



# Deep groove ball bearings

**6200-2Z J/C3 HC5 GJN**

1      2      3      4      5

1. Seals, shields & snap rings:		2. Cage designs:		4. Suffix:	
<b>RSH</b>	Contact seal of synthetic rubber (NBR) on one side for bearings up to 52 mm O.D.	<b>J</b>	Pressed steel cage, ball guided (not marked on bearings)	<b>HC5</b>	Ceramic ball set
<b>RS1</b>	Contact seal of synthetic rubber (NBR) on one side for bearings above 52 mm O.D.	<b>M/MA</b>	Machined brass cage, rolling element guided	<b>VA201, VA208, VA228</b>	Special specifications for high temperature applications
<b>RS2</b>	Contact seal of synthetic rubber (FRM) on one side for high temperature capability	<b>TC</b>	Phenolic cage, inner ring guided		
<b>RSL</b>	Low friction seal of synthetic rubber (NBR) on one side for bearings up to 52 mm O.D.	<b>Y</b>	Pressed brass cage, ball guided		
<b>RZ</b>	Low friction seal of synthetic rubber (NBR) on one side for bearings above 52 mm O.D.	<b>TN9</b>	Cage of glass fiber reinforced polyamide 6,6, ball guided		
<b>Z</b>	Shield on one side				
<b>2RSH</b>	Contact seal of synthetic rubber (NBR) on both sides for bearings up to 52 mm O.D.	<b>3. Clearance/tolerance:</b>			
<b>2RS2</b>	Contact seal of synthetic rubber (FRM) on both sides for high temperature capability	<b>C1</b>	Clearance < C2		
<b>2RSL</b>	Low friction seal of synthetic rubber (NBR) on both sides for bearings up to 52 mm O.D.	<b>C2</b>	Clearance < Normal		
<b>2RZ</b>	Low friction seal of synthetic rubber (NBR) on both sides for bearings above 52 mm O.D.	<b>(C0)*</b>	Normal clearance		
<b>ZZ</b>	Shields on both sides	<b>C3</b>	Clearance > Normal		
<b>NR</b>	Snap ring groove and snap ring on outer ring	<b>C4</b>	Clearance > C3		
<b>N</b>	Snap ring groove	<b>C08</b>	ABEC5 running accuracy inner and outer		
<b>ZNBR</b>	Snap ring on opposite side of shield	<b>C78</b>	Combination of C70 and C08		
<b>JEM</b>	C3 clearance, Pressed steel cage, electric motor quietness specification, GJN grease for "bearings with closures.	<b>C70</b>	Reduced I.R. and O.R. diameter		
		<b>C782</b>	C78 and C2 clearance		
		<b>C783</b>	C78 and C3 clearance		
			* Not marked on bearing or package.		
			Note: C3 clearance, J-steel cages and quiet running characteristics available in JEM bearings. See page 35.		
				<b>5. Lubrication:</b>	
				<b>GJN</b>	High temperature, long life NLGI 2 grease with urea thickener and mineral oil (HT51 no longer available, replaced by GJN)
				<b>WT</b>	Wide temperature range, long life NLGI 2-3 grease with urea thickener and ester oil
				<b>LHT23</b>	Long life, quiet running NLGI 2 grease with lithium thickener and ester oil
				<b>MT47</b>	Medium temperature, quiet running NLGI 2 grease with lithium thickener and mineral oil
				<b>MT33</b>	Medium temperature, quiet running NLGI 3 grease with lithium thickener and mineral oil
				<b>LHT30</b>	Dow Corning Molykote™ 44 Medium
				<b>LHT64</b>	Shell Aeroshell #7, MIL-G-23827
				<b>W64</b>	Solid Oil
				<b>LT10</b>	Low temperature NLGI 2 grease with lithium thickener and diester oil

# Introduction

Technical features	
<b>Boundary dimensions</b>	In accordance with ISO 15
<b>Tolerances</b>	Normal, ABEC 1 P6 (SKF Explorer)
<b>Running accuracy</b>	Up to 52 mm O.D. – P5, ABEC 5 52 mm to 110 mm O.D. – P6, ABEC 3 >110 mm O.D. – Normal, ABEC 1
<b>Heat stabilization</b>	250° F (120° C)
<b>Misalignment</b>	2-10 minutes of arc
<b>Cage material</b>	
<b>Standard</b>	Steel
<b>Optional</b>	Machined brass (M)
<b>Axial load – max</b>	0.5 x C <sub>0</sub> for 6200, 6300 and 6400 series 0.25 x C <sub>0</sub> for 61800, 61900 and 6000 series
<b>Seals</b>	2RS1 – Synthetic rubber (NBR) seals 2RS2 – Synthetic rubber (FRM) seals
<b>Shields</b>	2Z – Stamped steel



*Single row  
deep groove ball bearing  
(data tables on page 40)  
and ABEC 5  
(data tables on page 54)*



*Single row  
deep groove ball bearing  
Max type  
(data tables on page 55)*

## Introduction

Deep groove ball bearings are used in a particularly wide variety of applications. They are relatively simple in design, non-separable, capable of operating at high and even very high speeds, and require little attention or maintenance in service provided the customer selects the appropriate bearing specifications for his application. These characteristics coupled with a price advantage make deep groove ball bearings the most popular of all rolling bearings.

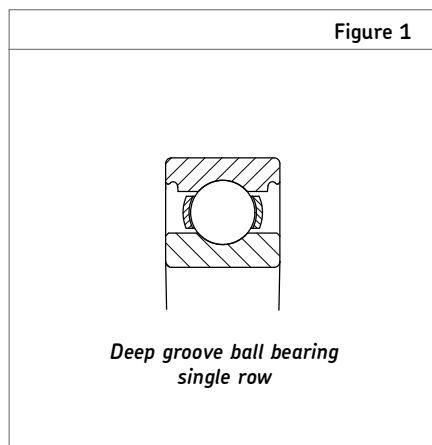
SKF produces deep groove ball bearings in a large number of designs and sizes. The most numerous are the single row bearings without filling slots (Conrad assembly). The bearings with filling slots described in the section starting on page 55 are used in special applications and consequently only a limited range is produced.

## Basic design

### Deep groove ball bearings, single row

SKF single row deep groove ball bearings have deep, uninterrupted raceways and a high degree of conformity between balls and raceways. This enables them to carry axial loads in both directions in addition to radial loads even at high speeds. Single row deep groove ball bearings are suitable for a wide variety of applications and are therefore produced in a large number of sizes and designs.

Single row deep groove ball bearings of the basic design, i.e. open at both sides, (Figure 1) are produced by SKF in several series and in a very wide range of diameters. Those bearings of the basic design which are also produced as shielded or sealed bearings may, for manufacturing reasons, have recessed outer ring shoulders to take the shields or seals.



### ABEC 5 single row bearings

SKF produces single row deep groove ball bearings in a higher precision class (ABEC 5). These products are most frequently used in high-speed applications or where precision is critical as in cutting tools, electric motors, handheld tools, and spindles. ABEC 5 bearings are produced in the 6200 and 6300 series and are available in an open version only. They can be supplied with either a brass (Y) or phenolic (TC) cage.

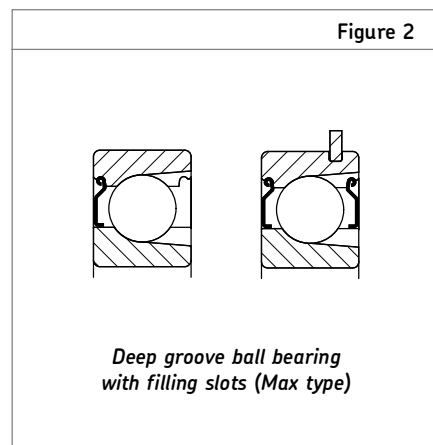
### Deep groove ball bearings with filling slots (Max type)

Single row deep groove ball bearings with filling slots incorporate a greater number of balls than the corresponding size without filling slot, and have a filling slot in both outer and inner rings. The radial load carrying capacity is higher than that of bearings without filling slot, but their axial load carrying capacity is small. They are also unable to operate at the high speeds normally associated with deep groove ball bearings.

SKF deep groove ball bearings with filling slots are available in various designs to meet market demands. The most common are described below (Figure 2) and are listed in the tables on page 55.

## SKF Explorer class bearings

High performance SKF Explorer deep groove ball bearings are printed in blue in the product tables. The higher performance of SKF Explorer deep groove ball bearings also includes quieter running. SKF Explorer bearings retain the designation of the earlier standard bearings. However, each bearing and its box are marked with the name "SKF Explorer". Additional details on SKF Explorer performance class bearings can be found on page 25.



## Product highlights

### Fast, quiet, robust bearings

If the application is demanding and quiet running, smoothness, strength and low heat generation are mandatory—SKF deep groove ball bearings fit the bill.

### Quiet running

High precision balls and specially designed raceway grinding equipment are used by SKF to produce some of the quietest running bearings available.

### Quality performance in demanding applications

Capable of meeting the severest demands in terms of operating speed, operating temperature, vibration, high running accuracy, low friction, and the ability to function in a contaminated environment with available seals and shields.

### Optimized internal geometry

The internal geometry has been optimized for longer life, quieter running, improved seal attachment, low friction and increased ability to accommodate slight misalignments without reducing bearing life.

### Large product assortment

Available in a wide range (2.5 to 800 mm inside bore diameter), the basic SKF design is available with a choice of shields, seals and snap rings. In addition, SKF produces max-type deep groove ball bearings with a filling slot.

### JEM bearings

In the USA, SKF offers bearings with C3 internal clearance, steel cages and quiet running characteristics packaged as JEM bearings.

### JEM packaging

The box will be marked "JEM" while the bearing is marked C3 and/or GJN pending if the bearing is open or capped.

### GJN grease provided as standard in JEM bearings

SKF provides GJN, a high temperature urea based grease, as the standard for all JEM deep groove ball bearings. GJN is accepted by major OEM electric motor manufacturers in the U.S. and offers a wide range of operating temperature and is quiet running.

# Introduction

## Variations

### Bearings with shields

Bearings with shields, designation suffix Z or 2Z, are produced in one of two designs, depending on the bearing series and size (Figure 3). The shields are made of sheet steel and normally have a cylindrical extension in the shield bore to form a long sealing gap with the inner ring shoulder.

Shielded bearings are primarily intended for applications where the inner ring rotates. If the outer ring rotates, there is a risk that the grease will leak from the bearing at high speeds.

### Bearings with low friction seals

SKF deep groove ball bearings with low-friction seals, designation suffixes RSL, 2RSL or RZ, 2RZ are manufactured in two designs depending on bearing series and size (Figure 4).

- Bearings in the 60, 62 and 63 series up to 52 mm outside diameter are equipped with RSL seals to design (a).
- Other bearings have RZ seals (b).

The seals form an extremely narrow gap with the cylindrical surface of the inner ring shoulder or recess profile and are practically non-contracting. Because of this, bearings fitted with low-friction seals can be operated at the same high speeds as bearings with Z shields, but with improved seal performance.

The low-friction seals are made of oil and wear-resistant acrylonitrile butadiene rubber (NBR) with a sheet steel reinforcement. The permissible operating temperature range for these seals is  $-40^{\circ}\text{F}$  ( $-40^{\circ}\text{C}$ ) and up to  $+212^{\circ}\text{F}$  ( $+100^{\circ}\text{C}$ ) and up to  $+250^{\circ}\text{F}$  ( $+120^{\circ}\text{C}$ ) for brief periods.

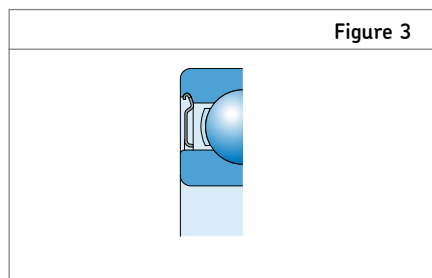


Figure 3

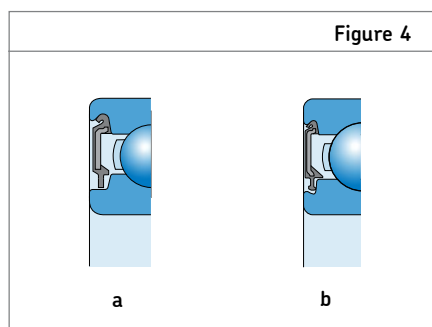


Figure 4

### Bearings with contact seals

Bearings with contact seals, designation suffixes RSH, 2RSH or RS1, 2RS1 are manufactured in three designs depending on bearing series and size (Figure 5).

- Bearings in the 60, 62 and 63 series up to 52 mm outside diameter are equipped with RSH seals to design (a).
- Other bearings have RS1 seals, which seal against the cylindrical surface of the inner ring shoulder (b) indicated by dimension d1 in the product table or against a recess in the inner ring side face (c) indicated by dimension d2 in the product table.

The seals are inserted in recesses in the outer ring and provide good sealing at this position without deforming the outer ring. Standard seals are made of acrylonitrile butadiene rubber (NBR) with a sheet steel reinforcement. The permissible operating temperature range for these seals is  $-40^{\circ}\text{F}$  ( $-40^{\circ}\text{C}$ ) and up to  $+250^{\circ}\text{F}$  ( $+120^{\circ}\text{C}$ ) for brief periods.

When sealed bearings are operated under extreme conditions, e.g. very high speeds or high temperatures, grease leakage may occur at the inner ring. For bearing arrangements where this would be detrimental, special design steps must be undertaken, please consult the SKF application engineering service.

### Bearings with snap ring groove

Deep groove ball bearings with a snap ring groove can simplify arrangement design as the bearings can be axially located in the housing by a snap (or retaining) ring (Figure 6). This saves space. Appropriate snap rings are shown in the product table with designation and dimensions and may be supplied separately or already mounted on the bearing.

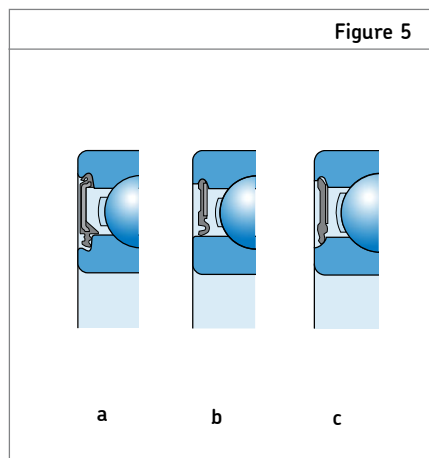


Figure 5

### Warning!

#### Safety precautions for fluoro rubber

Fluoro rubber is very stable and harmless in normal operating conditions up to  $+392^{\circ}\text{F}$  ( $+200^{\circ}\text{C}$ ). However, if exposed to extreme temperatures above  $+572^{\circ}\text{F}$  ( $+300^{\circ}\text{C}$ ), e.g. fire or the flame of a cutting torch, fluoro rubber seals give off hazardous fumes. These fumes can be harmful if inhaled, as well as to the eyes. In addition, once the seals have been heated to such temperatures, they are dangerous to handle even after they have cooled and should not touch the skin. If it is necessary to handle bearings with seals that have been subjected to high temperatures, such as when dismantling the bearing, the following safety precautions should be observed:

- Always wear protective goggles, gloves and appropriate breathing apparatus,
- Place the remains of the seals in an airtight plastic container marked with a symbol for "material will etch",
- Follow the safety precautions in the appropriate material safety data sheet (MSDS).

If there is unintentional contact with the seals, wash hands with soap and plenty of water and flush eyes with plenty of water and consult a doctor immediately. If the fumes have been inhaled, consult a doctor immediately.

The user is responsible for the correct use of the product during its service life and its proper disposal. SKF takes no responsibility for the improper handling of fluoro rubber seals or for any injury resulting from their use.

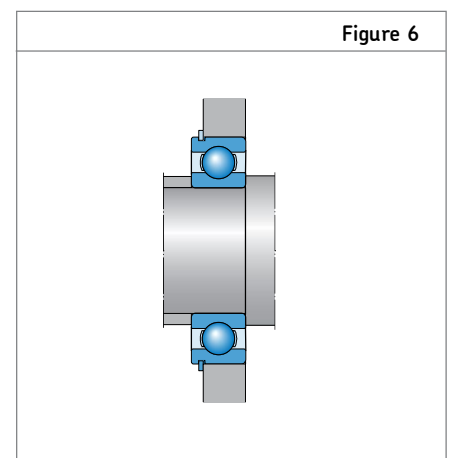


Figure 6

# Introduction

## Lubrication

Bearings with shields or seals at both sides are supplied as standard filled with a grease which has good rust inhibiting properties and which is suitable for operating temperatures between -22° and +230° F (-30° to +110° C). The bearings are lubricated for life and are maintenance free. **They should on no account be heated to temperatures above 250° F (120° C), nor should they be washed.** By special order, bearings with shields or seals can be supplied with other greases, e.g. for a temperature range of -40° to +300° F (-40° to +150° C).

The quantity of grease supplied is appropriate to the size of the bearing and normally fills between 25 and 35% of the free space in the bearing. Open

bearings are supplied with a rust preservative that is compatible with most standard greases and should not be removed prior to mounting or lubricating.

## Masses

The masses given in the tables are for the basic design of the bearing. The mass of bearings with shield(s), seal(s) or snap ring groove differs only slightly from that of the basic bearing.

## Internal clearance

### Radial internal clearance (Table 1)

SKF single row deep groove ball bearings are produced with Normal radial internal clearance (CN

or CO not marked on bearing) as standard. Radial clearance selection is based on factors such as high speed, operating temperature, shaft fits and axial movement limitations. The availability of bearings with clearances other than Normal should be checked before ordering. The suffix JEM indicates an internal clearance greater than Normal (C3). Many of the bearings, particularly the smaller sizes, are also available with radial internal clearance, which is greater than (C3) or less than (C2) Normal.

The values of the clearance limits for single row deep groove ball bearings are shown in **Table 1** and the values of the clearance limits for max type ball bearings are shown in **Table 3** on page 38. Both conform to ISO 5753-1991 (ABMA standard 20-1996) for the size range covered by this standard. The values apply to unmounted bearings under zero measuring load.

Table 1

### Radial internal clearance of deep groove ball bearings

Bore diameter d		Radial internal clearance																					
over mm	incl. mm	C2				Normal				C3				C4				C5					
		min µm	max µm	min in	max in	min µm	max µm	min in	max in	min µm	max µm	min in	max in	min µm	max µm	min in	max in	min µm	max µm	min in	max in		
2.5	6	0	7	0.0000	0.2756	2	13	0.0787	0.5118	8	23	0.3150	0.9055	-	-	-	-	-	-	-	-	-	-
6	10	0	7	0.0000	0.2756	2	13	0.0787	0.5118	8	23	0.3150	0.9055	14	29	0.5512	1.1417	20	37	0.7874	1.4567		
10	18	0	9	0.0000	0.3543	3	18	0.1181	0.7087	11	25	0.4331	0.9843	18	33	0.7087	1.2992	25	45	0.9843	1.7717		
18	24	0	10	0.0000	0.3937	5	20	0.1969	0.7874	13	28	0.5118	1.1024	20	36	0.7874	1.4173	28	48	1.1024	1.8898		
24	30	1	11	0.0394	0.4331	5	20	0.1969	0.7874	13	28	0.5118	1.1024	23	41	0.9055	1.6142	30	53	1.1811	2.0866		
30	40	1	11	0.0394	0.4331	6	20	0.2362	0.7874	15	33	0.5906	1.2992	28	46	1.1024	1.8110	40	64	1.5748	2.5197		
40	50	1	11	0.0394	0.4331	6	23	0.2362	0.9055	18	36	0.7087	1.4173	30	51	1.1811	2.0079	45	73	1.7717	2.8740		
50	65	1	15	0.0394	0.5906	8	28	0.3150	1.1024	23	43	0.9055	1.6929	38	61	1.4961	2.4016	55	90	2.1654	3.5433		
65	80	1	15	0.0394	0.5906	10	30	0.3937	1.1811	25	51	0.9843	2.0079	46	71	1.8110	2.7953	65	105	2.5591	4.1339		
80	100	1	18	0.0394	0.7087	12	36	0.4724	1.4173	30	58	1.1811	2.2835	53	84	2.0866	3.3071	75	120	2.9528	4.7244		
100	120	2	20	0.0787	0.7874	15	41	0.5906	1.6142	36	66	1.4173	2.5984	61	97	2.4016	3.8189	90	140	3.5433	5.5118		
120	140	2	23	0.0787	0.9055	18	48	0.7087	1.8898	41	81	1.6142	3.1890	71	114	2.7953	4.4882	105	160	4.1339	6.2992		
140	160	2	23	0.0787	0.9055	18	53	0.7087	2.0866	46	91	1.8110	3.5827	81	130	3.1890	5.1181	120	180	4.7244	7.0866		
160	180	2	25	0.0787	0.9843	20	61	0.7874	2.4016	53	102	2.0866	4.0157	91	147	3.5827	5.7874	135	200	5.3150	7.8740		
180	200	2	30	0.0787	1.1811	25	71	0.9843	2.7953	63	117	2.4803	4.6063	107	163	4.2126	6.4173	150	230	5.9055	9.0551		
200	225	2	35	0.0787	1.3780	25	85	0.9843	3.3465	75	140	2.9528	5.5118	125	195	4.9213	7.6772	175	265	6.8898	10.4331		
225	250	2	40	0.0787	1.5748	30	95	1.1811	3.7402	85	160	3.3465	6.2992	145	225	5.7087	8.8583	205	300	8.0709	11.8110		
250	280	2	45	0.0787	1.7717	35	105	1.3780	4.1339	90	170	3.5433	6.6929	155	245	6.1024	9.6457	225	340	8.8583	13.3858		
280	315	2	55	0.0787	2.1654	40	115	1.5748	4.5276	100	190	3.9370	7.4803	175	270	6.8898	10.6299	245	370	9.6457	14.5669		
315	355	3	60	0.1181	2.3622	45	125	1.7717	4.9213	110	210	4.3307	8.2677	195	300	7.6772	11.8110	275	410	10.8268	16.1417		
355	400	3	70	0.1181	2.7559	55	145	2.1654	5.7087	130	240	5.1181	9.4488	225	340	8.8583	13.3858	315	460	12.4016	18.1102		
400	450	3	80	0.1181	3.1496	60	170	2.3622	6.6929	150	270	5.9055	10.6299	250	380	9.8425	14.9606	350	520	13.7795	20.4724		
450	500	3	90	0.1181	3.5433	70	190	2.7559	7.4803	170	300	6.6929	11.8110	280	420	11.0236	16.5354	390	570	15.3543	22.4409		
500	560	10	100	0.3937	3.9370	80	210	3.1496	8.2677	190	330	7.4803	12.9921	310	470	12.2047	18.5039	440	630	17.3228	24.8031		
560	630	10	110	0.3937	4.3307	90	230	3.5433	9.0551	210	360	8.2677	14.1732	340	520	13.3858	20.4724	490	700	19.2913	27.5591		
630	710	20	130	0.7874	5.1181	110	260	4.3307	10.2362	240	400	9.4488	15.7480	380	570	14.9606	22.4409	540	780	21.2598	30.7087		
710	800	20	140	0.7874	5.5118	120	290	4.7244	11.4173	270	450	10.6299	17.7165	430	630	16.9291	24.8031	600	860	23.6220	33.8583		
800	900	20	160	0.7874	6.2992	140	320	5.5118	12.5984	300	500	11.8110	19.6850	480	700	18.8976	27.5591	670	960	26.3780	37.7953		
900	1 000	20	170	0.7874	6.6929	150	350	5.9055	13.7795	330	550	12.9921	21.6535	530	770	20.8661	30.3150	740	1040	29.1339	40.9449		
1 000	1 120	20	180	0.7874	7.0866	160	380	6.2992	14.9606	360	600	14.1732	23.6220	580	850	22.8346	33.4646	820	1150	32.2835	45.2756		
1 120	1 250	20	190	0.7874	7.4803	170	410	6.6929	16.1417	390	650	15.3543	25.5906	630	920	24.8031	36.2205	890	1260	35.0394	49.6063		
1 250	1 400	30	200	1.1811	7.8740	190	440	7.4803	17.3228	420	700	16.5354	27.5591	680	1000	26.7717	39.3701	-	-	-	-		
1 400	1 600	30	210	1.1811	8.2677	210	470	8.2677	18.5039	450	750	17.7165	29.5276	730	1060	28.7402	41.7323	-	-	-	-		

# Introduction

## Loads

### Equivalent dynamic bearing load for single bearings, Conrad type

$$P = F_r \text{ when } F_a / F_r \leq e$$

$$P = X F_r + Y F_a \text{ when } F_a / F_r > e$$

where

$P$  = equivalent dynamic bearing load

$F_r$  = radial load acting on the bearing

$F_a$  = axial load acting on the bearing

$X$ ,  $Y$  and  $e$  = factors from **Table 2**

The  $X$  and  $Y$  factors required for the calculation of the equivalent bearing load of deep groove ball bearings are dependent on the ratio of the axial load  $F_a$  to the basic static load rating  $C_0$ . They are also influenced by the magnitude of the radial internal clearance; increased clearance enables heavier axial loads to be carried.

If the bearings are mounted with the usual fits (tolerance j5 to n6 depending on shaft diameter, and J7 for the housing) the values of  $e$ ,  $X$  and  $Y$  given in **Table 2** can be used to calculate the equivalent load. If a clearance greater than Normal is chosen because a reduction in clearance will be obtained in operation, for example, as a result of strong heating of the inner ring, then the values of the factors under Normal clearance should be used.

### Equivalent dynamic bearing load for single row deep groove ball bearings with filling slots

$$P = F_r + F_a \text{ provided } F_a / F_r \leq 0.6$$

Bearings with filling slots are unsuitable for axial loads  $F_a$  greater than  $0.6 F_r$  and deep groove ball bearings without filling slot should be used instead.

## Minimum load

**In order to provide satisfactory operation of all ball and roller bearings they must always be subjected to a given minimum load.**

This is also true of deep groove ball bearings, particularly if they run at high speeds where the inertia forces of the balls and cage, and the friction in the lubricant can have a detrimental influence on the rolling conditions in the bearing and may cause damaging sliding movements to occur between the balls and the raceways.

The requisite minimum radial load to be applied in such cases can be determined by using the Interactive Engineering Catalog on the SKF website [www.skf.com](http://www.skf.com) or by contacting SKF Applications Engineering.

However, the weight of the components supported by the bearing, together with the external forces, often exceeds the requisite minimum load. If this is not the case, an additional radial load must be applied to the bearing; for example, by increasing belt tension, by applying a preload to the inner or outer rings, or by using springs.

## Frequency vibration data

Frequency vibration data is available on the SKF website [www.skf.com](http://www.skf.com) under Knowledge Centre/Engineering tools and CAD, or by contacting SKF Applications Engineering.

## Special solutions using deep groove ball bearings

- Bearings with inch boundary dimensions
- High temperature (kiln truck) bearings for extreme temperatures
- Stainless steel bearings for water/moist environments
- INSOCOAT for electrically insulating a bearing from stray current
- Bearings with ceramic balls for extreme speed or electrical insulation
- Double row deep groove (4200 series) for increased load

**Details on these special solution products are available in other SKF publications, which can be supplied upon request.**

Table 2

### Calculation factors for single row deep groove ball bearings

Single bearings and bearing pairs in tandem

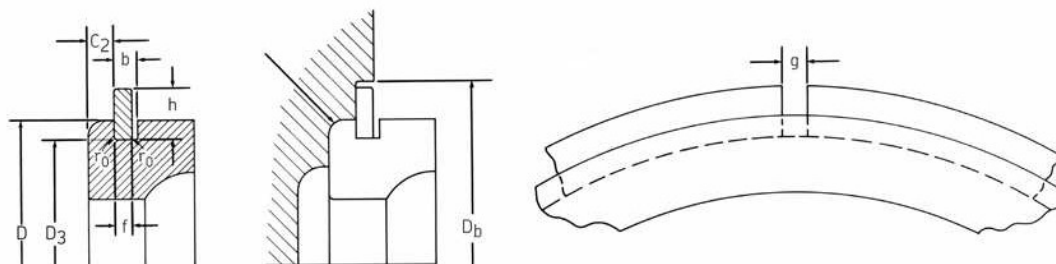
$F_a/C_0$	Normal clearance			C3 clearance			C4 clearance		
	$e$	$X$	$Y$	$e$	$X$	$Y$	$e$	$X$	$Y$
0.025	0.22	0.56	2.0	0.31	0.46	1.75	0.4	0.44	1.42
0.04	0.24	0.56	1.8	0.33	0.46	1.62	0.42	0.44	1.36
0.07	0.27	0.56	1.6	0.36	0.46	1.46	0.44	0.44	1.27
0.13	0.31	0.56	1.4	0.41	0.46	1.30	0.48	0.44	1.16
0.25	0.37	0.56	1.2	0.46	0.46	1.14	0.53	0.44	1.05
0.5	0.44	0.56	1.0	0.54	0.46	1.00	0.56	0.44	1.00

Table 3

### Radial internal clearance of deep groove ball bearings with filling slots

Bore diameter $d$	Radial internal clearance													
			C2				Normal				C3			
	over	incl.	min	max	min	max	min	max	min	max	min	max	min	max
mm		$\mu\text{m}$	in	$\mu\text{m}$	in	$\mu\text{m}$	in	$\mu\text{m}$	in	$\mu\text{m}$	in	$\mu\text{m}$	in	
18	24	0	10	0.0000	0.0004	5	20	0.0002	0.0008	13	28	0.0005	0.0011	
24	30	1	11	0.0000	0.0004	5	20	0.0002	0.0008	13	28	0.0005	0.0011	
30	40	1	11	0.0000	0.0004	6	20	0.0002	0.0008	15	33	0.0006	0.0013	
40	50	1	11	0.0000	0.0004	6	23	0.0002	0.0009	18	36	0.0007	0.0014	
50	65	1	15	0.0000	0.0006	8	28	0.0003	0.0011	23	43	0.0009	0.0017	
65	80	1	15	0.0000	0.0006	10	30	0.0004	0.0012	25	51	0.0010	0.0020	
80	100	1	18	0.0000	0.0007	12	36	0.0005	0.0014	30	58	0.0012	0.0023	

# Introduction



Snap ring and snap ring groove dimensions

Table 4

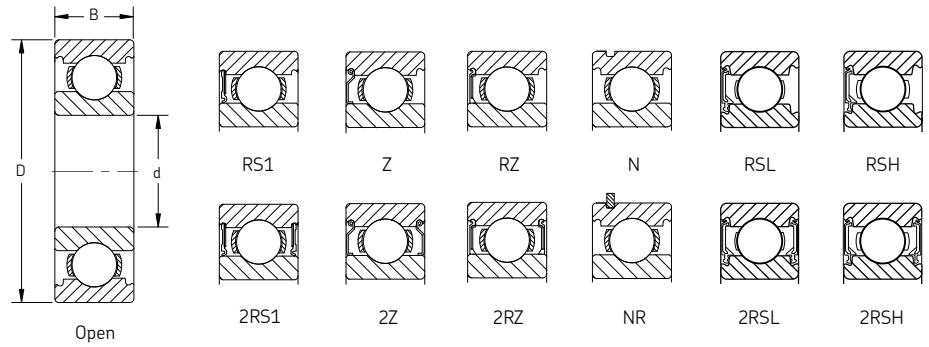
## Snap ring and groove dimensions - ball bearings

Outer ring O.D.		Groove dia. max.		Groove location		Groove width		Fillet radius		Ring thickness		Ring section height		Ring gap		End cover	
D		D <sub>3</sub>		C <sub>2</sub>		b		r <sub>0</sub>		f		h		g		D <sub>b</sub>	
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
40	1.5748	38.10	1.500	2.06	0.081	1.35	0.053	0.4	0.016	1.12	0.044	3.25	0.128	3	0.12	45	1.8
47	1.8504	44.60	1.756	2.46	0.097	1.35	0.053	0.4	0.016	1.12	0.044	4.04	0.159	4	0.15	53	2.1
52	2.0472	49.73	1.958	2.46	0.097	1.35	0.053	0.4	0.016	1.12	0.044	4.04	0.159	4	0.15	58	2.3
62	2.4409	59.61	2.347	3.28	0.129	1.90	0.075	0.6	0.024	1.70	0.067	4.04	0.159	4	0.15	68	2.7
72	2.8346	68.81	2.709	3.28	0.129	1.90	0.075	0.6	0.024	1.70	0.067	4.85	0.191	5	0.19	80	3.1
80	3.1496	76.81	3.024	3.28	0.129	1.90	0.075	0.6	0.024	1.70	0.067	4.85	0.191	5	0.19	88	3.5
85	3.3464	81.81	3.221	3.28	0.129	1.90	0.075	0.6	0.024	1.70	0.067	4.85	0.191	5	0.19	93	3.7
90	3.5400	86.79	3.417	3.28	0.129	2.70	0.106	0.6	0.024	2.46	0.097	4.85	0.191	5	0.19	98	3.9
100	3.9370	96.80	3.811	3.28	0.129	2.70	0.106	0.6	0.024	2.46	0.097	4.85	0.191	5	0.19	108	4.3
110	4.3307	106.81	4.205	3.28	0.129	2.70	0.106	0.6	0.024	2.46	0.097	4.85	0.191	5	0.19	118	4.6
120	4.7244	115.21	4.536	4.06	0.160	3.10	0.122	0.6	0.024	2.82	0.111	7.21	0.284	7	0.28	131	5.2
125	4.9210	120.22	4.733	4.06	0.160	3.10	0.122	0.6	0.024	2.82	0.111	7.21	0.284	7	0.28	136	5.4
130	5.1181	125.22	4.930	4.06	0.160	3.10	0.122	0.6	0.024	2.82	0.111	7.21	0.284	7	0.28	141	5.6
140	5.5118	135.23	5.324	4.90	0.193	3.10	0.122	0.6	0.024	2.82	0.111	7.21	0.284	7	0.28	151	5.9
150	5.9055	145.24	5.718	4.90	0.193	3.10	0.122	0.6	0.024	2.82	0.111	7.21	0.284	7	0.28	161	6.3
160	6.2992	155.22	6.111	4.90	0.193	3.10	0.122	0.6	0.024	2.82	0.111	7.21	0.284	7	0.28	171	6.7
170	6.6929	163.65	6.443	5.69	0.224	3.50	0.138	0.6	0.024	3.10	0.122	9.60	0.378	10	0.39	184	7.2
180	7.0866	173.66	6.837	5.69	0.224	3.50	0.138	0.6	0.024	3.10	0.122	9.60	0.378	10	0.39	194	7.6
190	7.4803	183.64	7.230	5.69	0.224	3.50	0.138	0.6	0.024	3.10	0.122	9.60	0.378	10	0.39	204	8.0
200	7.8740	193.65	7.624	5.69	0.224	3.50	0.138	0.6	0.024	3.10	0.122	9.60	0.378	10	0.39	214	8.4

Note: Does not include 6000 series bearings



Single row  
 Conrad  
 Open, sealed, shielded and snap ring  
 Standard and **SKF Explorer**  
 Series: 604 – 6028  
 Size: 4 mm – 140 mm  
 0.1575 in – 5.1118 in



Designation	Principal dimensions						Basic load ratings				Speed rating <sup>1</sup>			Mass	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Refer- ence speed	Sealed Limiting speed		kg	lb
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min	r/min		
604	4	0.1575	12	0.4724	4	0.1575	806	180	280	60	120 000	75 000	–	0.00	0.01
607	7	0.2756	19	0.7480	6	0.2362	2 340	530	950	210	85 000	53 000	24 000	0.01	0.02
608	8	0.3150	22	0.8661	7	0.2756	3 450	780	1 370	310	75 000	48 000	22 000	0.01	0.03
609	9	0.3543	24	0.9449	7	0.2756	3 900	880	1 660	370	70 000	43 000	19 000	0.01	0.03
6000	10	0.3937	26	1.0236	8	0.3150	4 750	1 070	1 960	440	67 000	40 000	19 000	0.02	0.04
6001	12	0.4724	28	1.1024	8	0.3150	5 400	1 210	2 360	530	60 000	38 000	17 000	0.02	0.05
6002	15	0.5906	32	1.2598	9	0.3543	5 850	1 310	2 850	640	50 000	32 000	14 000	0.03	0.07
6003	17	0.6693	35	1.3780	10	0.3937	6 370	1 430	3 250	730	45 000	28 000	13 000	0.04	0.08
6004	20	0.7874	42	1.6535	12	0.4724	9 950	2 240	5 000	1 120	38 000	24 000	11 000	0.07	0.15
6005	25	0.9843	47	1.8504	12	0.4724	11 900	2 670	6 550	1 470	32 000	20 000	9 500	0.08	0.17
6006	30	1.1811	55	2.1654	13	0.5118	13 800	3 100	8 300	1 870	28 000	17 000	8 000	0.12	0.26
6007	35	1.3780	62	2.4409	14	0.5512	16 800	3 780	10 200	2 290	24 000	15 000	7 000	0.15	0.34
6008	40	1.5748	68	2.6772	15	0.5906	17 800	4 000	11 000	2 470	22 000	14 000	6 300	0.19	0.42
6009	45	1.7717	75	2.9528	16	0.6299	22 100	4 970	14 600	3 280	20 000	12 000	5 600	0.24	0.54
6010	50	1.9685	80	3.1496	16	0.6299	22 900	5 150	16 000	3 600	18 000	11 000	5 000	0.26	0.58
6011	55	2.1654	90	3.5433	18	0.7087	29 600	6 650	21 200	4 760	16 000	10 000	4 500	0.38	0.85
6012	60	2.3622	95	3.7402	18	0.7087	30 700	6 900	23 200	5 210	15 000	9 500	4 300	0.41	0.91
6013	65	2.5591	100	3.9370	18	0.7087	31 900	7 170	25 000	5 620	14 000	9 000	4 000	0.44	0.96
6014	70	2.7559	110	4.3307	20	0.7874	39 700	8 920	31 000	6 970	13 000	8 000	3 600	0.61	1.35
6015	75	2.9528	115	4.5276	20	0.7874	41 600	9 350	33 500	7 530	12 000	7 500	3 400	0.65	1.43
6016	80	3.1496	125	4.9213	22	0.8661	49 400	11 100	40 000	8 990	11 000	7 000	3 200	0.86	1.89
6017	85	3.3465	130	5.1181	22	0.8661	52 000	11 690	43 000	9 660	11 000	6 700	3 000	0.90	1.99
6018	90	3.5433	140	5.5118	24	0.9449	60 500	13 600	50 000	11 240	10 000	6 300	2 800	1.16	2.56
6019	95	3.7402	145	5.7087	24	0.9449	63 700	14 310	54 000	12 130	9 500	6 000	2 800	1.21	2.67
6020	100	3.9370	150	5.9055	24	0.9449	63 700	14 310	54 000	12 130	9 500	5 600	2 600	1.26	2.78
6021	105	4.1339	160	6.2992	26	1.0236	76 100	17 100	65 500	14 720	8 500	5 300	2 400	1.60	3.53
6022	110	4.3307	170	6.6929	28	1.1024	85 200	19 150	73 500	16 520	8 000	5 000	2 400	1.97	4.34
6024	120	4.7244	180	7.0866	28	1.1024	88 400	19 870	80 000	17 980	7 500	4 800	2 200	2.10	4.64
6026	130	5.1181	200	7.8740	33	1.2992	112 000	25 170	100 000	22 470	7 000	4 300	2 000	3.28	7.23
6028	140	5.5118	210	8.2677	33	1.2992	111 000	24 940	108 000	24 270	6 700	4 000	1 800	3.45	7.61

<sup>1</sup> For shielded limiting speed ratings, contact SKF Applications Engineering.

Consult SKF USA Inc. prior to design change or order placement.



Single row

Conrad

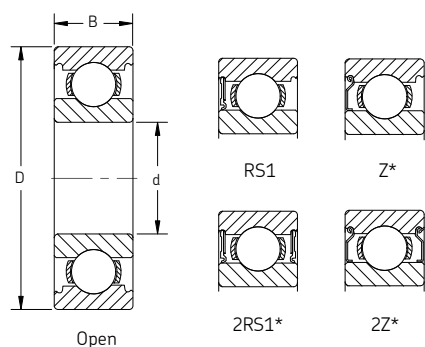
Open, sealed, shielded and snap ring

Standard

Series: 6030 – 60/800 N1MAS

Size: 150 mm – 800 mm

5.9055 in – 31.4961 in



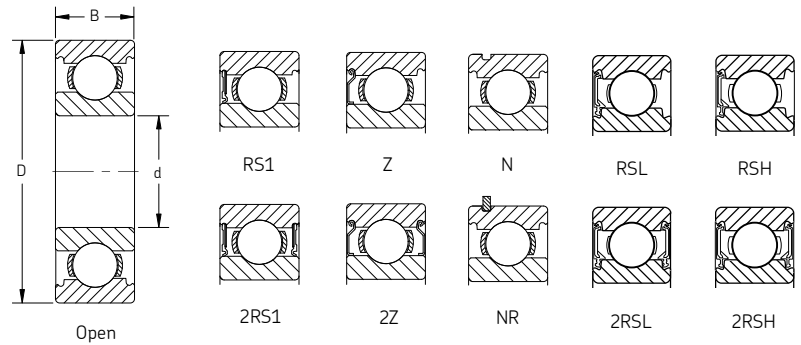
Designation	Principal dimensions						Basic load ratings				Speed rating <sup>1</sup>			Mass	
	Bore		Outside diameter		Width		Dynamic		Static		Refer- ence speed	Limiting speed	Sealed Limiting speed		
	d		D		B		C		C <sub>0</sub>						
mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min	r/min	kg	lb	
6030	150	5.9055	225	8.8583	35	1.3780	125 000	28 090	125 000	28 090	6 000	3 800	1 700	4.29	9.46
6032	160	6.2992	240	9.4488	38	1.4961	143 000	32 130	143 000	32 130	5 600	3 600	1 600	5.21	11.48
6034 M	170	6.6929	260	10.2362	42	1.6535	168 000	37 750	173 000	38 880	5 300	4 300	–	8.14	17.95
6036 M	180	7.0866	280	11.0236	46	1.8110	190 000	42 700	200 000	44 940	4 800	4 000	–	10.31	22.73
6038 M	190	7.4803	290	11.4173	46	1.8110	195 000	43 820	216 000	48 540	4 800	3 800	–	10.81	23.84
6040 M	200	7.8740	310	12.2047	51	2.0079	216 000	48 540	245 000	55 060	4 300	3 600	–	13.96	30.78
6044 M	220	8.6614	340	13.3858	56	2.2047	247 000	55 510	290 000	65 170	4 000	3 200	–	18.32	40.40
6048 M	240	9.4488	360	14.1732	56	2.2047	255 000	57 300	315 000	70 790	3 600	3 000	–	19.60	43.22
6052 M	260	10.2362	400	15.7480	65	2.5591	291 000	65 390	375 000	84 270	3 200	2 800	–	29.04	64.04
6056 M	280	11.0236	420	16.5354	65	2.5591	302 000	67 870	405 000	91 010	3 000	2 600	–	30.78	67.87
6060 M	300	11.8110	460	18.1102	74	2.9134	358 000	80 450	500 000	112 360	2 800	2 400	–	44.00	97.02
6064 M	320	12.5984	480	18.8976	74	2.9134	371 000	83 370	540 000	121 350	2 600	2 200	–	46.00	101.43
6068 M	340	13.3858	520	20.4724	82	3.2283	423 000	95 060	640 000	143 820	2 400	2 200	–	62.00	136.71
6072 M	360	14.1732	540	21.2598	82	3.2283	442 000	99 330	695 000	156 180	2 400	1 900	–	64.50	142.22
6076 M	380	14.9606	560	22.0472	82	3.2283	436 000	97 980	695 000	156 180	2 200	1 800	–	70.40	155.23
6080 M	400	15.7480	600	23.6220	90	3.5433	520 000	116 850	865 000	194 380	2 000	1 700	–	87.50	192.94
6084 M	420	16.5354	620	24.4094	90	3.5433	507 000	113 930	880 000	197 750	2 000	1 600	–	91.50	201.76
6088 M	440	17.3228	650	25.5906	94	3.7008	553 000	124 270	965 000	216 850	1 900	1 500	–	105.00	231.53
6092 MB	460	18.1102	680	26.7717	100	3.9370	582 000	130 790	1 060 000	238 200	1 800	1 500	–	120.00	264.60
6096 M	480	18.8976	700	27.5591	100	3.9370	618 000	138 880	1 140 000	256 180	1 700	1 400	–	125.00	275.63
60/500 N1MAS	500	19.6850	720	28.3465	100	3.9370	605 000	135 960	1 140 000	256 180	1 600	1 300	–	135.00	297.68
60/530 N1MAS	530	20.8661	780	30.7087	112	4.4094	650 000	146 070	1 270 000	285 390	1 500	1 200	–	185.00	407.93
60/560 N1MAS	560	22.0472	820	32.2835	115	4.5276	663 000	148 990	1 370 000	307 870	1 400	1 200	–	210.00	463.05
60/600 MA	600	23.6220	870	34.2520	118	4.6457	728 000	163 600	1 500 000	337 080	1 300	1 100	–	230.00	507.15
60/630 N1MBS	630	24.8031	920	36.2205	128	5.0394	819 000	184 040	1 760 000	395 510	1 200	1 000	–	285.00	628.43
60/670 N1MAS	670	26.3780	980	38.5827	136	5.3543	904 000	203 150	2 039 999	458 430	1 100	900	–	345.00	760.73
60/710 N1MAS	710	27.9528	1 030	40.5512	140	5.5118	956 000	214 830	2 199 999	494 380	1 000	850	–	394.00	868.77
60/750 MA	750	29.5276	1 090	42.9134	150	5.9055	995 000	223 600	2 360 000	530 340	950	800	–	485.00	1 069.43
60/800 N1MAS	800	31.4961	1 150	45.2756	155	6.1024	1 010 000	226 970	2 550 000	573 030	900	750	–	523.00	1 153.22

\* Feature may not be available in all sizes.

<sup>1</sup> For shielded limiting speed ratings, contact SKF Applications Engineering.

Consult SKF USA Inc. prior to design change or order placement.

Single row  
 Conrad  
 Open, sealed, shielded and snap ring  
 Standard and **SKF Explorer**  
 Series: 623 – 6222  
 Size: 3 mm – 110 mm  
 0.1181 in – 4.3307 in

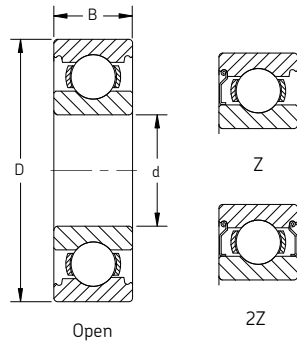


Designation	Principal dimensions						Basic load ratings				Speed rating <sup>1</sup>			Mass	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Reference speed	Sealed		kg	lb
	mm	in	mm	in	mm	in	N	lbf	N	lbf		Limiting speed	Limiting speed		
623	3	0.1181	10	0.3937	4	0.1575	540	120	180	40	130 000	80 000	40 000	0.00	0.00
624	4	0.1575	13	0.5118	5	0.1969	936	210	290	70	110 000	67 000	–	0.00	0.01
625	5	0.1969	16	0.6299	5	0.1969	1 140	260	380	90	95 000	60 000	–	0.01	0.01
626	6	0.2362	19	0.7480	6	0.2362	2 340	530	950	210	80 000	50 000	24 000	0.01	0.02
627	7	0.2756	22	0.8661	7	0.2756	3 450	780	1 370	310	70 000	45 000	22 000	0.01	0.03
628	8	0.3150	24	0.9449	8	0.3150	3 900	880	1 660	370	63 000	40 000	19 000	0.02	0.04
629	9	0.3543	26	1.0236	8	0.3150	4 750	1 070	1 960	440	60 000	38 000	19 000	0.02	0.04
6200	10	0.3937	30	1.1811	9	0.3543	5 400	1 210	2 360	530	56 000	36 000	17 000	0.03	0.07
6201	12	0.4724	32	1.2598	10	0.3937	7 280	1 640	3 100	700	50 000	32 000	15 000	0.04	0.08
6202	15	0.5906	35	1.3780	11	0.4331	8 060	1 810	3 750	840	43 000	28 000	13 000	0.04	0.10
6203	17	0.6693	40	1.5748	12	0.4724	9 950	2 240	4 750	1 070	38 000	24 000	12 000	0.06	0.14
6204	20	0.7874	47	1.8504	14	0.5512	13 500	3 030	6 550	1 470	32 000	20 000	10 000	0.11	0.23
6205	25	0.9843	52	2.0472	15	0.5906	14 800	3 330	7 800	1 750	28 000	18 000	8 500	0.13	0.28
6206	30	1.1811	62	2.4409	16	0.6299	20 300	4 560	11 200	2 520	24 000	15 000	7 500	0.20	0.44
6207	35	1.3780	72	2.8346	17	0.6693	27 000	6 070	15 300	3 440	20 000	13 000	6 300	0.29	0.64
6208	40	1.5748	80	3.1496	18	0.7087	32 500	7 300	19 000	4 270	18 000	11 000	5 600	0.37	0.80
6209	45	1.7717	85	3.3465	19	0.7480	35 100	7 890	21 600	4 850	17 000	11 000	5 000	0.42	0.92
6210	50	1.9685	90	3.5433	20	0.7874	37 100	8 340	23 200	5 210	15 000	10 000	4 800	0.46	1.01
6211	55	2.1654	100	3.9370	21	0.8268	46 200	10 380	29 000	6 520	14 000	9 000	4 300	0.61	1.35
6212	60	2.3622	110	4.3307	22	0.8661	55 300	12 430	36 000	8 090	13 000	8 000	4 000	0.78	1.72
6213	65	2.5591	120	4.7244	23	0.9055	58 500	13 150	40 500	9 100	12 000	7 500	3 600	1.02	2.25
6214	70	2.7559	125	4.9213	24	0.9449	63 700	14 310	45 000	10 110	11 000	7 000	3 400	1.09	2.40
6215	75	2.9528	130	5.1181	25	0.9843	68 900	15 480	49 000	11 010	10 000	6 700	3 200	1.19	2.62
6216	80	3.1496	140	5.5118	26	1.0236	72 800	16 360	55 000	12 360	9 500	6 000	3 000	1.47	3.23
6217	85	3.3465	150	5.9055	28	1.1024	87 100	19 570	64 000	14 380	9 000	5 600	2 800	1.80	3.98
6218	90	3.5433	160	6.2992	30	1.1811	101 000	22 700	73 500	16 520	8 500	5 300	2 600	2.22	4.89
6219	95	3.7402	170	6.6929	32	1.2598	114 000	25 620	81 500	18 310	8 000	5 000	2 400	2.63	5.79
6220	100	3.9370	180	7.0866	34	1.3386	127 000	28 540	93 000	20 900	7 500	4 800	2 400	3.18	7.01
6221	105	4.1339	190	7.4803	36	1.4173	140 000	31 460	104 000	23 370	7 000	4 500	2 200	3.79	8.36
6222	110	4.3307	200	7.8740	38	1.4961	151 000	33 930	118 000	26 520	6 700	4 300	2 000	4.45	9.80

<sup>1</sup> For shielded limiting speed ratings, contact SKF Applications Engineering.

Consult SKF USA Inc. prior to design change or order placement.

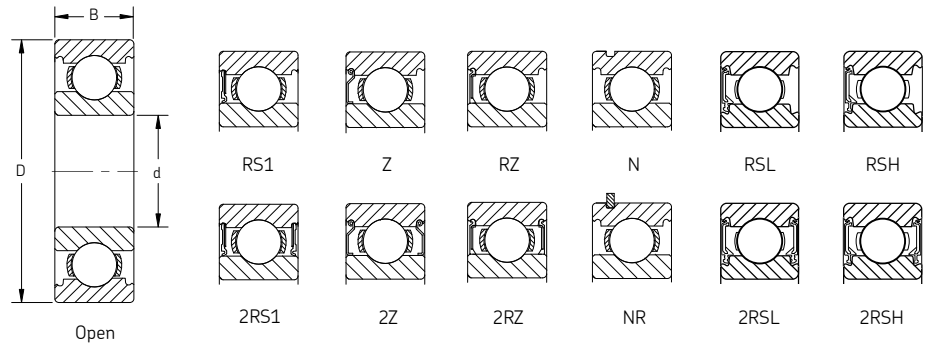
Single row  
 Conrad  
 Open and shielded  
 Standard  
 Series: 6224 – 6260 M  
 Size: 120 mm – 300 mm  
 4.7244 in – 11.8110 in



Designation	Principal dimensions						Basic load ratings				Speed rating		Mass	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Reference speed	Limiting speed		
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min	kg	lb
6224	120	4.7244	215	8.4646	40	1.5748	146 000	32 810	118 000	26 520	6 300	4 000	5.27	11.62
6226	130	5.1181	230	9.0551	40	1.5748	156 000	35 060	132 000	29 660	5 600	3 600	5.86	12.92
6228	140	5.5118	250	9.8425	42	1.6535	165 000	37 080	150 000	33 710	5 300	3 400	7.77	17.14
6230	150	5.9055	270	10.6299	45	1.7717	174 000	39 100	166 000	37 300	5 000	3 200	10.14	22.35
6232	160	6.2992	290	11.4173	48	1.8898	186 000	41 800	186 000	41 800	4 500	3 000	12.90	28.44
6234 M	170	6.6929	310	12.2047	52	2.0472	212 000	47 640	224 000	50 340	4 300	3 800	17.50	38.58
6236 M	180	7.0866	320	12.5984	52	2.0472	229 000	51 460	240 000	53 930	4 000	3 800	17.83	39.31
6238 M	190	7.4803	340	13.3858	55	2.1654	255 000	57 300	280 000	62 920	3 800	3 400	21.66	47.75
6240 M	200	7.8740	360	14.1732	58	2.2835	270 000	60 670	310 000	69 660	3 600	3 200	26.18	57.73
6244 M	220	8.6614	400	15.7480	65	2.5591	296 000	66 520	365 000	82 020	3 200	3 000	36.56	80.61
6248 M	240	9.4488	440	17.3228	72	2.8346	358 000	80 450	465 000	104 490	3 000	2 600	51.00	112.46
6252 M	260	10.2362	480	18.8976	80	3.1496	390 000	87 640	530 000	119 100	2 600	2 400	65.50	144.43
6256 M	280	11.0236	500	19.6850	80	3.1496	423 000	95 060	600 000	134 830	2 600	2 200	72.00	158.76
6260 M	300	11.8110	540	21.2598	85	3.3465	462 000	103 820	670 000	150 560	2 400	2 000	88.50	195.14

Consult SKF USA Inc. prior to design change or order placement.

Single row  
 Conrad  
 Open, sealed, and snap ring  
 Standard and [SKF Explorer](#)  
 Series: 634 – 6324 M  
 Size: 4 mm – 120 mm  
 0.1575 in – 4.7244 in



Designation	Principal dimensions						Basic load ratings				Speed rating <sup>1</sup>			Mass	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Reference speed	Sealed		kg	lb
	mm	in	mm	in	mm	in	N	lbf	N	lbf		Limiting speed	Limiting speed		
634	4	0.1575	16	0.6299	5	0.1969	1 110	250	380	90	95 000	60 000	28 000	0.01	0.01
635	5	0.1969	19	0.7480	6	0.2362	2 340	530	950	210	80 000	50 000	24 000	0.01	0.02
6300	10	0.3937	35	1.3780	11	0.4331	8 520	1 910	3 400	760	50 000	32 000	15 000	0.05	0.12
6301	12	0.4724	37	1.4567	12	0.4724	10 100	2 270	4 150	930	45 000	28 000	14 000	0.06	0.13
6302	15	0.5906	42	1.6535	13	0.5118	11 900	2 670	5 400	1 210	38 000	24 000	12 000	0.08	0.18
6303	17	0.6693	47	1.8504	14	0.5512	14 300	3 210	6 550	1 470	34 000	22 000	11 000	0.11	0.25
6304	20	0.7874	52	2.0472	15	0.5906	16 800	3 780	7 800	1 750	30 000	19 000	9 500	0.14	0.32
6305	25	0.9843	62	2.4409	17	0.6693	23 400	5 260	11 600	2 610	24 000	16 000	7 500	0.23	0.50
6306	30	1.1811	72	2.8346	19	0.7480	29 600	6 650	16 000	3 600	20 000	13 000	6 300	0.35	0.77
6307	35	1.3780	80	3.1496	21	0.8268	35 100	7 890	19 000	4 270	19 000	12 000	6 000	0.46	1.01
6308	40	1.5748	90	3.5433	23	0.9055	42 300	9 510	24 000	5 390	17 000	11 000	5 000	0.63	1.38
6309	45	1.7717	100	3.9370	25	0.9843	55 300	12 430	31 500	7 080	15 000	9 500	4 500	0.84	1.84
6310	50	1.9685	110	4.3307	27	1.0630	65 000	14 610	38 000	8 540	13 000	8 500	4 300	1.08	2.38
6311	55	2.1654	120	4.7244	29	1.1417	74 100	16 650	45 000	10 110	12 000	8 000	3 800	1.37	3.03
6312	60	2.3622	130	5.1181	31	1.2205	85 200	19 150	52 000	11 690	11 000	7 000	3 400	1.72	3.80
6313	65	2.5591	140	5.5118	33	1.2992	97 500	21 910	60 000	13 480	10 000	6 700	3 200	2.11	4.64
6314	70	2.7559	150	5.9055	35	1.3780	111 000	24 940	68 000	15 280	9 500	6 300	3 000	2.55	5.62
6315	75	2.9528	160	6.2992	37	1.4567	119 000	26 740	76 500	17 190	9 000	5 600	2 800	3.06	6.74
6316	80	3.1496	170	6.6929	39	1.5354	130 000	29 210	86 500	19 440	8 500	5 300	2 600	3.63	8.00
6317	85	3.3465	180	7.0866	41	1.6142	140 000	31 460	96 500	21 690	8 000	5 000	2 400	4.25	9.38
6318	90	3.5433	190	7.4803	43	1.6929	151 000	33 930	108 000	24 270	7 500	4 800	2 400	4.97	10.96
6319	95	3.7402	200	7.8740	45	1.7717	159 000	35 730	118 000	26 520	7 000	4 500	2 200	5.75	12.67
6320	100	3.9370	215	8.4646	47	1.8504	174 000	39 100	140 000	31 460	6 700	4 300	2 000	7.08	15.60
6321	105	4.1339	225	8.8583	49	1.9291	182 000	40 900	153 000	34 380	6 300	4 000	–	8.18	18.03
6322	110	4.3307	240	9.4488	50	1.9685	203 000	45 620	180 000	40 450	6 000	3 800	1 800	9.66	21.31
6324	120	4.7244	260	10.2362	55	2.1654	208 000	46 740	186 000	41 800	5 600	3 400	1 700	12.66	27.92

<sup>1</sup> For shielded limiting speed ratings, contact SKF Applications Engineering.

Consult SKF USA Inc. prior to design change or order placement.

Single row

Conrad

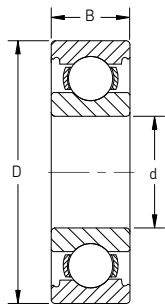
Open

Series: 6326 M – 6348 M

Standard

Size: 130 mm – 240 mm

5.1181 in – 9.4488 in

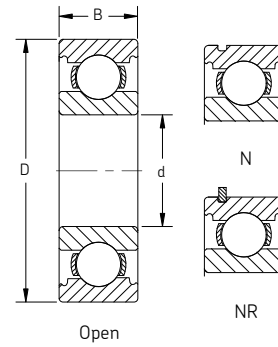


Open

Designation	Principal dimensions						Basic load ratings				Speed rating		Mass	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Reference speed	Limiting speed		
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min	kg	lb
6326 M	130	5.1181	280	11.0236	58	2.2835	229 000	51 460	216 000	48 540	5 000	4 500	17.26	38.05
6328 M	140	5.5118	300	11.8110	62	2.4409	251 000	56 400	245 000	55 060	4 800	4 300	21.07	46.46
6330 M	150	5.9055	320	12.5984	65	2.5591	276 000	62 020	285 000	64 040	4 300	4 000	25.50	56.23
6332 M	160	6.2992	340	13.3858	68	2.6772	276 000	62 020	285 000	64 040	4 000	3 800	29.85	65.82
6334 M	170	6.6929	360	14.1732	72	2.8346	312 000	70 110	340 000	76 400	3 800	3 400	34.93	77.03
6336 M	180	7.0866	380	14.9606	75	2.9528	351 000	78 880	405 000	91 010	3 600	3 200	40.90	90.19
6338 M	190	7.4803	400	15.7480	78	3.0709	371 000	83 370	430 000	96 630	3 400	3 000	47.44	104.60
6344 M	220	8.6614	460	18.1102	88	3.4646	410 000	92 130	520 000	116 850	3 000	2 600	73.00	160.97
6348 M	240	9.4488	500	19.6850	95	3.7402	442 000	99 330	585 000	131 460	2 600	2 400	96.80	213.44

Consult SKF USA Inc. prior to design change or order placement.

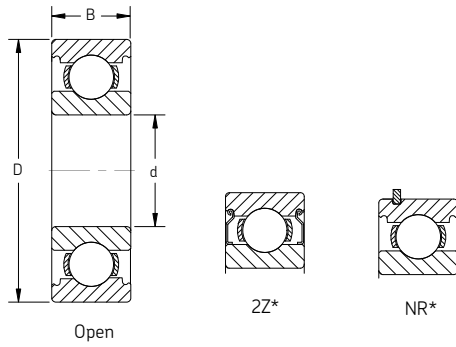
Single row  
 Conrad  
 Open and snap ring  
 Standard  
 Series: 6403 – 6418  
 Size: 17 mm – 90 mm  
 0.6693 in – 3.5433 in



Designation	Principal dimensions						Basic load ratings				Speed rating		Mass	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Reference speed	Limiting speed		
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min	kg	lb
6403	17	0.6693	62	2.4409	17	0.6693	22 900	5 150	10 800	2 430	28 000	18 000	0.27	0.60
6404	20	0.7874	72	2.8346	19	0.7480	30 700	6 900	15 000	3 370	24 000	15 000	0.41	0.90
6405	25	0.9843	80	3.1496	21	0.8268	35 800	8 040	19 300	4 340	20 000	13 000	0.54	1.20
6406	30	1.1811	90	3.5433	23	0.9055	43 600	9 800	23 600	5 300	18 000	11 000	0.75	1.65
6407	35	1.3780	100	3.9370	25	0.9843	55 300	12 430	31 000	6 970	16 000	10 000	0.97	2.14
6408	40	1.5748	110	4.3307	27	1.0630	63 700	14 310	36 500	8 200	14 000	9 000	1.26	2.78
6409	45	1.7717	120	4.7244	29	1.1417	76 100	17 100	45 000	10 110	13 000	8 500	1.57	3.47
6410	50	1.9685	130	5.1181	31	1.2205	87 100	19 570	52 000	11 690	12 000	7 500	1.94	4.27
6411	55	2.1654	140	5.5118	33	1.2992	99 500	22 360	62 000	13 930	11 000	7 000	2.35	5.19
6412	60	2.3622	150	5.9055	35	1.3780	108 000	24 270	69 500	15 620	10 000	6 300	2.83	6.24
6413	65	2.5591	160	6.2992	37	1.4567	119 000	26 740	78 000	17 530	9 500	6 000	3.37	7.43
6414	70	2.7559	180	7.0866	42	1.6535	143 000	32 130	104 000	23 370	8 500	5 300	4.93	10.87
6415	75	2.9528	190	7.4803	45	1.7717	153 000	34 380	114 000	25 620	8 000	5 000	5.81	12.80
6416	80	3.1496	200	7.8740	48	1.8898	163 000	36 630	125 000	28 090	7 500	4 800	6.86	15.12
6417	85	3.3465	210	8.2677	52	2.0472	174 000	39 100	137 000	30 790	7 000	4 500	8.05	17.75
6418	90	3.5433	225	8.8583	54	2.1260	186 000	41 800	150 000	33 710	6 700	4 300	9.78	21.56

Consult SKF USA Inc. prior to design change or order placement.

Single row  
 Conrad  
 Open, shielded and snap ring  
 Standard and SKF Explorer  
 Series: 16002 – 16044  
 Size: 15 mm – 220 mm  
 0.5906 in – 8.6614 in



Designation	Principal dimensions						Basic load ratings				Speed rating <sup>1</sup>		Mass	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Reference speed	Limiting speed	kg	lb
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min		
16002	15	0.5906	32	1.2598	8	0.3150	5 850	1 310	2 850	640	50 000	32 000	0.03	0.06
16003	17	0.6693	35	1.3780	8	0.3150	6 370	1 430	3 250	730	45 000	28 000	0.03	0.07
16005	25	0.9843	47	1.8504	8	0.3150	8 060	1 810	4 750	1 070	32 000	20 000	0.06	0.12
16006	30	1.1811	55	2.1654	9	0.3543	11 900	2 670	7 350	1 650	28 000	17 000	0.09	0.20
16007	35	1.3780	62	2.4409	9	0.3543	13 000	2 920	8 150	1 830	24 000	15 000	0.11	0.25
16008	40	1.5748	68	2.6772	9	0.3543	13 800	3 100	10 200	2 290	22 000	14 000	0.13	0.29
16009	45	1.7717	75	2.9528	10	0.3937	16 500	3 710	10 800	2 430	20 000	12 000	0.17	0.37
16010	50	1.9685	80	3.1496	10	0.3937	16 800	3 780	11 400	2 560	18 000	11 000	0.18	0.40
16011	55	2.1654	90	3.5433	11	0.4331	20 300	4 560	14 000	3 150	16 000	10 000	0.26	0.58
16012	60	2.3622	95	3.7402	11	0.4331	20 800	4 670	15 000	3 370	15 000	9 500	0.29	0.63
16013	65	2.5591	100	3.9370	11	0.4331	22 500	5 060	19 600	4 400	14 000	9 000	0.30	0.66
16014	70	2.7559	110	4.3307	13	0.5118	29 100	6 540	25 000	5 620	13 000	8 000	0.44	0.97
16015	75	2.9528	115	4.5276	13	0.5118	30 200	6 790	27 000	6 070	12 000	7 500	0.46	1.02
16016	80	3.1496	125	4.9213	14	0.5512	35 100	7 890	31 500	7 080	11 000	7 000	0.61	1.34
16017	85	3.3465	130	5.1181	14	0.5512	35 800	8 040	33 500	7 530	11 000	6 700	0.64	1.41
16018	90	3.5433	140	5.5118	16	0.6299	43 600	9 800	39 000	8 760	10 000	6 300	0.85	1.88
16019	95	3.7402	145	5.7087	16	0.6299	44 900	10 090	41 500	9 330	9 500	6 000	0.89	1.97
16020	100	3.9370	150	5.9055	16	0.6299	46 200	10 380	44 000	9 890	9 500	5 600	0.94	2.06
16021	105	4.1339	160	6.2992	18	0.7087	54 000	12 130	51 000	11 460	8 500	5 300	1.19	2.63
16022	110	4.3307	170	6.6929	19	0.7480	60 500	13 600	57 000	12 810	8 000	5 000	1.47	3.23
16024	120	4.7244	180	7.0866	19	0.7480	63 700	14 310	64 000	14 380	7 500	4 800	1.57	3.45
16026	130	5.1181	200	7.8740	22	0.8661	83 200	18 700	81 500	18 310	7 000	4 300	2.39	5.26
16028	140	5.5118	210	8.2677	22	0.8661	80 600	18 110	86 500	19 440	6 700	4 000	2.53	5.57
16030	150	5.9055	225	8.8583	24	0.9449	92 300	20 740	98 000	22 020	6 000	3 800	3.14	6.93
16032	160	6.2992	240	9.4488	25	0.9843	99 500	22 360	108 000	24 270	5 600	3 600	3.66	8.08
16034	170	6.6929	260	10.2362	28	1.1024	119 000	26 740	129 000	28 990	5 300	3 200	5.02	11.06
16036	180	7.0866	280	11.0236	31	1.2205	138 000	31 010	146 000	32 810	4 800	3 000	6.51	14.35
16038	190	7.4803	290	11.4173	31	1.2205	148 000	33 260	166 000	37 300	4 800	3 000	6.89	15.20
16040	200	7.8740	310	12.2047	34	1.3386	168 000	37 750	190 000	42 700	4 300	2 800	8.78	19.37
16044	220	8.6614	340	13.3858	37	1.4567	174 000	39 100	204 000	45 840	4 000	2 400	11.49	25.33

\* Feature may not be available in all sizes.

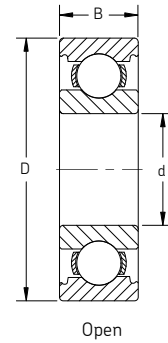
<sup>1</sup> For shielded limiting speed ratings, contact SKF Applications Engineering.

Consult SKF USA Inc. prior to design change or order placement.



Single row  
 Conrad  
 Open and sealed  
 Standard  
 Series: 16048 – 16076  
 Size: 240 mm – 380 mm  
 9.4488 in – 14.9606 in

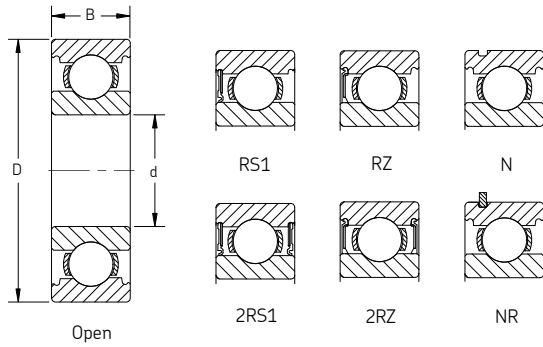
Series: 16100 – 16101  
 Size: 10 mm – 12 mm  
 0.3937 in – 0.4724 in



Designation	Principal dimensions						Basic load ratings				Speed rating			Mass	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Reference speed	Sealed		kg	lb
	mm	in	mm	in	mm	in	N	lbf	N	lbf		Limiting speed	Limiting speed		
<b>16048</b>	240	9.4488	360	14.1732	37	1.4567	203 000	45 620	255 000	57 300	3 600	2 200	–	12.30	27.12
<b>16052</b>	260	10.2362	400	15.7480	44	1.7323	238 000	53 480	310 000	69 660	3 200	2 000	–	18.00	39.69
<b>16056</b>	280	11.0236	420	16.5354	44	1.7323	242 000	54 380	335 000	75 280	3 000	1 900	–	19.00	41.90
<b>16060 MA</b>	300	11.8110	460	18.1102	50	1.9685	286 000	64 270	405 000	91 010	2 800	1 800	–	32.00	70.56
<b>16064 MA</b>	320	12.5984	480	18.8976	50	1.9685	281 000	63 150	405 000	91 010	2 600	2 200	–	34.00	74.97
<b>16068 MA</b>	340	13.3858	520	20.4724	57	2.2441	345 000	77 530	520 000	116 850	2 400	2 000	–	45.00	99.23
<b>16072 MA</b>	360	14.1732	540	21.2598	57	2.2441	351 000	78 880	550 000	123 600	1 800	1 400	–	49.00	108.05
<b>16076 MA</b>	380	14.9606	560	22.0472	57	2.2441	377 000	84 720	620 000	139 330	2 200	1 400	–	51.00	112.46
<b>16100</b>	10	0.3937	28	1.1024	8	0.3150	5 070	1 140	2 360	530	60 000	38 000	–	0.02	0.05
<b>16101</b>	12	0.4724	30	1.1811	8	0.3150	5 070	1 140	2 360	530	60 000	38 000	16 000	0.03	0.06

Consult SKF USA Inc. prior to design change or order placement.

Single row  
 Conrad  
 Open, sealed and snap ring  
 Standard  
 Series: 61800 – 61830  
 Size: 10 mm – 150 mm  
 0.3937 in – 5.9055 in

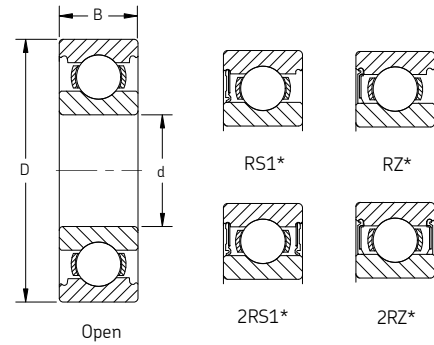


Designation	Principal dimensions						Basic load ratings				Speed rating			Mass	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Refer- ence speed	Limiting speed	Sealed Limiting speed	kg	lb
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min	r/min		
61800	10	0.3937	19	0.7480	5	0.1969	1 720	390	830	190	80 000	48 000	22 000	0.01	0.01
61801	12	0.4724	21	0.8268	5	0.1969	1 740	390	915	210	70 000	43 000	20 000	0.01	0.01
61802	15	0.5906	24	0.9449	5	0.1969	1 900	430	1 100	250	60 000	38 000	17 000	0.01	0.01
61803	17	0.6693	26	1.0236	5	0.1969	2 030	460	1 270	290	56 000	34 000	16 000	0.01	0.02
61804	20	0.7874	32	1.2598	7	0.2756	4 030	910	2 320	520	45 000	28 000	13 000	0.02	0.04
61805	25	0.9843	37	1.4567	7	0.2756	4 360	980	2 600	580	38 000	24 000	11 000	0.02	0.05
61806	30	1.1811	42	1.6535	7	0.2756	4 490	1 010	2 900	650	32 000	20 000	9 500	0.03	0.06
61807	35	1.3780	47	1.8504	7	0.2756	4 360	980	3 350	750	30 000	18 000	8 500	0.03	0.06
61808	40	1.5748	52	2.0472	7	0.2756	4 490	1 010	3 750	840	26 000	16 000	7 500	0.03	0.07
61809	45	1.7717	58	2.2835	7	0.2756	6 630	1 490	6 100	1 370	22 000	14 000	6 700	0.04	0.09
61810	50	1.9685	65	2.5591	7	0.2756	6 760	1 520	6 800	1 530	20 000	13 000	6 000	0.05	0.11
61811	55	2.1654	72	2.8346	9	0.3543	9 040	2 030	8 800	1 980	19 000	12 000	5 300	0.08	0.18
61812	60	2.3622	78	3.0709	10	0.3937	11 900	2 670	11 400	2 560	17 000	11 000	4 800	0.11	0.24
61813	65	2.5591	85	3.3465	10	0.3937	12 400	2 790	12 700	2 850	16 000	10 000	4 500	0.13	0.29
61814	70	2.7559	90	3.5433	10	0.3937	12 400	2 790	13 200	2 970	15 000	9 000	4 300	0.14	0.31
61815	75	2.9528	95	3.7402	10	0.3937	12 500	2 810	10 800	2 430	14 000	8 500	4 000	0.15	0.32
61816	80	3.1496	100	3.9370	10	0.3937	12 700	2 850	11 200	2 520	13 000	8 000	3 600	0.15	0.34
61817	85	3.3465	110	4.3307	13	0.5118	19 500	4 380	16 600	3 730	12 000	7 500	3 400	0.26	0.58
61818	90	3.5433	115	4.5276	13	0.5118	19 500	4 380	17 000	3 820	11 000	7 000	3 200	0.28	0.61
61819	95	3.7402	120	4.7244	13	0.5118	19 900	4 470	17 600	3 960	11 000	6 700	3 000	0.29	0.64
61820	100	3.9370	125	4.9213	13	0.5118	17 800	4 000	18 300	4 110	10 000	6 300	3 000	0.30	0.67
61821	105	4.1339	130	5.1181	13	0.5118	20 800	4 670	19 600	4 400	10 000	6 300	2 800	0.31	0.68
61822	110	4.3307	140	5.5118	16	0.6299	28 100	6 310	26 000	5 840	9 500	5 600	2 600	0.47	1.04
61824	120	4.7244	150	5.9055	16	0.6299	29 100	6 540	28 000	6 290	8 500	5 300	2 400	0.51	1.13
61826	130	5.1181	165	6.4961	18	0.7087	37 700	8 470	43 000	9 660	8 000	4 800	2 200	0.75	1.65
61828	140	5.5118	175	6.8898	18	0.7087	39 000	8 760	46 500	10 450	7 500	4 500	2 000	0.82	1.82
61830	150	5.9055	190	7.4803	20	0.7874	48 800	10 970	61 000	13 710	6 700	4 300	–	1.19	2.62

\* 61808-2RZ NR and 61812 NR are made to order products.

Consult SKF USA Inc. prior to design change or order placement.

Single row  
 Conrad  
 Open and sealed  
 Standard  
 Series: 61832 – 618/800 MA  
 Size: 160 mm – 800 mm  
 6.2992 in – 31.4961 in



Designation	Principal dimensions						Basic load ratings				Speed rating			Mass	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Refer- ence speed	Sealed		kg	lb
	mm	in	mm	in	mm	in	N	lbf	N	lbf		Limiting speed	Limiting speed		
61832	160	6.2992	200	7.8740	20	0.7874	49 400	11 100	64 000	14 380	6 300	4 000	–	1.25	2.76
61834	170	6.6929	215	8.4646	22	0.8661	61 800	13 890	78 000	17 530	6 000	3 600	–	1.63	3.60
61836	180	7.0866	225	8.8583	22	0.8661	62 400	14 020	81 500	18 310	5 600	3 400	–	1.73	3.82
61838	190	7.4803	240	9.4488	24	0.9449	76 100	17 100	98 000	22 020	5 300	3 200	–	2.24	4.93
61840	200	7.8740	250	9.8425	24	0.9449	76 100	17 100	102 000	22 920	5 000	3 200	–	2.34	5.16
61844	220	8.6614	270	10.6299	24	0.9449	78 000	17 530	110 000	24 720	4 500	2 800	–	2.54	5.60
61848	240	9.4488	300	11.8110	28	1.1024	108 000	24 270	150 000	33 710	4 000	2 600	–	3.88	8.55
61852	260	10.2362	320	12.5984	28	1.1024	111 000	24 940	163 000	36 630	3 800	2 400	–	4.17	9.19
61856 MA	280	11.0236	350	13.7795	33	1.2992	138 000	31 010	200 000	44 940	3 400	2 800	–	7.25	15.98
61860 MA	300	11.8110	380	14.9606	38	1.4961	172 000	38 650	245 000	55 060	3 200	2 600	–	10.35	22.83
61864 MA	320	12.5984	400	15.7480	38	1.4961	172 000	38 650	255 000	57 300	3 000	2 400	–	10.95	24.16
61868 MA	340	13.3858	420	16.5354	38	1.4961	178 000	40 000	275 000	61 800	2 800	2 400	–	11.57	25.51
61872 MA	360	14.1732	440	17.3228	38	1.4961	182 000	40 900	285 000	64 040	2 600	2 200	–	12.00	26.46
61876 MA	380	14.9606	480	18.8976	46	1.8110	242 000	54 380	390 000	87 640	2 400	2 000	–	20.00	44.10
61880 MA	400	15.7480	500	19.6850	46	1.8110	247 000	55 510	405 000	91 010	2 400	1 900	–	20.50	45.20
61884 MA	420	16.5354	520	20.4724	46	1.8110	251 000	56 400	425 000	95 510	2 200	1 800	–	21.50	47.41
61888 MA	440	17.3228	540	21.2598	46	1.8110	255 000	57 300	440 000	98 880	2 200	1 800	–	22.50	49.61
61892 MA	460	18.1102	580	22.8346	56	2.2047	319 000	71 690	570 000	128 090	2 000	1 600	–	35.00	77.18
61896 MA	480	18.8976	600	23.6220	56	2.2047	325 000	73 030	600 000	134 830	1 900	1 600	–	36.50	80.48
618/500 MA	500	19.6850	620	24.4094	56	2.2047	332 000	74 610	620 000	139 330	1 800	1 500	–	40.50	89.30
618/530 MA	530	20.8661	650	25.5906	56	2.2047	332 000	74 610	655 000	147 190	1 700	1 400	–	39.50	87.10
618/560 MA	560	22.0472	680	26.7717	56	2.2047	345 000	77 530	695 000	156 180	1 600	1 300	–	42.00	92.61
618/600 MA	600	23.6220	730	28.7402	60	2.3622	364 000	81 800	765 000	171 910	1 500	1 200	–	52.00	114.66
618/630 MA	630	24.8031	780	30.7087	69	2.7165	442 000	99 330	965 000	216 850	1 400	1 100	–	73.00	160.97
618/710 MA	710	27.9528	870	34.2520	74	2.9134	475 000	106 740	1 100 000	247 190	1 200	1 000	–	93.50	206.17
618/750 MA	750	29.5276	920	36.2205	78	3.0709	527 000	118 430	1 250 000	280 900	1 100	900	–	110.00	242.55
618/800 MA	800	31.4961	980	38.5827	82	3.2283	559 000	125 620	1 370 000	307 870	1 000	850	–	130.00	286.65

\* Feature may not be available in all sizes.

Consult SKF USA Inc. prior to design change or order placement.

Single row

Conrad

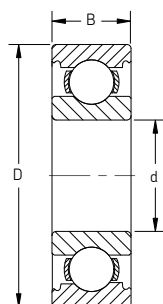
Open

Standard

Series: 618/850 MA – 618/1500 MA

Size: 850 mm – 1 500 TN

33.4646 in – 59.0551 in

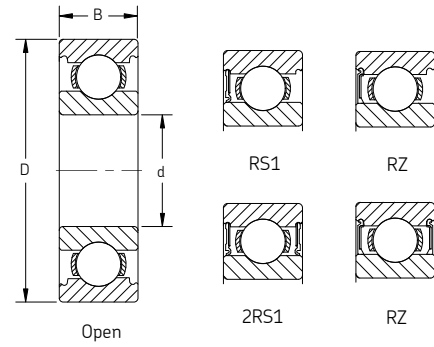


Open

Designation	Principal dimensions						Basic load ratings				Speed rating <sup>1</sup>		Mass	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Reference speed	Limiting speed		
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min	kg	lb
618/850 MA	850	33.4646	1 030	40.5512	82	3.2283	559 000	125 620	1 430 000	321 350	950	750	140.00	308.70
618/900 MA	900	35.4331	1 090	42.9134	85	3.3465	618 000	138 880	1 599 999	359 550	850	700	167.00	368.24
618/950 MA	950	37.4016	1 150	45.2756	90	3.5433	637 000	143 150	1 729 999	388 760	800	670	196.50	433.28
618/1000 MA	1 000	39.3701	1 220	48.0315	100	3.9370	637 000	143 150	1 800 000	404 490	750	600	245.00	540.23
618/1060 MA	1 060	41.7323	1 280	50.3937	100	3.9370	728 000	163 600	2 119 999	476 400	670	560	260.00	573.30
618/1120 MA	1 120	44.0945	1 360	53.5433	106	4.1732	741 000	166 520	2 200 000	494 380	630	530	315.00	694.58
618/1180 MB	1 180	46.4567	1 420	55.9055	106	4.1732	761 000	171 010	2 359 999	530 340	560	480	337.00	743.09
618/1320 MA	1 320	51.9685	1 600	62.9921	122	4.8031	956 000	214 830	3 149 999	707 860	480	400	500.00	1102.50
618/1500 TN	1 500	59.0551	1 820	71.6535	140	5.5118	1 170 000	262 920	4 149 999	932 580	380	240	638.00	1406.79

Consult SKF USA Inc. prior to design change or order placement.

Single row  
 Conrad  
 Open and sealed  
 Standard  
 Series: 61900 – 61936 MA  
 Size: 10 mm – 180 mm  
 0.3937 in – 7.0866 in



Designation	Principal dimensions						Basic load ratings				Speed rating			Mass	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Refer- ence speed	Sealed		kg	lb
	mm	in	mm	in	mm	in	N	lbf	N	lbf		Limiting speed	Limiting speed		
61900	10	0.3937	22	0.8661	6	0.2362	2 700	610	1 270	290	70 000	45 000	20 000	0.01	0.02
61901	12	0.4724	24	0.9449	6	0.2362	2 910	650	1 460	330	67 000	40 000	19 000	0.01	0.02
61902	15	0.5906	28	1.1024	7	0.2756	4 360	980	2 240	500	56 000	34 000	16 000	0.02	0.04
61903	17	0.6693	30	1.1811	7	0.2756	4 620	1 040	2 550	570	50 000	32 000	14 000	0.02	0.04
61904	20	0.7874	37	1.4567	9	0.3543	6 370	1 430	3 650	820	43 000	26 000	12 000	0.04	0.08
61905	25	0.9843	42	1.6535	9	0.3543	7 020	1 580	4 300	970	36 000	22 000	10 000	0.05	0.10
61906	30	1.1811	47	1.8504	9	0.3543	7 280	1 640	4 550	1 020	30 000	19 000	8 500	0.05	0.11
61907	35	1.3780	55	2.1654	10	0.3937	10 800	2 430	7 800	1 750	26 000	16 000	7 500	0.08	0.18
61908	40	1.5748	62	2.4409	12	0.4724	13 800	3 100	10 000	2 250	24 000	14 000	6 700	0.12	0.26
61909	45	1.7717	68	2.6772	12	0.4724	14 000	3 150	10 800	2 430	20 000	13 000	6 000	0.14	0.31
61910	50	1.9685	72	2.8346	12	0.4724	14 600	3 280	11 800	2 650	19 000	12 000	5 600	0.14	0.31
61911	55	2.1654	80	3.1496	13	0.5118	16 500	3 710	14 000	3 150	17 000	11 000	5 000	0.19	0.42
61912	60	2.3622	85	3.3465	13	0.5118	16 500	3 710	12 000	2 700	16 000	10 000	4 500	0.20	0.43
61913	65	2.5591	90	3.5433	13	0.5118	17 400	3 910	16 000	3 600	15 000	9 500	4 300	0.22	0.49
61914	70	2.7559	100	3.9370	16	0.6299	23 800	5 350	18 300	4 110	14 000	8 500	4 000	0.34	0.74
61915	75	2.9528	105	4.1339	16	0.6299	24 200	5 440	19 300	4 340	13 000	8 000	3 600	0.36	0.79
61916	80	3.1496	110	4.3307	16	0.6299	25 100	5 640	20 400	4 580	12 000	7 500	3 400	0.38	0.85
61917	85	3.3465	120	4.7244	18	0.7087	31 900	7 170	30 000	6 740	11 000	7 000	–	0.55	1.22
61918	90	3.5433	125	4.9213	18	0.7087	33 200	7 460	31 500	7 080	11 000	6 700	–	0.59	1.30
61919	95	3.7402	130	5.1181	18	0.7087	33 800	7 600	33 500	7 530	10 000	6 300	3 000	0.61	1.35
61920	100	3.9370	140	5.5118	20	0.7874	42 300	9 510	41 500	9 330	9 500	6 000	–	0.83	1.83
61921	105	4.1339	145	5.7087	20	0.7874	44 200	9 930	44 000	9 890	9 500	5 600	–	0.87	1.92
61922	110	4.3307	150	5.9055	20	0.7874	43 600	9 800	45 000	10 110	9 000	5 600	–	0.90	1.99
61924	120	4.7244	165	6.4961	22	0.8661	55 300	12 430	57 000	12 810	8 000	5 000	–	1.20	2.65
61926	130	5.1181	180	7.0866	24	0.9449	65 000	14 610	67 000	15 060	7 500	4 500	–	1.60	3.53
61928	140	5.5118	190	7.4803	24	0.9449	66 300	14 900	72 000	16 180	7 000	4 300	–	1.70	3.75
61930 MA	150	5.9055	210	8.2677	28	1.1024	88 400	19 870	93 000	20 900	6 300	5 300	–	3.03	6.69
61932 MA	160	6.2992	220	8.6614	28	1.1024	92 300	20 740	98 000	22 020	6 000	5 000	–	3.20	7.06
61934 MA	170	6.6929	230	9.0551	28	1.1024	93 600	21 030	106 000	23 820	5 600	4 800	–	3.37	7.43
61936 MA	180	7.0866	250	9.8425	33	1.2992	119 000	26 740	134 000	30 110	5 300	4 300	–	4.99	11.00

Consult SKF USA Inc. prior to design change or order placement.

Single row

Conrad

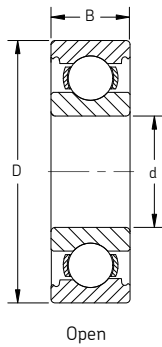
Open

Standard

Series: 61938 MA – 619/850

Size: 190 mm – 850 mm

7.4803 in – 33.4646 in

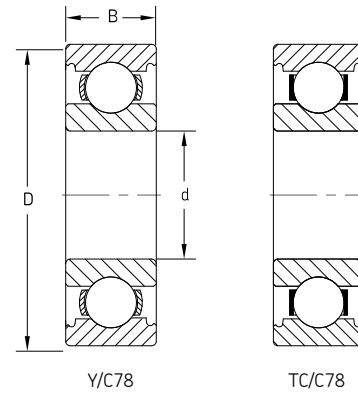


Designation	Principal dimensions						Basic load ratings				Speed rating		Mass	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Reference speed	Limiting speed		
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min	kg	lb
61938 MA	190	7.4803	260	10.2362	33	1.2992	117 000	26 290	134 000	30 110	5 000	4 300	5.21	11.50
61940 MA	200	7.8740	280	11.0236	38	1.4961	148 000	33 260	166 000	37 300	4 800	3 800	7.32	16.15
61944 MA	220	8.6614	300	11.8110	38	1.4961	151 000	33 930	180 000	40 450	4 300	3 600	7.93	17.49
61948 MA	240	9.4488	320	12.5984	38	1.4961	159 000	35 730	200 000	44 940	4 000	3 200	8.54	18.84
61952 MA	260	10.2362	360	14.1732	46	1.8110	212 000	47 640	270 000	60 670	3 600	3 000	14.42	31.80
61956 MA	280	11.0236	380	14.9606	46	1.8110	216 000	48 540	285 000	64 040	3 200	2 800	15.34	33.83
61960 MA	300	11.8110	420	16.5354	56	2.2047	270 000	60 670	375 000	84 270	3 000	2 400	24.35	53.69
61964 MA	320	12.5984	440	17.3228	56	2.2047	276 000	62 020	400 000	89 890	2 800	2 400	25.50	56.23
61968 MA	340	13.3858	460	18.1102	56	2.2047	281 000	63 150	425 000	95 510	2 600	2 200	26.50	58.43
61972 MA	360	14.1732	480	18.8976	56	2.2047	291 000	65 390	450 000	101 120	2 600	2 200	28.00	61.74
61976 MA	380	14.9606	520	20.4724	65	2.5591	338 000	75 960	540 000	121 350	2 400	1 900	40.00	88.20
61980 MA	400	15.7480	540	21.2598	65	2.5591	345 000	77 530	570 000	128 090	2 200	1 800	41.50	91.51
61984 MA	420	16.5354	560	22.0472	65	2.5591	351 000	78 880	600 000	134 830	2 200	1 800	43.00	94.82
61988 MA	440	17.3228	600	23.6220	74	2.9134	410 000	92 130	720 000	161 800	2 000	1 600	60.50	133.40
61992 MA	460	18.1102	620	24.4094	74	2.9134	423 000	95 060	750 000	168 540	1 900	1 600	62.50	137.81
61996 MA	480	18.8976	650	25.5906	78	3.0709	449 000	100 900	815 000	183 150	1 800	1 500	74.00	163.17
619/500 MA	500	19.6850	670	26.3780	78	3.0709	462 000	103 820	865 000	194 380	1 700	1 400	81.50	179.71
619/530 MA	530	20.8661	710	27.9528	82	3.2283	488 000	109 660	930 000	208 990	1 600	1 300	90.50	199.55
619/560 MA	560	22.0472	750	29.5276	85	3.3465	494 000	111 010	980 000	220 220	1 500	1 200	105.00	231.53
619/600 MA	600	23.6220	800	31.4961	90	3.5433	585 000	131 460	1 220 000	274 160	1 400	1 100	125.00	275.63
619/670 MA	670	26.3780	900	35.4331	103	4.0551	676 000	151 910	1 500 000	337 080	1 200	1 000	192.00	423.36
619/710 MA	710	27.9528	950	37.4016	106	4.1732	663 000	148 990	1 500 000	337 080	1 100	900	220.00	485.10
619/750 MA	750	29.5276	1 000	39.3701	112	4.4094	761 000	171 010	1 799 999	404 490	1 000	850	255.00	562.28
619/800 MA	800	31.4961	1 060	41.7323	115	4.5276	832 000	186 970	2 039 999	458 430	950	800	275.00	606.38
619/850 MA	850	33.4646	1 120	44.0945	118	4.6457	852 000	191 460	2 119 999	476 400	850	750	320.00	705.60

Consult SKF USA Inc. prior to design change or order placement.

Single row  
 ABEC 5  
 Open  
 Standard  
 Series: 6205/C78 – 6218/C78  
 Size: 25 mm – 90 mm  
 0.9843 in – 3.5433 in

Series: 6303/C78 – 6317/C78  
 Size: 17 mm – 85 mm  
 0.6693 in – 3.3465 in



Designation	Principal dimensions						Basic load ratings				Speed rating		Mass	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Reference speed	Limiting speed		
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min	kg	lb
6205 /C78	25	0.9843	52	2.0472	15	0.5906	14 800	3 330	7 800	1 750	28 000	18 000	0.13	0.29
6206 /C78	30	1.1811	62	2.4409	16	0.6299	20 300	4 560	11 200	2 520	24 000	15 000	0.20	0.44
6207 /C78	35	1.3780	72	2.8346	17	0.6693	27 000	6 070	15 300	3 440	20 000	13 000	0.28	0.62
6208 /C78	40	1.5748	80	3.1496	18	0.7087	32 500	7 310	19 000	4 270	18 000	11 000	0.36	0.79
6209 /C78	45	1.7717	85	3.3465	19	0.748	35 100	7 890	21 600	4 860	17 000	11 000	0.41	0.90
6210 /C78	50	1.9685	90	3.5433	20	0.7874	37 100	8 340	23 200	5 220	15 000	10 000	0.46	1.01
6211 /C78	55	2.1654	100	3.9370	21	0.8268	46 200	10 390	29 000	6 520	14 000	9 000	0.60	1.32
6212 /C78	60	2.3622	110	4.3307	22	0.8661	55 300	12 430	36 000	8 090	13 000	8 000	0.78	1.72
6213 /C78	65	2.5591	120	4.7244	23	0.9055	58 500	13 150	40 500	9 100	12 000	7 500	0.99	2.18
6214 /C78	70	2.7559	125	4.9213	24	0.9449	63 700	14 320	45 000	10 120	11 000	7 000	1.07	2.40
6215 /C78	75	2.9528	130	5.1181	25	0.9843	68 900	15 490	49 000	11 020	10 000	6 700	1.20	2.60
6216 /C78	80	3.1496	140	5.5118	26	1.0236	72 800	16 370	55 000	12 360	9 500	6 000	1.42	3.10
6217 /C78	85	3.3465	150	5.9055	28	1.1024	87 100	19 580	64 000	14 390	9 000	5 600	1.80	4.00
6218 /C78	90	3.5433	160	6.2992	30	1.1811	101 000	22 700	73 500	16 520	8 500	5 300	2.15	4.70
6303 /C78	17	0.6693	47	1.8504	14	0.5512	14 300	3 210	6 550	1 470	34 000	22 000	0.12	0.26
6304 /C78	20	0.7874	52	2.0472	15	0.5906	16 800	3 780	7 800	1 750	30 000	19 000	0.14	0.31
6305 /C78	25	0.9843	62	2.4409	17	0.6693	23 400	5 260	11 600	2 610	24 000	16 000	0.23	0.50
6306 /C78	30	1.1811	72	2.8346	19	0.748	29 600	6 650	16 000	3 600	20 000	13 000	0.34	0.70
6307 /C78	35	1.3780	80	3.1496	21	0.8268	35 100	7 890	19 000	4 270	19 000	12 000	0.46	1.00
6308 /C78	40	1.5748	90	3.5433	23	0.9055	42 300	9 510	24 000	5 400	17 000	11 000	0.63	1.40
6309 /C78	45	1.7717	100	3.9370	25	0.9843	55 300	12 430	31 500	7 080	15 000	9 500	0.84	1.90
6310 /C78	50	1.9685	110	4.3307	27	1.063	65 000	14 610	38 000	8 540	13 000	8 500	1.10	2.40
6311 /C78	55	2.1654	120	4.7244	29	1.1417	74 100	16 660	45 000	10 120	12 000	8 000	1.39	3.10
6312 /C78	60	2.3622	130	5.1181	31	1.2205	85 200	19 150	52 000	11 690	11 000	7 000	1.75	3.90
6313 /C78	65	2.5591	140	5.5118	33	1.2992	97 500	21 920	60 000	13 490	10 000	6 700	2.10	4.60
6314 /C78	70	2.7559	150	5.9055	35	1.378	111 000	24 950	68 000	15 290	9 500	6 300	2.55	5.60
6315 /C78	75	2.9528	160	6.2992	37	1.4567	119 000	26 750	76 500	17 200	9 000	5 600	3.05	6.70
6316 /C78	80	3.1496	170	6.6929	39	1.5354	130 000	29 220	86 500	19 450	8 500	5 300	3.59	7.90
6317 /C78	85	3.3465	180	7.0866	41	1.6142	140 000	31 470	96 500	21 690	8 000	5 000	4.30	9.50

Consult SKF USA Inc. prior to design change or order placement.