	-20	+0	-4	+0	-10	+0	-2	+0	-8
1.9685	3.1496	50	80	+0	-8	+0	-20	+0	-8	+0	-20	+0	-4	+0	-10	+0	-3.5	+0	-9
3.1496	4.7244	80	120	+0	-8	+0	-20	+0	-8	+0	-20	+0	-5	+0	-13	+0	-4	+0	-10
4.7244	5.9055	120	150	+0	-10	+0	-25	+0	-10	+0	-25	+0	-5	+0	-13	+0	-4	+0	-10
5.9055	7.0866	150	180	+0	-10	+0	-25	+0	-10	+0	-25	+0	-5	+0	-13	+0	-4	+0	-10
7.0866	9.8425	180	250	+0	-12	+0	-30	+0	-12	+0	-30	+0	-6	+0	-15	+0	-5	+0	-13
9.8425	12.4016	250	315	+0	-16	+0	-40	+0	-16	+0	-40	+0	-8	+0	-20	+0	-6	+0	-15
12.4016	15.7480	315	400	+0	-16	+0	-40	+0	-16	+0	-40	+0	-8	+0	-20	+	-	-	-
15.7480	19.6850	400	500	+0	-20	+0	-50	+0	-20	+0	-50	+0	-10	+0	-25	-	-	-	-

Table 10

Cone Bore				Class K				Class N				Class C				Class B			
inch		mm		.0001 inch		.001 mm		.0001 inch		.001 mm		.0001 inch		.001 mm		.0001 inch		.001 mm	
Over	Incl.	Over	Incl.	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
.3937	.7087	10	18	+79	-0	+200	-0	+39	-0	+100	-0	+79	-79	+200	-200	+79	-79	+200	-200
.7087	1.1811	18	30	+79	-0	+200	-0	+39	-0	+100	-0	+79	-79	+200	-200	+79	-79	+200	-200
1.1811	1.9685	30	50	+79	-0	+200	-0	+39	-0	+100	-0	+79	-79	+200	-200	+79	-79	+200	-200
1.9685	3.1496	50	80	+79	-0	+200	-0	+39	-0	+100	-0	+79	-79	+200	-200	+79	-79	+200	-200
3.1496	4.7244	80	120	+79	-79	+200	-200	+39	-0	+100	-0	+79	-79	+200	-200	+79	-79	+200	-200
4.7244	7.0866	120	180	+79	-79	+200	-200	+59	-0	+150	-0	+79	-98	+200	-250	+79	-98	+200	-250
7.0866	9.8425	180	250	+79	-79	+200	-200	+59	-0	+150	-0	+79	-118	+200	-300	+79	-118	+200	-300
9.8425	12.4016	250	315	+79	-79	+200	-200	+79	-0	+200	-0	+79	-118	+200	-300	+79	-118	+200	-300

Table 11

CONE WIDTH TOLERANCES																			
Cone Bore				Class K				Class N				Class C				Class B			
inch		mm		.0001 inch		.001 mm		.0001 inch		.001 mm		.0001 inch		.001 mm		.0001 inch		.001 mm	
Over	Incl.	Over	Incl.	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
.3937	.7087	10	18	+0	-39	+0	-100	+0	-20	+0	-50	+0	-79	+0	-200	+0	-79	+0	-200
.7087	1.1811	18	30	+0	-39	+0	-100	+0	-20	+0	-50	+0	-79	+0	-200	+0	-79	+0	-200
1.1811	1.9685	30	50	+0	-39	+0	-100	+0	-20	+0	-50	+0	-79	+0	-200	+0	-79	+0	-200
1.9685	3.1496	50	80	+0	-59	+0	-150	+0	-20	+0	-50	+0	-118	+0	-300	+0	-118	+0	-300
3.1496	4.7244	80	120	+0	-59	+0	-150	+0	-20	+0	-50	+0	-118	+0	-300	+0	-118	+0	-300
4.7244	7.0866	120	180	+0	-79	+0	-200	+0	-20	+0	-50	+0	-118	+0	-300	+0	-118	+0	-300
7.0866	9.8425	180	250	+0	-79	+0	-200	+0	-20	+0	-50	+0	-138	+0	-350	+0	-138	+0	-350
9.8425	12.4016	250	315	+0	-79	+0	-200	+0	-20	+0	-50	+0	-138	+0	-350	+0	-138	+0	-350

Table 12

CUP WIDTH TOLERANCES																			
Cup O.D.				Class K				Class N				Class C				Class B			
inch		mm		.0001 inch		.001 mm		.0001 inch		.001 mm		.0001 inch		.001 mm		.0001 inch		.001 mm	
Over	Incl.	Over	Incl.	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
.7087	1.1811	18	30	+0	-59	+0	-150	+0	-39	+0	-100	+0	-59	+0	-150	+0	-59	+0	-150
1.1811	1.9685	30	50	+0	-59	+0	-150	+0	-39	+0	-100	+0	-59	+0	-150	+0	-59	+0	-150
1.9685	3.1496	50	80	+0	-59	+0	-150	+0	-39	+0	-100	+0	-59	+0	-150	+0	-59	+0	-150
3.1496	4.7244	80	120	+0	-79	+0	-200	+0	-39	+0	-100	+0	-79	+0	-200	+0	-79	+0	-200
4.7244	5.9055	120	150	+0	-79	+0	-200	+0	-39	+0	-100	+0	-79	+0	-200	+0	-79	+0	-200
5.9055	7.0866	150	180	+0	-79	+0	-200	+0	-39	+0	-100	+0	-98	+0	-250	+0	-98	+0	-250
7.0866	9.8425	180	250	+0	-98	+0	-250	+0	-39	+0	-100	+0	-98	+0	-250	+0	-98	+0	-250
9.8425	12.4016	250	315	+0	-98	+0	-250	+0	-39	+0	-100	+0	-118	+0	-300	+0	-118	+0	-300
12.4016	15.7480	315	400	+0	-98	+0	-250	+0	-39	+0	-100	+0	-118	+0	-300	-	-	-	-
15.7480	19.6850	400	500	+0	-118	+0	-300	+0	-39	+0	-100	+0	-138	+0	-350	-	-	-	-

Table 13

ASSEMBLED BEARING MAXIMUM RADIAL RUNOUT											
Cup O.D.				Class K		Class N		Class C		Class B	
Inch		mm		.0001 inch	.001 mm	.0001 inch	.001 mm	.0001 inch	.001 mm	.0001 inch	.001 mm
Over	Incl.	Over	Incl.								
.7087	1.1811	18	30	12	30	12	30	2	5	1	2.5
1.1811	1.9685	30	50	12	30	12	30	2.4	6	1	2.5
1.9685	3.1496	50	80	12	30	12	30	2.4	6	1.4	3.5
3.1496	4.7244	80	120	16	40	16	40	2.4	6	1.4	3.5
4.7244	5.9055	120	150	16	40	16	40	2.8	7	1.4	3.5
5.9055	7.0866	150	180	16	40	16	40	3	8	1.5	4
7.0866	9.8425	180	250	20	50	20	50	4	10	2	5
9.8425	12.4016	250	315	20	50	20	50	4.3	11	2	5
12.4016	15.7480	315	400	20	50	20	50	5	13	-	-
15.7480	19.6850	400	500	25	65	25	65	7	18	-	-



Tolerance limits for:
Inch series tapered roller bearings.

Table 14

CONE BORE TOLERANCES																			
Cone Bore				Class 4				Class 3				Class 0				Class 00			
inch		mm		.0001 inch		.001 mm		.0001 inch		.001 mm		.0001 inch		.001 mm		.0001 inch		.001 mm	
Over	Incl.	Over	Incl.	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
—	3	—	76.2	+5	-0	+13	-0	+5	-0	+13	-0	5	-0	+13	-0	+3	-0	+8	0
3	12	76.2	304.8	+10	-0	+25	-0	+5	-0	+13	-0	5	-0	+13	-0	+3	-0	+8	0
12	24	304.8	609.6	+20	-0	+51	-0	+10	-0	+25	-0	—	—	—	—	—	—	—	—
24	36	609.6	914.4	+30	-0	+76	-0	+15	-0	+38	-0	—	—	—	—	—	—	—	—
36	48	914.4	1219.2	+40	-0	+102	-0	+20	-0	+51	-0	—	—	—	—	—	—	—	—
48	—	1219.2	—	+50	-0	+127	-0	+30	-0	+76	-0	—	—	—	—	—	—	—	—

Table 15

CUP O.D. TOLERANCES																			
Cup O.D.				Class 4				Class 3				Class 0				Class 00			
inch		mm		.0001 inch		.001 mm		.0001 inch		.001 mm		.0001 inch		.001 mm		.0001 inch		.001 mm	
Over	Incl.	Over	Incl.	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
—	12	—	304.8	+10	-0	+25	-0	+5	-0	+13	-0	+5	-0	+13	-0	+3	-0	+8	-0
12	24	304.8	609.6	+20	-0	+51	-0	+10	-0	+25	-0	—	—	—	—	—	—	—	—
24	36	609.6	914.4	+30	-0	+76	-0	+15	-0	+38	-0	—	—	—	—	—	—	—	—
36	48	914.4	1219.2	+40	-0	+102	-0	+20	-0	+51	-0	—	—	—	—	—	—	—	—
48	—	1219.2	—	+50	-0	+127	-0	+30	-0	+76	-0	—	—	—	—	—	—	—	—

Table 16

OVERALL BEARING WIDTH TOLERANCES																			
Cone Bore				Cup O.D.				Class 4				Class 3				Class 0, 00			
inch		mm		.0001 inch		.001 mm		.0001 inch		.001 mm		.0001 inch		.001 mm		.0001 inch		.001 mm	
Over	Incl.	Over	Incl.	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
—	4	—	101.6	—	—	—	—	+80	-0	+203	-0	+80	-80	+203	-203	+80	-80	+203	-203
4	12	101.6	304.8	—	—	—	—	+140	-1	+356	-254	+80	-80	+203	-203	+80	-80	+203	-203
12	24	304.8	609.6	—	-20	—	-508	+150	-150	+381	-381	+80	-80	+203	-203	—	—	—	—
12	24	304.8	609.6	+20	—	+508	—	+150	-150	+381	-381	+150	-150	+381	-381	—	—	—	—
24	—	609.6	—	—	—	—	—	+150	-150	+381	-381	+150	-150	+381	-381	—	—	—	—

Table 17

ASSEMBLED BEARING MAXIMUM RADIAL RUNOUT											
Cup O.D.				Class 4		Class 3		Class 0		Class 00	
inch		mm		.0001 inch	.001 mm	.0001 inch	.001 mm	.0001 inch	.001 mm	.0001 inch	.001 mm
Over	Incl.	Over	Incl.								
—	12	—	304.8	20	51	3	8	1.5	4	.75	2
12	24	304.8	609.6	20	51	7	18	—	—	—	—
24	36	609.6	914.4	30	76	20	51	—	—	—	—
36	—	914.4	—	30	76	30	76	—	—	—	—

Standard tolerance values for radial internal clearance of single row deep groove ball bearings with cylindrical bore.



Table 18 (Tolerance Limits in 0.001 mm)

SINGLE ROW DEEP GROOVE BALL BEARINGS (CYLINDRICAL BORE)									
Nominal Bore <i>d</i> mm		C2 Less than Normal Clearance		— Normal Clearance		C3 Greater than Normal Clearance		C4 Greater than C3 Clearance	
<i>Over</i>	<i>Incl.</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>
—	2.5	—	6	4	11	10	20	—	—
2.5	10.0	—	7	2	13	8	23	—	—
10.0	18.0	—	9	3	18	11	25	18	33
18.0	24.0	—	10	5	20	13	28	20	36
24.0	30.0	—	11	5	20	13	28	23	41
30.0	40.0	—	11	6	20	15	33	28	46
40.0	50.0	—	11	6	23	18	36	30	51
50.0	65.0	—	15	8	28	23	43	38	61
65.0	80.0	—	15	10	30	25	51	46	71
80.0	100.0	—	18	12	36	30	58	53	84
100.0	120.0	—	20	15	41	36	66	61	97
120.0	140.0	—	23	18	48	41	81	71	114
140.0	160.0	—	23	18	53	46	91	81	130
160.0	180.0	—	25	20	61	53	102	91	147
180.0	200.0	—	30	25	71	63	117	107	163

Table 18-A (Tolerance Limits in 0.0001 inch)

SINGLE ROW DEEP GROOVE BALL BEARINGS (CYLINDRICAL BORE)									
Nominal Bore <i>d</i> inch		C2 Less than Normal Clearance		— Normal Clearance		C3 Greater than Normal Clearance		C4 Greater than C3 Clearance	
<i>Over</i>	<i>Incl.</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>
—	.0984	—	2.4	1.6	4.3	3.9	7.9	—	—
.0984	.3937	—	2.8	.8	5.1	3.1	9.1	—	—
.3937	.7087	—	3.5	1.2	7.1	4.3	9.8	7.1	13.0
.7087	.9449	—	3.9	2.0	7.9	5.1	11.0	7.9	14.2
.9449	1.1811	—	4.3	2.0	7.9	5.1	11.0	9.1	16.1
1.1811	1.5748	—	4.3	2.4	7.9	5.9	13.0	11.0	18.1
1.5748	1.9685	—	4.3	2.4	9.1	7.1	14.2	11.8	20.1
1.9685	2.5591	—	5.9	3.1	11.0	9.1	16.9	15.0	24.0
2.5591	3.1496	—	5.9	3.9	11.8	9.8	20.1	18.1	28.0
3.1496	3.9370	—	7.1	4.7	14.2	11.8	22.8	20.9	33.1
3.9370	4.7244	—	7.9	5.9	16.1	14.2	26.0	24.0	38.2
4.7244	5.5118	—	9.1	7.1	18.9	16.1	31.9	28.0	44.9
5.5118	6.2993	—	9.1	7.1	20.9	18.1	35.8	31.9	51.2
6.2992	7.0866	—	9.8	7.9	24.0	20.9	40.2	35.8	57.9
7.0866	7.8740	—	11.8	9.8	28.0	24.8	46.1	42.1	64.2

RADIAL CLEARANCE COMPENSATION VALUES

Table 19 (Tolerance Limits in 0.001 mm)

Nominal Bore <i>d</i> mm			Measuring Load (kg)	Clearance			
<i>Over</i>	<i>Incl.</i>	C2		Normal	C3	C4	
10	18	2.5	3-4	4	4	4	
18	50	5	4-5	5	6	6	

Table 19-A (Tolerance Limits in 0.0001 inch)

Nominal Bore <i>d</i> inch			Measuring Load (lbs)	Clearance			
<i>Over</i>	<i>Incl.</i>	C2		Normal	C3	C4	
.3937	.7087	5.5	1.2-1.6	1.6	1.6	1.6	
.7087	1.9685	11	1.6-2.0	2.0	2.4	2.4	

REMARKS:

When measuring radial internal clearance, a slight amount of elastic deformation of the bearing occurs. The resulting measured clearance is slightly larger than the true clearance, and must be accounted for. These compensation values are given in tables 19 and 19-A.



Standard tolerance values for radial internal clearance of cylindrical roller bearings with cylindrical bore and interchangeable component.

Table 20 (Tolerance Limits in 0.001 mm)

CYLINDRICAL ROLLER BEARINGS (cylindrical bore; interchangeable component)											
Nominal Bore <i>d</i> mm		C2 Less than Normal Clearance		— Normal Clearance		C3 Greater than Normal Clearance		C4 Greater than C3 Clearance		C5 Greater than C4 Clearance	
<i>Over</i>	<i>Incl.</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>
18	24	0	30	10	40	25	55	35	65	55	85
24	30	0	30	10	45	30	65	40	70	60	90
30	40	0	35	15	50	35	70	45	80	70	105
40	50	5	40	20	55	40	75	55	90	85	120
50	65	5	45	20	65	45	90	65	105	100	140
65	80	5	55	25	75	55	105	75	125	115	165
80	100	10	60	30	80	65	115	90	140	145	195
100	120	10	65	35	90	80	135	105	160	165	220
120	140	10	75	40	105	90	155	115	180	185	250
140	160	15	80	50	115	100	165	130	195	210	275
160	180	20	85	60	125	110	175	150	215	235	300
180	200	25	95	65	135	125	195	165	235	260	330
200	225	30	105	75	150	140	215	180	255	290	365
225	250	40	115	90	165	155	230	205	280	320	395
250	280	45	125	100	180	175	255	230	310	355	435
280	315	50	135	110	195	195	280	255	340	400	485
315	355	55	145	125	215	215	305	280	370	440	530
355	400	65	160	140	235	245	340	320	415	500	595
400	450	70	190	155	275	270	390	355	455	555	675
450	500	85	205	180	300	300	420	395	515	620	740

Table 20-A (Tolerance Limits in 0.0001 inch)

CYLINDRICAL ROLLER BEARINGS (cylindrical bore; interchangeable component)											
Nominal Bore <i>d</i> inch		C2 Less than Normal Clearance		— Normal Clearance		C3 Greater than Normal Clearance		C4 Greater than C3 Clearance		C5 Greater than C4 Clearance	
<i>Over</i>	<i>Incl.</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>
.7087	.9449	0	11.8	3.9	15.7	9.8	21.7	13.8	25.6	21.7	33.5
.9449	1.1811	0	11.8	3.9	17.7	11.8	25.6	15.7	27.6	23.6	35.4
1.1811	1.5748	0	13.8	5.9	19.7	13.8	27.6	17.7	31.5	27.6	41.3
1.5748	1.9685	2.0	15.7	7.9	21.7	15.7	29.5	21.7	35.4	33.5	47.2
1.9685	2.5591	2.0	17.7	9.9	25.6	17.7	35.4	25.6	41.3	39.4	55.1
2.5591	3.1496	2.0	21.7	9.8	29.5	21.7	41.3	29.5	49.2	45.3	65.0
3.1496	3.9370	3.9	23.6	11.8	31.5	25.6	45.3	35.4	55.1	57.1	76.8
3.9370	4.7244	3.9	25.6	13.8	35.4	31.5	53.1	41.3	63.0	65.0	86.6
4.7244	5.5118	3.9	29.5	15.7	41.3	35.4	61.0	45.3	70.9	72.8	98.4
5.5118	6.2992	5.9	31.5	19.7	45.3	39.4	65.0	51.2	76.8	82.7	108.3
6.2992	7.0866	7.9	33.5	23.6	49.2	43.3	68.9	59.1	84.6	92.5	118.1
7.0866	7.8740	9.8	37.4	25.6	53.1	49.2	76.8	65.0	92.5	102.4	129.9
7.8740	8.8583	11.8	41.3	29.5	59.1	55.1	84.6	70.9	100.4	114.2	143.7
8.8583	9.8425	15.7	45.3	35.4	65.0	61.0	90.6	80.7	110.2	126.0	155.5
9.8425	11.0236	17.7	49.2	39.4	70.9	68.9	100.4	90.6	122.0	139.8	171.3
11.0236	12.4016	19.7	53.1	43.3	76.8	76.8	110.2	100.4	133.9	157.5	190.9
12.4016	13.9764	21.7	57.1	49.2	84.6	84.6	120.1	110.2	145.7	173.2	208.7
13.9764	15.7480	25.6	63.0	55.1	92.5	96.5	133.9	126.0	163.4	196.9	234.3
15.7480	17.7165	27.6	74.8	61.0	108.3	106.3	153.5	139.8	179.1	218.5	265.7
17.7165	19.6850	33.5	80.7	70.9	118.1	118.1	165.4	155.5	202.8	244.1	291.3

Standard tolerance values for radial internal clearance of cylindrical roller bearings with cylindrical bore and non-interchangeable component*

*(NA suffix designates non-interchangeable component)



Table 21 (Tolerance Limits in 0.001 mm)

CYLINDRICAL ROLLER BEARINGS (cylindrical bore; non-interchangeable component)													
Nominal Bore <i>d</i> mm		C1 NA Less than C2 Clearance		C2 NA Less than Normal Clearance		NA Normal Clearance		C3 NA Greater than Normal Clearance		C4 NA Greater than C3 Clearance		C5 NA Greater than C4 Clearance	
<i>Over</i>	<i>Incl.</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>
18	24	5	10	10	20	20	30	35	45	45	55	65	75
24	30	5	10	10	25	25	35	40	50	50	60	70	80
30	40	5	12	12	25	25	40	45	55	55	70	80	95
40	50	5	15	15	30	30	45	50	65	65	80	95	110
50	65	5	15	15	35	35	50	55	75	75	90	110	130
65	80	10	20	20	40	40	60	70	90	90	110	130	150
80	100	10	25	25	45	45	70	80	105	105	125	155	180
100	120	10	25	25	50	50	80	95	120	120	145	180	205
120	140	15	30	30	60	60	90	105	135	135	160	200	230
140	160	15	35	35	65	65	100	115	150	150	180	225	260
160	180	15	35	35	75	75	110	125	165	165	200	250	285
180	200	20	40	40	80	80	120	140	180	180	220	275	315
200	225	20	45	45	90	90	135	155	200	200	240	305	350
225	250	25	50	50	100	100	150	170	215	215	265	330	380
250	280	25	55	55	110	110	165	185	240	240	295	370	420
280	315	30	60	60	120	120	180	205	265	265	325	410	470
315	355	30	65	65	135	135	200	225	295	295	360	455	520
355	400	35	75	75	150	150	225	255	330	330	405	510	585
400	450	45	85	85	170	170	255	285	370	370	455	565	650
450	500	50	95	95	190	190	285	315	410	410	505	625	720

Table 21-A (Tolerance Limits in 0.0001 inch)

CYLINDRICAL ROLLER BEARINGS (cylindrical bore; non-interchangeable component)													
Nominal Bore <i>d</i> inch		C1 NA Less than C2 Clearance		C2 NA Less than Normal Clearance		NA Normal Clearance		C3 NA Greater than Normal Clearance		C4 NA Greater than C3 Clearance		C5 NA Greater than C4 Clearance	
<i>Over</i>	<i>Incl.</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>
.7087	.9449	2.0	3.9	3.9	7.9	7.9	11.8	13.6	17.7	17.7	21.7	25.6	29.5
.9449	1.1811	2.0	3.9	3.9	9.8	9.8	13.8	15.7	19.7	19.7	23.6	27.6	31.5
1.1811	1.5748	2.0	4.7	4.7	9.8	9.8	15.7	17.7	21.7	21.7	27.6	31.5	37.4
1.5748	1.9685	2.0	5.9	5.9	11.8	11.8	17.7	19.7	25.6	25.6	31.5	37.4	43.3
1.9685	2.5591	2.0	5.9	5.9	13.8	13.8	19.7	21.7	29.5	29.5	35.4	43.3	51.2
2.5591	3.1496	3.9	7.9	7.9	15.7	15.7	23.6	27.6	35.4	35.4	43.3	51.2	59.1
3.1496	3.9370	3.9	9.8	9.8	17.7	17.7	27.6	31.5	41.3	41.3	49.2	61.0	70.9
3.9370	4.7244	3.9	9.8	9.8	19.7	19.7	31.5	37.4	47.2	47.2	57.1	70.9	80.7
4.7244	5.5118	5.9	11.8	11.8	23.6	23.6	35.4	41.3	53.1	53.1	63.0	78.7	90.6
5.5118	6.2992	5.9	13.8	13.8	25.6	25.6	39.4	45.3	59.1	59.1	70.9	88.6	102.4
6.2992	7.0866	5.9	13.8	13.8	29.5	29.5	43.3	49.2	65.0	65.0	78.7	98.4	112.2
7.0866	7.8740	7.9	15.7	15.7	31.5	31.5	47.2	55.1	70.9	70.9	86.6	108.3	124.0
7.8740	8.8583	7.9	17.7	17.7	35.4	35.4	53.1	61.0	78.7	78.7	94.5	120.1	137.8
8.8583	9.8425	9.8	19.7	19.7	39.4	39.4	59.1	66.9	84.6	84.6	104.3	129.9	149.6
9.8425	11.0236	9.8	21.7	21.7	43.3	43.3	65.0	72.8	94.5	94.5	116.1	145.7	165.4
11.0236	12.4016	11.8	23.6	23.6	47.2	47.2	70.9	80.7	104.3	104.3	128.0	161.4	185.0
12.4016	13.9764	11.8	25.6	25.6	53.1	53.1	78.7	88.6	116.1	116.1	141.7	179.1	204.7
13.9764	15.7480	13.8	29.5	29.5	59.1	59.1	88.6	100.4	129.9	129.9	159.4	200.8	230.3
15.7480	17.7165	17.7	33.5	33.5	66.9	66.9	100.4	112.2	145.7	145.7	179.1	222.4	255.9
17.7165	19.6850	19.7	37.4	37.4	74.8	74.8	112.2	124.0	161.4	161.4	198.8	246.1	283.5



Standard tolerance values for radial internal clearance of spherical roller bearings with cylindrical bore.

Table 22 (Tolerance Limits in 0.001 mm)

SPHERICAL ROLLER BEARINGS (cylindrical bore)									
Nominal Bore <i>d</i> mm		C2 Less than Normal Clearance		— Normal Clearance		C3 Greater than Normal Clearance		C4 Greater than C3 Clearance	
<i>Over</i>	<i>Incl.</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>
30	40	15	30	30	45	45	60	60	80
40	50	20	35	35	55	55	75	75	100
50	65	20	40	40	65	65	90	90	120
65	80	30	50	50	80	80	110	110	145
80	100	35	60	60	100	100	135	135	180
100	120	40	75	75	120	120	160	160	210
120	140	50	95	95	145	145	190	190	240
140	160	60	110	110	170	170	220	220	280
160	180	65	120	120	180	180	240	240	310
180	200	70	130	130	200	200	260	260	340
200	225	80	140	140	220	220	290	290	380
225	250	90	150	150	240	240	320	320	420
250	280	100	170	170	260	260	350	350	460
280	315	110	190	190	280	280	370	370	500
315	355	120	200	200	310	310	410	410	550
355	400	130	220	220	340	340	450	450	600
400	450	140	240	240	370	370	500	500	660
450	500	140	260	260	410	410	550	550	720
500	560	150	280	280	440	440	600	600	780
560	630	170	310	310	480	480	650	650	850
630	710	190	350	350	530	530	700	700	920
710	800	210	390	390	580	580	770	770	1010
800	900	230	430	430	650	650	860	860	1120
900	1000	260	480	480	710	710	930	930	1220

Table 22-A (Tolerance Limits in 0.0001 inch)

SPHERICAL ROLLER BEARINGS (cylindrical bore)									
Nominal Bore <i>d</i> inch		C2 Less than Normal Clearance		— Normal Clearance		C3 Greater than Normal Clearance		C4 Greater than C3 Clearance	
<i>Over</i>	<i>Incl.</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>
1.1811	1.5748	5.9	11.8	11.8	17.7	17.7	23.6	23.6	31.5
1.5748	1.9685	7.9	13.8	13.8	21.7	21.7	29.5	29.5	39.4
1.9685	2.5591	7.9	15.7	15.7	25.6	25.6	35.4	35.4	47.2
2.5591	3.1496	11.8	19.7	19.7	31.5	31.5	43.3	43.3	57.1
3.1496	3.9370	13.8	23.6	23.6	39.4	39.4	53.1	53.1	70.9
3.9370	4.7244	15.7	29.5	29.5	47.2	47.2	63.0	63.0	82.7
4.7244	5.5118	19.7	37.4	37.4	57.1	57.1	74.8	74.8	94.5
5.5118	6.2992	23.6	43.3	43.3	66.9	66.9	86.6	86.6	110.2
6.2992	7.0866	25.6	47.2	47.2	70.9	70.9	94.5	94.5	122.0
7.0866	7.8740	27.6	51.2	51.2	78.7	78.7	102.4	102.4	133.9
7.8740	8.8583	31.5	55.1	55.1	86.6	86.6	114.2	114.2	149.6
8.8583	9.8425	35.4	59.1	59.1	94.5	94.5	126.0	126.0	165.4
9.8425	11.0236	39.4	66.9	66.9	102.4	102.4	137.8	137.8	181.1
11.0236	12.4016	43.3	74.8	74.8	110.2	110.2	145.7	145.7	196.9
12.4016	13.9764	47.2	78.7	78.7	122.0	122.0	161.4	161.4	216.5
13.9764	15.7480	51.2	86.6	86.6	133.9	133.9	177.2	177.2	236.2
15.7480	17.7165	55.1	94.5	94.5	145.7	145.7	196.9	196.9	259.8
17.7165	19.6850	55.1	102.4	102.4	161.4	161.4	216.5	216.5	283.5
19.6850	22.0472	59.1	110.2	110.2	173.2	173.2	236.2	236.2	307.1
22.0472	24.8031	66.9	122.0	122.0	189.0	189.0	255.9	255.9	334.6
24.8031	27.9528	74.8	137.8	137.8	208.7	208.7	275.6	275.6	362.2
27.9528	31.4961	82.7	153.5	153.5	228.3	228.3	303.1	303.1	397.6
31.4961	35.4331	90.6	169.3	169.3	255.9	255.9	338.6	338.6	440.9
35.4331	39.3701	102.4	189.0	189.0	279.5	279.5	366.1	366.1	480.3

Standard tolerance values for radial internal clearance of spherical roller bearings with tapered bore.

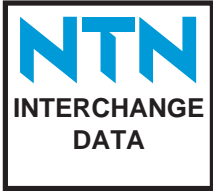


Table 23 (Tolerance Limits in 0.001 mm)

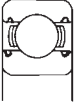
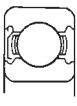
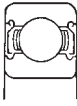
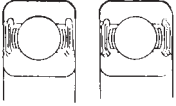
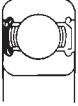
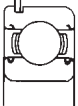
SPHERICAL ROLLER BEARINGS (TAPERED BORE)									
Nominal Bore <i>d</i> mm		C2 Less than Normal Clearance		— Normal Clearance		C3 Greater than Normal Clearance		C4 Greater than C3 Clearance	
<i>Over</i>	<i>Incl.</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>
30	40	25	35	35	50	50	65	65	85
40	50	30	45	45	60	60	80	80	100
50	65	40	55	55	75	75	95	95	120
65	80	50	70	70	95	95	120	120	150
80	100	55	80	80	110	110	140	140	180
100	120	65	100	100	135	135	170	170	220
120	140	80	120	120	160	160	200	200	260
140	160	90	130	130	180	180	230	230	300
160	180	100	140	140	200	200	260	260	340
180	200	110	160	160	220	220	290	290	370
200	225	120	180	180	250	250	320	320	410
225	250	140	200	200	270	270	350	350	450
250	280	150	220	220	300	300	390	390	490
260	315	170	240	240	330	330	430	430	540
315	355	190	270	270	360	360	470	470	590
355	400	210	300	300	400	400	520	520	650
400	450	230	330	330	440	440	570	570	720
450	500	260	370	370	490	490	630	630	790
500	560	290	410	410	540	540	680	680	870
560	630	320	460	460	600	600	760	760	980
630	710	350	510	510	670	670	850	850	1090
710	800	390	570	560	750	750	960	960	1220
800	900	440	640	640	840	840	1070	1070	1370
900	1000	490	710	710	930	930	1190	1190	1520

Table 23-A (Tolerance Limits in 0.0001 inch)

SPHERICAL ROLLER BEARINGS (TAPERED BORE)									
Nominal Bore <i>d</i> inch		C2 Less than Normal Clearance		— Normal Clearance		C3 Greater than Normal Clearance		C4 Greater than C3 Clearance	
<i>Over</i>	<i>Incl.</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>
1.1811	1.5748	9.8	13.8	13.8	19.7	19.7	25.6	25.6	33.5
1.5748	1.9685	11.8	17.7	17.7	23.6	23.6	31.5	31.5	39.4
1.9685	2.5591	15.7	21.7	21.7	29.5	29.5	37.4	37.4	47.2
2.5591	3.1496	19.7	27.6	27.6	37.4	37.4	47.2	47.2	59.1
3.1496	3.9370	21.7	31.5	31.5	43.3	43.3	55.1	55.1	70.9
3.9370	4.7244	25.6	39.4	39.4	53.1	53.1	66.9	66.9	86.6
4.7244	5.5118	31.5	47.2	47.2	63.0	63.0	78.7	78.7	102.4
5.5118	6.2992	35.4	51.2	51.2	70.9	70.9	90.6	90.6	118.1
6.2992	7.0866	39.4	55.1	55.1	78.7	78.7	102.4	102.4	133.9
7.0866	7.8740	43.3	63.0	63.0	86.6	86.6	114.2	114.2	145.7
7.8740	8.8583	47.2	70.9	70.9	98.4	98.4	126.0	126.0	161.4
8.8583	9.8425	55.1	78.7	78.7	106.3	106.3	137.8	137.8	177.2
9.8425	11.0236	59.1	86.6	86.6	118.1	118.1	153.5	153.5	192.9
11.0236	12.4016	66.9	94.5	94.5	129.9	129.9	169.3	169.3	212.6
12.4016	13.9764	74.8	106.3	106.3	141.7	141.7	185.0	185.0	232.3
13.9764	15.7480	82.7	118.1	118.1	157.5	157.5	204.7	204.7	255.9
15.7480	17.7165	90.6	129.9	129.9	173.2	173.2	224.4	224.4	283.5
17.7165	19.6850	102.4	145.7	145.7	192.9	192.9	248.0	248.0	311.0
19.6850	22.0472	114.2	161.4	161.4	212.6	212.6	267.7	267.7	342.5
22.0472	24.8031	126.0	181.1	181.1	236.2	236.2	299.2	299.2	385.8
24.8031	27.9528	137.8	200.8	200.8	263.8	263.8	334.6	334.6	429.1
27.9528	31.4961	153.5	224.4	224.4	295.3	295.3	378.0	378.0	480.3
31.4961	35.4331	173.2	252.0	252.0	330.7	330.7	421.3	421.3	539.4
35.4331	39.3701	192.9	279.5	279.5	366.1	366.1	468.5	468.5	598.4



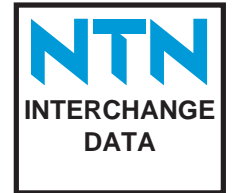
SEALS, SHIELDS, AND SNAP RINGS

						
	Open type	Single shielded	Double shielded	Double sealed	Single shielded sealed	With snap ring
NTN Suffix		Z	ZZ	LLB or LLU	LBZ or LUZ	NR
BARDEN Suffix		S	SS	FF	—	—
BCA Suffix		S	SS	DD	DS	L
FAFNIR Suffix		D	DD	PP	PD	G
FAG Suffix		Z	ZZ	2RS	RSZ	NR
MRC Suffix		F	FF	ZZ	ZF	G
NDH Prefix		7	77	99	97	4
NSK Suffix		Z	ZZ	VV OR DDU	VZ OR DUZ	NR
SKF Suffix		Z	2Z	2RS	RSZ	NR

SUFFIXES FOR SUPER PRECISION BEARINGS

MFG	ABEC-3 ISO CLASS 6	ABEC-5 ISO CLASS 5	ABEC-7 ISO CLASS 4	ABEC-9 ISO CLASS 2
NTN	P6	P5	P4	P2
BARDEN	—	ABEC5	ABEC7	ABEC9
FAFNIR	M*	V*	MM*	MMX*
FAG	P6	P5	P4	P2
MRC	—	ABEC-5	ABEC-7	ABEC-9
NDH	3	5	7	9
NSK	P6	P5	P4	P2
SKF	P6	P5	P4	PA9A

* These are prefixes

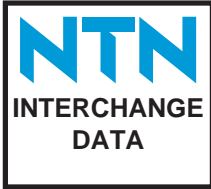


RADIAL BALL BEARINGS

NTN	BARDEN	BCA	FAFNIR	FAG	MRC	NDH	NSK	SKF
634	34K	34	34K	634	34	34	R4B	
635	35K	35	35K	635	35	35	R5B	
626	36K	36	36K	626	36	36	R6B	
627	37K	37	37K	627	37	37	R7	
608	38K	38	38K	608	38	38	R8	
629	39K	39	39K	629	39	39	R9	
6000	100K	100	9100K	6000	100KS	3L00	6000	
6200	200	200	200K	6200	200S	3200	6200	
6300	—	300	300K	6300	300S	3300	6300	
BL200	—	1200	200W	200	200M	1200	200	
BL300	—	1300	300W	300	300M	1300	300	
8000	—	8000	30KL	8000	30FS	8000	—	—
87000	—	87000	30KLD	87000	30FSF	87000	—	—
88000	—	88000	30KLL	88000	30FFS	88000	—	—
8500	—	8500	200KL	8500	200FS	8500	—	—
87500	—	87500	200KLD	87500	200FSF	87500	—	—
88500	—	88500	200KLL	88500	200FFS	88500	—	—
63200	9200	—	W200PP	S3500	200SFFC	—	—	462200
63300	9300	—	W300PP	S3600	300SFFC	—	—	462300
6900	—	—	9300K	61900	1900S	3LL00	6900	61900
R2	—	—	33K3	R2	R-2	R2	R2	—
RA2	SR2A	—	33K4	RA2	R-2A	R2A	R2A	EE-0
R3	SR3K	—	33K5	R3	R-3	R3	R3	EE-1
RA3Z	SR3S	—	33KD5	R3-Z	R-3-FM	7R3	R3Z	—
R188	SR188K	—	—	—	—	—	R188	—
EE2	SR4A	—	S1K	R4A	R-4A-4	R4A	EE2	EE-2
EE3	SR6K	—	S3K	R6	R-6	R6	EE3	EE-3
R4	SR4K	R4SS	S1K7	R4	R-4	R4	R4	—
RA4Z	SR4AS	—	S1KD	R4-A-Z	R-4-AF	7R4A	R4Z	—
R6Z	SR6S	R6SS	S3KD	R6-Z	R-6-F	7R6	R6Z	—
R8Z	SR8S	R8SS	S5KD	R8-Z	R-8-F	7R8	R8Z	—
R10Z	SR10S	R10S	S7KD	R10-Z	R-10-F	7R10	R10Z	—
R12Z	—	R12S	S8KD	R12-Z	R-12-F	7R12	R12Z	—
R14Z	—	R14S	—	R14-Z	R-14-F	7R14	R14Z	—
R16Z	—	R16S	—	R16-Z	R-16-F	7R16	R16Z	—
R18Z	—	—	—	R18-Z	R-18-F	7R18	R18Z	—
R20Z	—	—	—	R20-Z	—	7R20	R20Z	—

ANGULAR AND SELF ALIGNING BALL BEARINGS

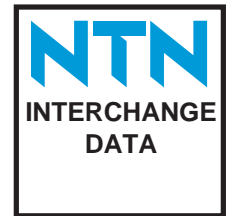
NTN	BARDEN	BCA	FAFNIR	FAG	MRC	NDH	NSK	SKF
7000	2100H	—	7100PW	7000	7100KR	0L00	7000	7100
7200	2200H	7200	7200PW	7200	7200	20200	7200	7200
7300	2300H	7300	7300PW	7300	7300	20300	7300	7300
3200	—	5200	5200	3200	5200	5200	—	5200
5200	—	—	—	—	—	—	5200	—
3300	—	5300	5300	3300	5300	5300	—	5300
5300	—	—	—	—	—	—	5300	—
1200	—	—	L200	1200	—	2500	1200	1200
2200	—	—	L6200	2200	—	—	2200	2200
1300	—	—	L300	1300	—	2600	1300	1300
2300	—	—	L6300	2300	—	—	2300	2300



CYLINDRICAL ROLLER BEARINGS							
NTN	BCA or BOWER	FAG	NDH	NSK	ROLLWAY	SKF	TORRINGTON
NU1000	—	NU1000	A1000WB	NU1000	—	NU1000	—
NU200	MA1200EL	NU200	A1200WB	NU200	MUC200	NU200	000RU02
NJ200	MR1200EL	NJ200	R1200WB	NJ200	MUL200	NJ200	000RJ02
NH200	—	—	PR1200WB	NH200	MR200	NH200	—
NUP200	MSN1200EX	NUP200	—	NUP200	MU200	NUP200	000RT02
N200	MU1200CL	N200	BU1200Z	N200	MCS200	N200	000RN02
NF200	MU1200DL	NF200	BU1200L	NF200	ML200	NF200	000RF02
NU2200	—	NU2200	—	NU2200	—	NU2200	—
NU300	MA1300EL	NU300	A1300WB	NU300	MUC300	NU300	000RU03
NU2300	—	NU2300	—	NU2300	—	NU2300	—
NN3000	—	NN3000	—	NN3000	—	NN3000	—

SPHERICAL ROLLER BEARINGS					
NTN	FAG	PTC- LINKBELT	NSK	SKF	TORRINGTON
23900	23900	—	23900	23900	23900
23000	23000	23000LB	23000	23000	23000
24000	24000	—	24000	24000	24000
23100	23100	23100LB	23100	23100	23100
24100	24100	—	24100	24100	24100
22200	22200	22200LB	22200	22200	22200
23200	23200	23200LB	23200	23200	23200
21300	21300	—	21300	21300	21300
22300	22300	22300LB	22300	22300	22300
29300	29300	—	29300	29300	29300
29400	29400	—	29400	29400	29400

THRUST BALL BEARINGS							
NTN	AETNA	ANDREWS	FAFNIR	FAG	MRC	NSK	SKF
51100	—	51100	—	51100	—	51100	51100
51200	—	51200	—	51200	—	51200	51200
900	1100	900	N1800	—	1100F	—	900
2900	1000	2900	1500	—	2900	—	2900



MOUNTED UNITS AND INSERT BEARINGS

NTN	HUB-CITY	DODGE	FAFNIR	NSK	PTC-LINKBELT	SEALMASTER	SKF
UCP	PB251*	SC	RASC	UCP	P3-U	NP	SY
UCPL	PB250	SCB	—	—	PL3-U	S-500M	—
UELP	PB221	SX	RAS	EWP	P3-Y	—	—
UELPL	PB220	SXB	RAK	—	PL3-Y	—	SYH-X
UCPX	PB350	SCM	RAKH	—	—	MP	—
ASPP	—	SL	—	UBPP	—	SSP	—
ASRPP	—	—	—	UBPPR	—	LRP	—
AELPP	—	SLX	PB	ENPP	—	—	SP
AELRPP	—	—	RPB	—	—	—	SRP
UCF	FB250*	SC	RCJC	UCF	F3-U	SF	FY
UCFL	FB260	SC	RCJTC	UCFL	FX3-U	SFT	—
UELFU	FB220	SX	RCJ	—	F3-Y	—	FY-X
UELFU	FB230	SX	RCJT	—	FX3-Y	—	—
UCFX	FB350	SCM	RCJO	—	—	MSF	—
UCFLX	—	SCM	—	—	—	MSFT	—
AELFD	—	—	FLCT	—	—	—	—
ASPF	—	SL	—	UBPF	—	SSF	—
ASPFL	—	SL	—	UBPFL	—	SSFT	—
AELPF	—	SLX	RA	ENPF	—	—	FP
AELPFL	—	SLX	RAT	ENPFL	—	—	FTP
AS	B100	—	—	UB	—	L	—
AEL	B200	—	RA-NPPB	EN	W200U	—	478200
UC	B250	—	GC-KRRB	UC	UG200NL	2-000	479200
UEL	B220	—	G-KRRB	EW	YG200N	—	477200
UCX	B350	—	—	—	—	3-000	—
ASS	—	—	—	—	—	SL	—
AELS	—	—	RA-NPP	—	WB200U	—	—
UCS	—	—	GC-KRRG	UR	UBG200NL	ER	—
UELS	—	—	G-KRR	—	YGB200N	—	—

SAF and SAFS PILLOW BLOCKS

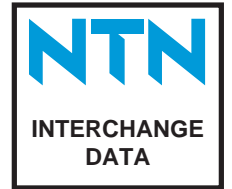
NTN	PTC-LINKBELT	SKF	TORRINGTON
SAF22500	P-LB6800(F)H	SAF22500	SAF22500A
SAF22600	P-LB6900(F)H	SAF22600	SAF22600A
SAF22200	P-LB7800(F)H	SAF22200	SAF22200
SAF22300	P-LB7900(F)H	SAF22300	SAF22300
SAF22500B6	P-LB6800FH	FSAF22500	FSAF22500A
SAFS22500	PK-LB6800FH	SAFS22500	SAFS22500A
SAFS22200	PK-LB7800FH	SAFS22200	SAFS22200



DISC HARROW BEARINGS			
NTN	FAFNIR	NDH	BCA
1AS08-7/8	W208PPB13	AS4508FF	DS208TT13
4AS08-7/8	W208PPB11	AS4508FC	DS208TT11
4AS08-7/8	W208PPB18	AS4508H	DS208TT11A
1AS08-1	W208PPB6	AS4508BK	DS208TT6
1AS08-1D1	GW208PPB6	RAS4508AE	DS208TTR6
2AS08-1	W208PPB9	AS4508BE	DS208TT9
4AS08-1	—	AS4508AC	DS208TTB
1AS08-1.1/8	W208PPB5	AS4508BJ	DS208TT5
2AS08-1.1/8	W208PPB8	AS4508EF	DS208TT8
2AS08-1.1/8D1	GW208PPB8	RAS4508EF	DS208TTR8
4AS08-1.1/8	W208PPB12	AS4508BC	DS208TT12B
4AS08-1.1/8	W208PPB19	AS4508F	DS208TT12A
1AS08-1.5/32D1	GW208PPB5	—	DS208TTR5
2AS09-1.1/4	W209PPB5	AS4509A	DS209TT5
4AS09-1.1/4	W209PPB7	AS4509AC	DS209TT7
2AS10-1.1/8	W210PPB6	—	—
3AS10-1.1/8	W210PPB4	—	DS210TT4
3AS11-1.1/2	W211PPB3	AS4511BE	DS211TT3
3AS11-1.1/2D1	GW211PPB3	RAS4511BE	DS211TTR3
4AS11-1.1/2	W211PPB6	AS4511AC	DS11TT6
3AS14-2.1/32D1	GW214PPB4	—	—
5AS08-1.1/8	W208PP5	AS4508BH	DC208TT5
6AS08-1.1/8	W208PP8	AS4508BD	DC208TT8
6AS09-1.1/4	—	AS4509AD	DC209TT5
6AS09-1.1/4D1	—	RAS4509AD	DC209TTR5
7AS10-1.1/8D1	GW210PP4	RAS4510B	DC210TTR4
6AS11-1.1/2V1	W211PP5	AS4511AE	DC211TT5
7AS11-1.1/2	W211PP3	AS4511BD	DC211TT3
7AS11-1.1/2D1	GW211PP3	RAS4511BD	DC211TTR3
1AC08-1.3/16	W208PPB7	—	DS208TT7
2AC08-1.1/2	W208PPB2	—	DS208TT2A
1AC09D1V1	GW209PPB11	—	DS209TTR10
3AC09	W209PPB2	AS4509BE	DS209TT2
3AC09D1	GW209PPB2	RAS4509BE	DS209TTR2
3AC09-1.1/2	W209PPB4	AS4509BD	DS209TT4
3AC09-1.1/2D1	GW209PPB4	RAS4509BD	DS209TTR4
3AC10-1.3/4	W210PPB5	—	DS210TT5
3AC10-1.3/4D1	GW210PPB5	—	DS210TTR5
3AC10-1.15/16	W210PPB2	—	DS210TT2
3AC10-1.15/16D1	GW210PPB2	—	DS210TTR2
1AC11-2.3/16D1V1	GW211PPB9	—	DS211TTR9
3AC11-2.3/16	W211PPB2	—	DS211TT2
3AC11-2.3/16D1	GW211PPB2	—	DS211TTR2
3AC14D1	GW214PPB2	—	—
5AC10-1.15/16V1	RM1115K	3210B	DC210
7AC10-1.15/16	W210PP2	—	DC210TT2
7AC11-2.3/16D1	GW211PP2	RAS4511C	DC211TTR2

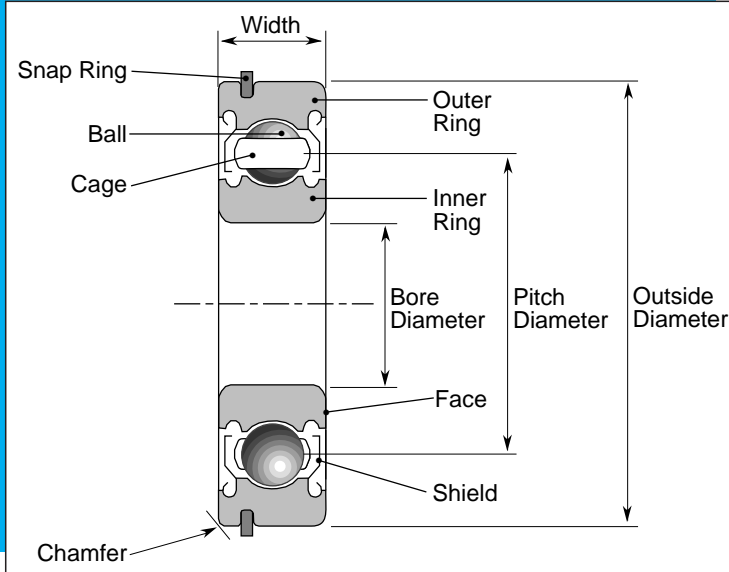
HEX BORE BEARINGS

NTN	FAFNIR	NDH	BCA
1AH04-11/16	204KRR2	—	—
1AH05-7/8	205KRR2	—	HPC014GP
2AH05-7/8	205KRRB2	—	HPS014GP
1AH06-1	206KRR6	88506J	HPC100GP
2AH06-1	206KRRB6	88506H	HPS100GP
2AH06-1D1	G206KRRB6	—	—
2AH07-1.1/8	207KRRB9	—	HPS102GP
2AH08-1.1/4V2	W208PPB16	—	—
2AH09-1.1/2	209KRRB2	—	—



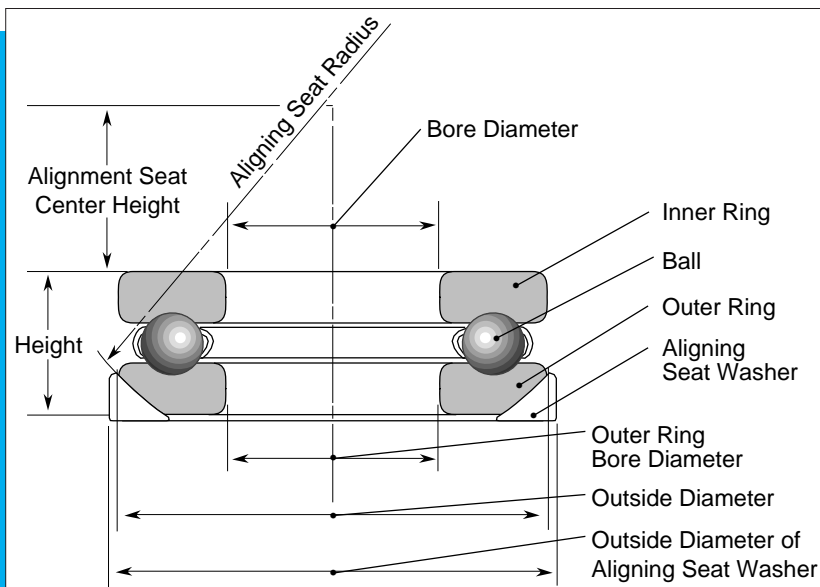
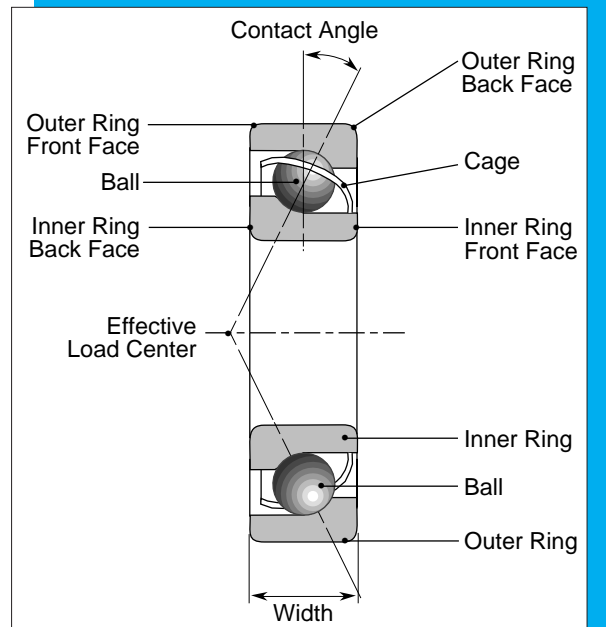


APPENDIX I
BEARING
NOMENCLATURE



SINGLE ROW DEEP
GROOVE BALL
BEARING

SINGLE ROW ANGULAR
CONTACT BALL
BEARING

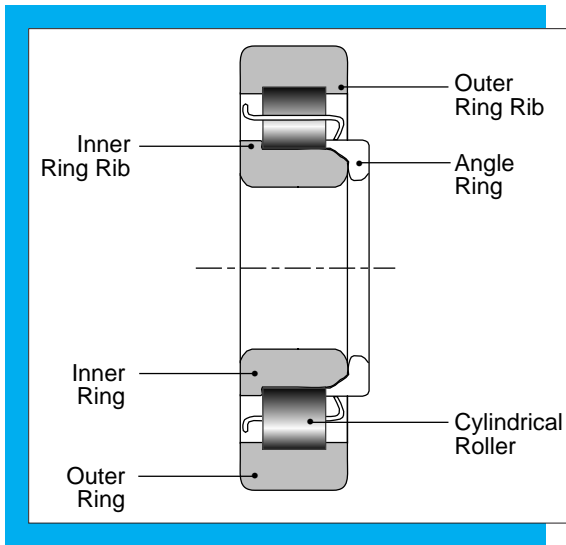
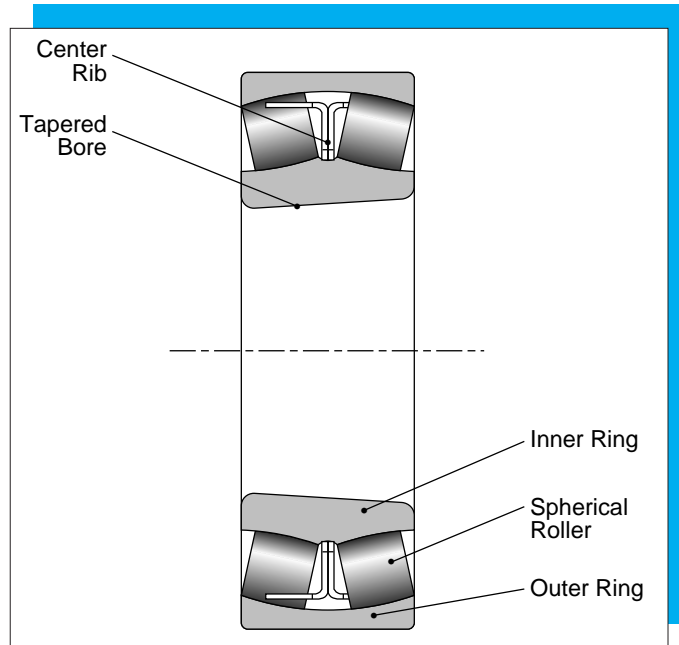


SINGLE DIRECTION
THRUST BALL
BEARING



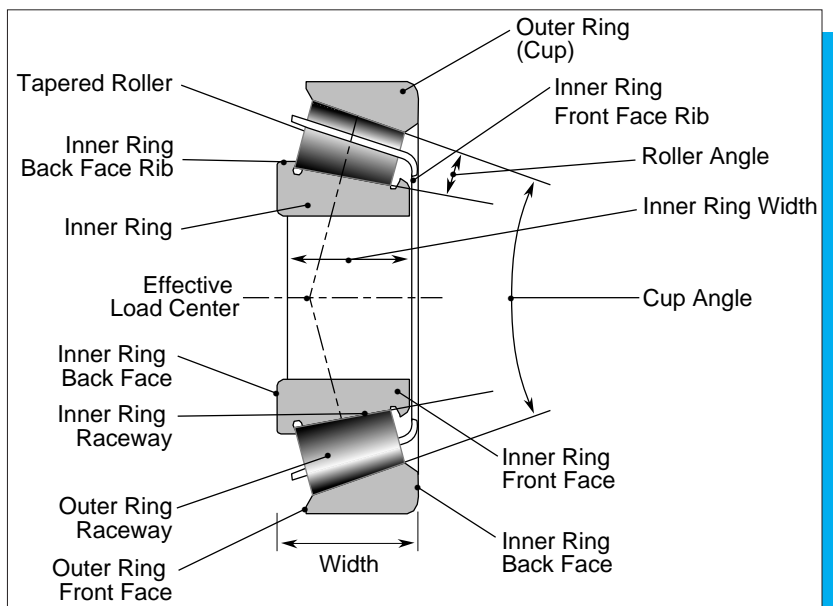
APPENDIX I
BEARING
NOMENCLATURE

SPHERICAL ROLLER BEARING

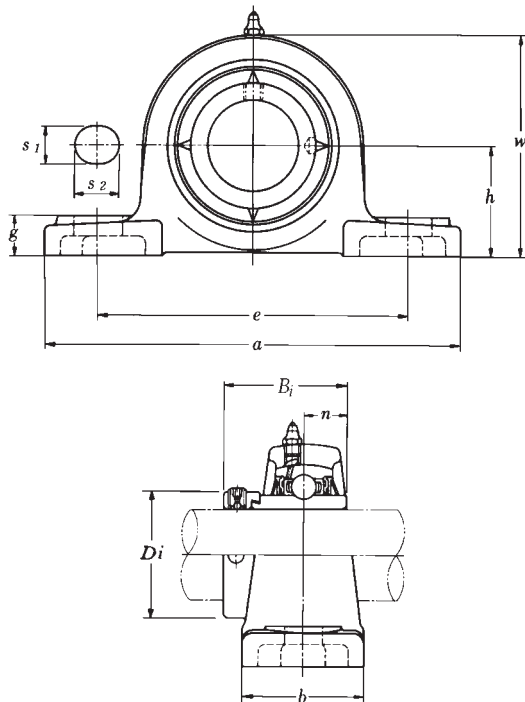


CYLINDRICAL ROLLER BEARING

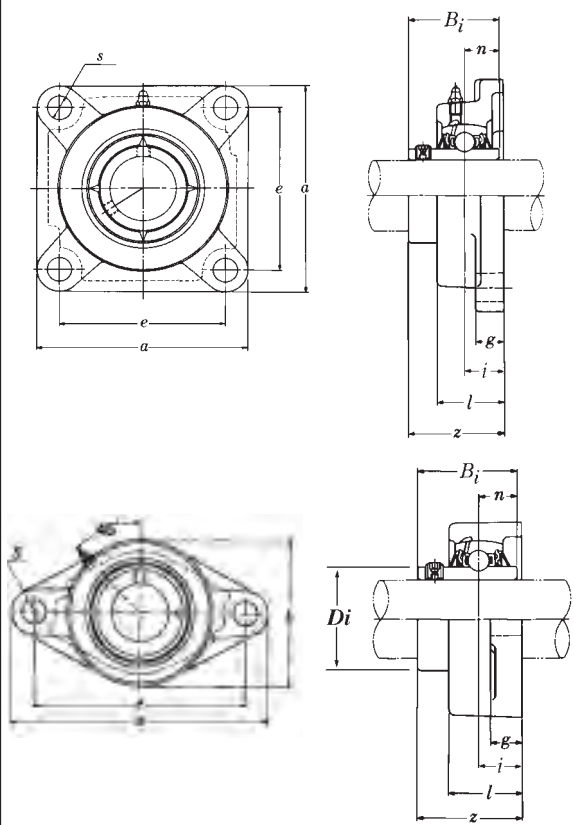
TAPERED ROLLER BEARING



PILLOW BLOCKS



FLANGE UNITS



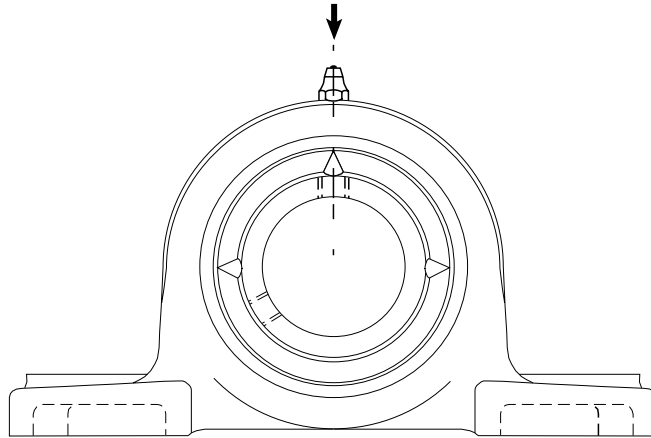
BEARING UNIT DIMENSION
NOMENCLATURE

- a = Total housing length
- b = Total housing width – flange units
- e = Bolt hole center-to-center distance
- s_1, s_2 = Bolt hole size, pillow blocks
- s = Bolt hole size, flange units
- Z = Total housing plus bearing depth
- l = Total housing depth – flange units
- i = Bearing ball center to housing rear depth
- N = Bearing ball center to bearing inner ring face
- B_i = Total bearing unit depth – flange units
- g = Flange depth and bolt hole depth
- w = Total bearing unit height – pillow blocks
- h = Bearing unit base to bearing bore center (Center Height) Pillow Blocks

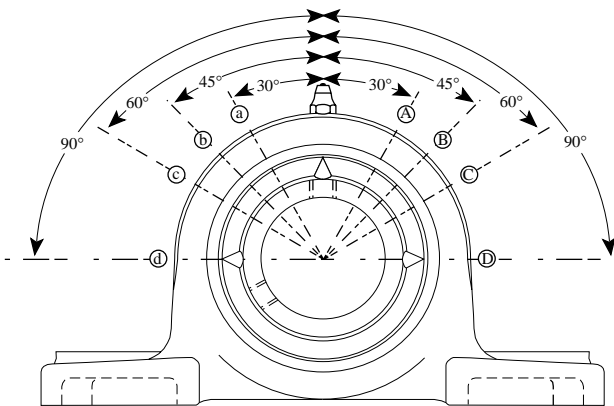


APPENDIX I
BEARING
NOMENCLATURE

STANDARD GREASE FITTINGS



QUASI-STANDARD GREASE FITTINGS



LOCATION OF GREASE FITTING			
Position	Direction	Rotation	Suffix
Ⓐ	*Clockwise	30°	(10)
Ⓑ	Clockwise	45°	(11)
Ⓒ	Clockwise	60°	(12)
Ⓓ	Clockwise	90°	(13)
ⓐ	**Counterclockwise	30°	(14)
ⓑ	Counterclockwise	45°	(15)
ⓒ	Counterclockwise	60°	(16)
ⓓ	Counterclockwise	90°	(17)

* ** Facing NTN Brand Marking on the housing.

Example: UCP205D1 (11) grease fitting on the location capital "B."



APPENDIX II BEARING RATINGS & FITTING PRACTICE

BEARING RATINGS

The following load rating information applies to radial, angular contact and tapered roller bearings, but not specifically to thrust bearings. When determining load ratings, remember that all ratings are not absolute.

STATIC LOAD RATING

The static load rating is the *Radial* load that will cause a certain amount of immediate damage to the internal operating surfaces of the bearing. This level of surface damage is acceptable in most cases but in some demanding situations may cause too much noise, so a much lower load limitation may be necessary. A higher load may be feasible if subsequent noise is not intolerable.

Actual noise levels are very dependent upon speed so if the speed is low, more surface damage can be accepted. Also, tolerable noise levels vary depending upon the application.

The static load rating has nothing to do with allowable *Axial* or *Thrust* loading. In most cases, axial ratings are much lower than those in this catalog so please consult NTN when such loads approach 25% of this rating.

DYNAMIC LOAD RATING

The dynamic load rating has no direct significance other than that it is a number which, along with speed, must be used in an equation to calculate theoretical bearing life. Load usage of this magnitude is usually very inappropriate. Life will be too short and the bearing may become noisy if the static load rating is exceeded. The rating can be used to compare different bearings if the life equations that apply to them are the same.

LIMITING SPEEDS

Limiting speeds are shown for oil and grease and contact seals when appropriate. However, many factors are omitted in this simplified rating that can affect the actual limit in a given case. Although many applications can run at much higher speeds, it is prudent to take precautions and consult NTN when speeds exceed 75% of the limit.



APPENDIX II BEARING RATINGS & FITTING PRACTICE

FITTING PRACTICE

The following five tables list the most likely suggestions for shaft and housing bore diameters for the more popular bearing series. The values in the tables provide the allowable deviations from the nominal diameters for most normal conditions.

UNUSUAL CONDITIONS

Different fits may be required for unusual conditions of loading, speed, temperature, housing or shaft material, wall thickness, vibration, poor surface finish and so on. For example, tighter fits are required for heavy loads, vibration, hollow shafts or thin housings, light alloy or plastic housings, etc. Consult NTN when in doubt.

ROTATING LOADS

The tables assume that the direction of load is constant. Where load rotates, reverse the rotating and stationary fits.

EFFECT ON CLEARANCES

The fits shown will usually work well with standard or C3 clearance bearings. Minor fit differences of .0001" or .0002" can usually be ignored but greater differences may require the use of other clearance classes.

AN EXAMPLE to illustrate the use of the tables:

A 6218 ball bearing has a **nominal** 90mm bore and a **nominal** inch bore of 3.5433". Assuming normal conditions, its shaft size is found in table 1. The 5th column, shows +7 to +1. These deviations applied to the **nominal** 3.5433" give a shaft size range of 3.5440" to 3.5434".



**APPENDIX II
BEARING
RATINGS & FITTING PRACTICE**

STANDARD SHAFT SIZES
Deviation from Nominal Sizes in Units of 0.0001 inch

Nominal Bearing Bore				Radial Loads									
				Pure Axial Loads		Stationary Shaft		Rotating Shaft					
mm	inch	over	incl					Ball Bearings		Cylindrical and Tapered Rollers		Spherical Rollers	
over	incl	over	incl	max	min	max	min	max	min	max	min	max	min
3	6	0.1181	0.2362	+2	-1	-2	-5	+1	-1				
6	10	0.2362	0.3937	+3	-1	-2	-6	+2	-1				
10	18	0.3937	0.7087	+3	-1	-2	-7	+2	-1	+4	0		
18	30	0.7087	1.1811	+4	-2	-3	-8	+4	+1	+4	+1		
30	40	1.1811	1.5748	+4	-2	-4	-10	+5	+1	+5	+1	+5	+1
40	50	1.5748	1.9685	+4	-2	-4	-10	+5	+1	+8	+4	+8	+4
50	65	1.9685	2.5591	+5	-3	-4	-11	+6	+1	+9	+4	+9	+4
65	80	2.5591	3.1496	+5	-3	-4	-11	+6	+1	+9	+4	+12	+4
80	100	3.1496	3.9370	+5	-4	-5	-13	+7	+1	+11	+5	+14	+5
100	120	3.9370	4.7244	+5	-4	-5	-13	+7	+1	+14	+5	+18	+9
120	140	4.7244	5.5118	+6	-4	-6	-15	+8	+1	+16	+6	+20	+11
140	180	5.5118	7.0866	+6	-4	-6	-15	+8	+1	+20	+11	+27	+17
180	250	7.0866	9.8425	+6	-5	-6	-17	+9	+2	+24	+12	+31	+20
250	280	9.8425	11.0236	+6	-6	-7	-19	+11	+2	+26	+13	+35	+22
280	315	11.0236	12.4016	+6	-6	-7	-19	+11	+2	+26	+13	+51	+39

TABLE 2 – TAPERED ROLLER BEARINGS (INCH SERIES)

Nominal Bearing Bore		Rotating Shaft		Stationary Shaft	
over	incl	max	min	max	min
0	3	+15	+10	0	-5
3	12	+25	+15	0	-10
12	24	+50	+30	0	-20

"J" prefix tapers are metric - see above.

TABLE 3 – INSERT BEARINGS SET SCREW & LOCKING COLLAR TYPES

Nominal Bearing Bore (Inches)		Low Speed		Medium Speed		High Speed	
over	incl	max	min	max	min	max	min
0	.7	0	-10	0	-7	+7	+3
.7	1.2	0	-13	0	-8	+7	+3
1.2	2.0	0	-15	0	-10	+10	+4
2.0	3.2	0	-18	0	-12	+12	+4
3.2	4.8	0	-21	0	-14	+14	+5
Speed = Bore x RPM		2500 max		3500 max		7000 max	



**APPENDIX II
BEARING
RATINGS & FITTING PRACTICE**

STANDARD HOUSING BORE SIZES
Deviation from Nominal Sizes in Units of 0.0001 inch

TABLE 4 – METRIC RADIAL BEARINGS											
Nominal Bearing O.D.				Stationary Housing				Rotating Housing			
mm		Inch		Normal		Heated Shaft		Normal		Thin Wall Housing	
over	incl	over	incl	max	min	max	min	max	min	max	min
10	18	0.3937	0.7087	+7	0	+10	+3	-2	-9	-4	-11
18	30	0.7087	1.1811	+8	0	+11	+3	-3	-11	-5	-13
30	50	1.1811	1.9685	+10	0	+14	+4	-3	-13	-6	-16
50	80	1.9685	3.1496	+12	0	+16	+4	-3	-15	-9	-21
80	120	3.1496	4.7244	+14	0	+19	+5	-4	-18	-11	-25
120	180	4.7244	7.0866	+16	0	+22	+6	-6	-22	-12	-28
180	250	7.0866	9.8425	+18	0	+24	+6	-8	-26	-14	-32
250	315	9.8425	12.4016	+20	0	+27	+7	-8	-28	-14	-34
315	400	12.4016	15.7480	+22	0	+29	+7	-8	-30	-17	-39
400	500	15.7480	19.6850	+25	0	+33	+8	-9	-34	-19	-44

TABLE 5 – TAPERED ROLLER BEARINGS (INCH SERIES)						
Nominal Cup O.D. Inch		Stationary Housing		Rotating Housing		
over	incl	max	min	max	min	
0	3	+10	0	-5	-15	
3	5	+10	0	-10	-20	
5	12	+20	0	-10	-20	
12	24	+30	+10	-10	-20	

“J” prefix tapers are metric - see above.



ENGLISH/METRIC CONVERSION CHART

WEIGHT			
1 ounce	= 28.35 grams (g)	1 gram	= .03527 ounces (oz.)
1 ounce	= .02835 kilograms (kg)	1 gram	= .002205 pounds (lb.)
1 ounce	= .0625 pounds (lb.)	1 kilogram	= 35.274 ounces (oz.)
1 pound	= 16 ounces (oz.)	1 kilogram	= 2.2046 pounds (lb.)
1 pound	= 453.6 grams (g)	1 kg per sq. cm	= 14.223 lb. per sq. inch
1 pound	= .4536 kilograms (kg)	1 kg per sq. meter	= .2048 lb. per sq. foot
1 lb. per sq. inch	= .070307 kg per sq. cm	1 kg per sq. meter	= 1.8433 lb. per sq. yard
1 lb. per sq. foot	= 4.8824 kg per sq. meter	1 g per cu. cm	= .57803 oz. per cu. inch
1 lb. per sq. yard	= .54249 kg per sq. meter	1 kg per cu. meter	= .062428 lb. per cu. foot
1 oz per cu. inch	= 1.7300 g per cu. cm		
1 lb. per cu. foot	= 16.019 kg per cu. meters		

LENGTH			
1 inch	= 25.400 millimeters (mm)	1 millimeter	= .03937 inches (in.)
1 inch	= 2.54 centimeters (cm)	1 centimeter	= .3937 inches (in.)
1 inch	= .08333 feet (ft.)	1 centimeter	= .01094 yards (yd.)
1 inch	= .02778 yards (yd.)	1 meter	= 3.2809 feet (ft.)
1 foot	= 12 inches (in.)	1 meter	= 1.0936 yards (yd.)
1 foot	= .333 yards (yd.)	1 kilometer (km)	= 3,281 feet (ft.)
1 foot	= .30481 meters (m)	1 kilometer (km)	= 1,094 yards (yd.)
1 yard	= 36 inches (in.)	1 kilometer (km)	= .6214 statute mile
1 yard	= 3 feet (ft.)		
1 yard	= 91.44 centimeters (cm)		
1 yard	= .9144 meters (m)		
1 statute mile	= 5,280 feet (ft.)		
1 statute mile	= 1,760 yards (yd.)		
1 statute mile	= 1.6093 kilometers (km)		

AREA			
1 sq. inch	= 6.4516 sq. centimeters	1 sq. centimeter	= .15500 sq. inches
1 sq. inch	= .00694 sq. feet	1 sq. centimeter	= .00108 sq. feet
1 sq. foot	= 144 sq. inches	1 sq. meter	= 10.764 sq. feet
1 sq. foot	= 929.03 sq. centimeters	1 sq. meter	= 1.196 sq. yards
1 sq. foot	= .1111 sq. yards		
1 sq. foot	= .092903 sq. meters		
1 sq. yard	= 9 sq. feet		
1 sq. yard	= .83612 sq. meters		

VOLUME			
1 cu. inch	= .0005787 cu. feet	1 cu. centimeter	= .06102 cu. inches
1 cu. inch	= .017316 quarts (qt.)	1 cu. meter	= 61.023 cu. inches
1 cu. inch	= .004329 gallons (gal.)	1 cu. meter	= 35.31 cu. feet
1 cu. inch	= 16.39 cu. centimeters	1 cu. meter	= 1.30873 cu. yards
1 cu. inch	= .0001639 cu. meters	1 liter	= 61.017 cu. inches
1 cu. inch	= .0164 liters (l)	1 liter	= .03531 cu. feet
1 cu. foot	= 1,728 cu. inches	1 liter	= 2.11327 pints (pt.)
1 cu. foot	= .0370 cu. yards	1 liter	= 1.057 quarts (qt.)
1 cu. foot	= 29.9222 quarts (qt.)	1 liter	= .2642 gallons (gal.)
1 cu. foot	= 7.481 gallons (gal.)		
1 cu. foot	= .0283 cu. meters		
1 cu. foot	= 28.32 liters (l)		
1 cu. yard	= 27 cu. feet		
1 cu. yard	= .76410 cu. meters		
1 pint	= .50 quarts (qt.)		
1 pint	= .4732 liters (l)		
1 quart	= 2 pints (pt.)		
1 quart	= .25 gallons		
1 quart	= 57.75 cu. inches		
1 quart	= .03342 cu. feet		
1 quart	= .9464 liters (l)		
1 gallon	= 231 cu. inches		
1 gallon	= .1337 cu. feet		
1 gallon	= 4 quarts (qt.)		

ENERGY AND POWER			
1 foot-pound	= .13826 kilogrammeter	1 kilogrammeter	= 7.2330 foot-pounds (ft.-lb.)
1 foot-pound	= .001285 Btu	1 Btu	= 778.2 foot pounds (ft.-lb.)
1 ft.-lb. per sec.	= .00182 horsepower (hp.)	1 Btu per min.	= .02358 horsepower (hp.)
1 ft.-lb. per min.	= .0000303 horsepower (hp.)	1 kilowatt	= 1.341 horsepower (hp.)
1 horsepower	= 550 ft.-lb. per sec.		
1 horsepower	= 33,000 ft.-lb. per min.		
1 horsepower	= 42.41 Btu per min.		
1 horsepower	= .7457 kilowatts (kw)		



DECIMAL EQUIVALENTS

2,4	8	16	32	64	Decimal	Inches	mm	mm	Inches
			1/32	1/64	.015625		.3969	26	1.02362
					.031250		.7938	27	1.06299
						.039370	1	28	1.10236
		1/16		3/64	.046875		1.1906	29	1.14173
					.062500		1.5875	30	1.18110
				5/64	.078125		1.9844	31	1.22047
						.078740	2	32	1.25984
			3/32		.093750		2.3812	33	1.29921
				7/64	.109375		2.7781	34	1.33858
						.118110	3	35	1.37795
	1/8			9/64	.125000		3.1750	36	1.41732
					.140625		3.5719	37	1.45669
					.156250		3.9688	38	1.49606
						.157480	4	39	1.53543
				11/64	.171875		4.3656	40	1.57480
		3/16			.187500		4.7625	41	1.61417
						.196850	5	42	1.65354
				13/64	.203125		5.1594	43	1.69291
			7/32		.218750		5.5562	44	1.73228
				15/64	.234375		5.9531	45	1.77165
1/4						.236220	6	46	1.81102
				17/64	.250000		6.3500	47	1.85039
					.265625		6.7469	48	1.88976
						.275591	7	49	1.92913
			9/32		.281250		7.1438	50	1.96850
		5/16		19/64	.296875		7.5406	51	2.00787
					.312500		7.9375	52	2.04724
						.314961	8	53	2.08661
				21/64	.328125		8.3344	54	2.12598
			11/32		.343750		8.7312	55	2.16535
	3/8					.354331	9	56	2.20472
				23/64	.359375		9.1281	57	2.24409
					.375000		9.5250	58	2.28346
				25/64	.390625		9.9219	59	2.32283
						.393701	10	60	2.36220
		7/16	13/32	27/64	.406250		10.3188	61	2.40157
					.421875		10.7156	62	2.44094
						.433071	11	63	2.48031
					.437500		11.1125	64	2.51969
				29/64	.453125		11.5094	65	2.55906
			15/32		.468750		11.9062	66	2.59843
						.472441	12	67	2.63780
1/2				31/64	.484375		12.3031	68	2.67717
					.500000		12.7000	69	2.71654
						.511811	13	70	2.75591
			17/32	33/64	.515625		13.0969	71	2.79528
					.531250		13.4938	72	2.83465
				35/64	.546875		13.8906	73	2.87402
						.551181	14	74	2.91339
		9/16			.562500		14.2875	75	2.95276
			19/32	37/64	.578125		14.6844	76	2.99213
						.590551	15	77	3.03150
					.593750		15.0812	78	3.07087
	5/8			39/64	.609375		15.4781	79	3.11024
					.625000		15.8750	80	3.14961
						.629921	16	81	3.18898
			21/32	41/64	.640625		16.2719	82	3.22835
					.656250		16.6688	83	3.26772
						.669291	17	84	3.30708
				43/64	.671875		17.0656	85	3.34646
		11/16			.687500		17.4625	86	3.38583
				45/64	.703125		17.8594	87	3.42520
						.708661	18	88	3.46457
			23/32		.718750		18.2562	89	3.50394
				47/64	.734375		18.6531	90	3.54331
						.748031	19	91	3.58268
3/4					.750000		19.0500	92	3.62205
					.765625		19.4469	93	3.66142
			25/32	49/64	.781250		19.8438	94	3.70079
						.787402	20	95	3.74016
		13/16		51/64	.796875		20.2406	96	3.77953
					.812500		20.6375	97	3.81890
						.826772	21	98	3.85827
				53/64	.828125		21.0344	99	3.89764
			27/32		.843750		21.4312	100	3.93701
				55/64	.859375		21.8281	110	4.33071
	7/8					.866142	22	120	4.72441
					.875000		22.2250	130	5.11811
				57/64	.890625		22.6219	140	5.51181
						.905512	23	150	5.90551
		15/16	29/32	59/64	.906250		23.0188	160	6.29921
					.921875		23.4156	170	6.69291
					.937500		23.8125	180	7.08661
						.944882	24	190	7.48031
				61/64	.953125		24.2094	200	7.87402
			31/32		.968750		24.6062	210	8.26772
						.984252	25	220	8.66142
				63/64	.984375		25.0031	230	9.05512