

SKF 925

Catalogue

This catalogue of SKF products has been compiled for the Canadian market and relates to SKF's state-of-the-art technology and production capabilities. The data may differ from that shown in earlier catalogues because of redesign, technological developments or revised methods of calculation.

The tables include numbers for SKF bearings and accessories, boundary dimensions (both metric and imperial), speed ratings, weights (mass), and load ratings. Tables are included offering shaft and housing fits, internal clearances of all shown bearing types and clearance reduction (drive-up) recommendations for mounting spherical roller bearings on tapered seats.

SKF has been supplying Canadian industry with top quality bearings, related products and services since 1917. The company offers the broadest product line in the industry in Canada, featuring every basic bearing type - ball, spherical, cylindrical, needle, taper roller and mounted units for virtually every type of application. SKF offers many other products not described in this catalogue, i.e. needle roller bearings, high precision bearings, spherical plain bearings and rod ends, bearing accessories, bearing housings, industrial seals and linear motion products. These are available in dedicated catalogues.

The SKF Group is the world's largest manufacturer of anti-friction bearings and accessories with some 100 manufacturing sites worldwide and sales companies in 70 countries.

For more detailed information on SKF products, system solutions or for assistance in selecting or identifying bearings, consult the SKF Application Engineering Department in Scarborough or your nearest SKF District Office. See telephone numbers on back cover.

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Listing in this publication does not necessarily imply product availability. The designs, load and speed ratings shown are those being used at the time of publication. To determine current condition, contact the SKF Engineering Department in Scarborough.

Conversions Charts

Quantity	Unit	Conversion			
Length	inch	1 mm	0.039 inch	1 in	25.40 mm
	foot	1 m	3.281 ft	1 ft	0.3048 m
	yard	1 m	1.094 yd	1 yd	0.9144 m
	mile	1 km	0.6214 mile	1 mile	1.609 km
Area	square inch	1 mm ²	0.00155 sq.in	1 sq.in	645.16 mm ²
	square foot	1 m ²	10.76 sq.ft	1 sq.ft	0.0929 m ²
Volume	cubic inch	1 cm ³	0.061 cub.in	1 cub.in	16.387 cm ³
	cubic foot	1 m ³	35 cub.ft	1 cub.ft	0.02832 m ³
	imperial gallon	1 l	0.22 gallon	1 gallon	4.5461 l
	U.S. gallon	1 l	0.2642 U.S. gallon	1 U.S. gallon	3.7854 l
Velocity, speed	foot per second	1 m/s	3.28 ft/s	1 ft/s	0.30480 m/s
	mile per hour	1 km/h	0.6214 mph	1 mph	1.609 km/h
Mass	ounce	1 g	0.03527 oz	1 oz	28.350 g
	pound	1 kg	2.205 lb	1 lb	0.45359 kg
	short ton	1 tonne	1.1023 short ton	1 short ton	0.90719 tonne
	long ton	1 tonne	0.9842 long ton	1 long ton	1.0161 tonne
Density	pound per cubic inch	1 g/cm ³	0.0361 lb/cub.in	1 lb/cub.in	27.680 g/cm ³
Force	pound-force	1 N	0.225 lbf	1 lbf	4.4482 N
Pressure, stress	pounds per square inch	1 MPa	145 psi	1 psi	6.8948 x10 ³ Pa
Moment	inch pound-force	1 Nm	8.85 in.lbf	1 in.lbf	0.113 Nm
Power	foot-pound per second	1 W	0.7376 ft lbf/s	1 ft lbf/s	1.3558 W
	horsepower	1 kW	1.36 HP	1 HP	0.736 kW
Temperature	degree	Celcius	t _C = 0.555 (t _F - 32)	Fahrenheit	t _F = 1.8 t _C + 32

Temperature conversions (C and F)

Look up reading in middle columns, if in degrees Celsius, read Fahrenheit equivalent in right hand column; if in degrees Fahrenheit read Celsius equivalent in left hand column.

C	F	C	F	C	F	C	F				
-57.0	-70.0	-94.0	1.7	35.0	95.0	25.0	77.0	170.6	132	270	518
-51.0	-60.0	-76.0	2.2	36.0	96.8	25.6	78.0	172.4	138	280	536
-46.0	-50.0	-58.0	2.8	37.0	98.6	26.1	79.0	174.2	143	290	554
-40.0	-40.0	-40.0	3.3	38.0	100.4	26.7	80.0	176.0	149	300	572
-34.0	-30.0	-22.0	3.9	39.0	102.2	27.2	81.0	177.8	154	310	590
-29.0	-20.0	-4.0	4.4	40.0	104.0	27.8	82.0	179.6	160	320	608
-23.0	-10.0	14.0	5.0	41.0	105.8	28.3	83.0	181.4	166	330	626
-17.8	0.0	32.0	5.6	42.0	107.6	28.9	84.0	183.2	171	340	644
-17.2	1.0	33.8	6.1	43.0	109.4	29.4	85.0	185.0	177	350	662
-16.7	2.0	35.6	6.7	44.0	111.2	30.0	86.0	186.8	182	360	680
-16.1	3.0	37.4	7.2	45.0	113.0	30.6	87.0	188.6	188	370	698
-15.6	4.0	39.2	7.8	46.0	114.8	31.1	88.0	190.4	193	380	716
-15.0	5.0	41.0	8.3	47.0	116.6	31.7	89.0	192.2	199	390	734
-14.4	6.0	42.8	8.9	48.0	118.4	32.2	90.0	194.0	204	400	752
-13.9	7.0	44.6	9.4	49.0	120.2	32.8	91.0	195.8	210	410	770
-13.3	8.0	46.4	10.0	50.0	122.0	33.3	92.0	197.6	216	420	788
-12.8	9.0	48.2	10.6	51.0	123.8	33.9	93.0	199.4	221	430	806
-12.2	10.0	50.0	11.1	52.0	125.6	34.4	94.0	201.2	227	440	824
-11.7	11.0	51.8	11.7	53.0	127.4	35.0	95.0	203.0	232	450	842
-11.1	12.0	53.6	12.2	54.0	129.2	35.6	96.0	204.8	238	460	860
-10.6	13.0	55.4	12.8	55.0	131.0	36.1	97.0	206.6	243	470	878
-10.0	14.0	57.2	13.3	56.0	132.8	36.7	98.0	208.4	249	480	896
-9.4	15.0	59.0	13.9	57.0	134.6	37.2	99.0	210.2	254	490	914
-8.9	16.0	60.8	14.4	58.0	136.4	37.8	100.0	212.0	260	500	932
-8.3	17.0	62.6	15.0	59.0	138.2	38.0	100.0	212.0	266	510	950
-7.8	18.0	64.4	15.6	60.0	140.0	43.0	110.0	230.0	271	520	968
-7.2	19.0	66.2	16.1	61.0	141.8	49.0	120.0	248.0	277	530	986
-6.7	20.0	68.0	16.7	62.0	143.6	54.0	130.0	266.0	282	540	1004
-6.1	21.0	69.8	17.2	63.0	145.4	60.0	140.0	284.0	288	550	1022
-5.6	22.0	71.6	17.8	64.0	147.2	66.0	150.0	302.0	293	560	1040
-5.0	23.0	73.4	18.3	65.0	149.0	71.0	160.0	320.0	299	570	1058
-4.4	24.0	75.2	18.9	66.0	150.8	77.0	170.0	338.0	304	580	1076
-3.9	25.0	77.0	19.4	67.0	152.6	82.0	180.0	356.0	310	590	1094
-3.3	26.0	78.8	20.0	68.0	154.4	88.0	190.0	374.0	316	600	1112
-2.8	27.0	80.6	20.6	69.0	156.2	93.0	200.0	392.0	321	610	1130
-2.2	28.0	82.4	21.1	70.0	158.0	99.0	210.0	410.0	327	620	1148
-1.7	29.0	84.2	21.7	71.0	159.8	100.0	212.0	413.6	332	630	1166
-1.1	30.0	86.0	22.2	72.0	161.6	104.0	220.0	428.0	338	640	1184
-0.6	31.0	87.9	22.8	73.0	163.4	110.0	230.0	436.0	343	650	1202
0.0	32.0	89.6	23.3	74.0	165.2	116.0	240.0	464.0	349	660	1220
0.6	33.0	91.4	23.9	75.0	167.0	121.0	250.0	482.0			
1.1	34.0	93.2	24.4	76.0	168.8	127.0	260.0	500.0			













Deep Groove Ball Bearings	29	
<hr/>		
Angular Contact Ball Bearings	73	
<hr/>		
Self Aligning Ball Bearings	99	
<hr/>		
Cylindrical Roller Bearings	107	
<hr/>		
Taper Roller Bearings	143	
<hr/>		
Spherical Roller Bearings	161	
<hr/>		
CARB[®] Compact Aligning Roller Bearings	183	
<hr/>		
Thrust Bearings	193	
<hr/>		
Ball and Roller Unit Blocks	213	
<hr/>		
Sleeves	287	
<hr/>		
Maintenance Products and Lubrication Charts	315	
<hr/>		
Other SKF Products	331	
<hr/>		
Part Number Index	347	

Table of contents

Introduction

Bearing characteristics	4
Bearing life: load capacities, life equations, selecting bearing size, static load carrying capacity	6
Bearing internal clearance, Vibration frequencies	9
SKF Explorer	10
Precision: high precision bearings, classes	12
New speed definition	12
Dimensional guidelines for mounting: Shaft tolerances for sleeve mounting and mounting on a tapered bore	13
Shaft and housing fits	16
Common prefixes and suffixes	25

Deep Groove Ball Bearings

Introduction	29
Standard bearings	34
Shielded and sealed	43
ICOS™	54
Snap ring	55
Filling slot (Max type)	58
Stainless steel	60
Double row	66
Single row cam followers	67
Inch sizes	68
Cartridge type	72

Angular contact Bearings

Introduction	73
Standard 40 degree 7200,7300	78
MRC 15 degree	83
MRC 29 degree 7200, 7300, 7400	86
Double row angular contact	91
QJ 200, 300 series	95
Double row cam followers	97

Self Aligning Ball Bearings

Introduction	99
Standard series	102
Sealed	105
Extended inner ring	106

Cylindrical Roller Bearings

Introduction	107
Standard range	112
Single row full complement	128
Double row full complement	133
Sealed double row full complement	138
Inch sizes	140

Taper Roller Bearings

Introduction	143
Metric, single row	146
Paired, face/face	155
Paired, back/back	158
Paired, tandem	160

Spherical Roller Bearings

Introduction	161
Standard series	166
Sealed	174
Vibratory	176
Printing press	179
Special "I"	181

CARB®

Introduction	183
Standard and full complement	186
Sealed	192

Thrust Bearings

Introduction	193
Ball type	196
Cylindrical roller	205
Spherical roller	208

Ball & Roller Unit Blocks

Ball Bearing types

Introduction	213
Pillow blocks	216
4 Bolt flanged units	223
2 Bolt flanged units	226
Take-up units	230
Pressed steel	231
Air handling	232
ConCentra	238
Bearings	239

Roller Bearing types

Introduction	249
Pillow blocks standard & ConCentra	250
Flanged units standard & ConCentra	252
Take-up units	259
ConCentra metric	261
Collar mounted roller bearings & accessories	262

Marathon Series, Composite

Pillow blocks	263
2 Bolt flanged units	265
4 Bolt flanged units	267
Tapped base	269
3 Bolt bracketed flanged	271
Narrow slot take-Up units	273
Wide slot take-up units	275
Stainless take-up frames	277
Coated cast iron pillow blocks	279
Coated cast iron 2 bolt flanged units	280
Coated cast iron 4 bolt flanged units	281
Coated cast iron tapped base units	282
Cast stainless pillow block units	283
Cast stainless 2 bolt flanged units	284
Cast stainless 4 bolt flanged units	285
Cast stainless tapped base units	286

Sleeves

Introduction	287
Metric	288
Inch	294
Inch USA version	302
Withdrawal	306

Maintenance and Lubrication Products

Mechanical tools	315
Bearing heaters	318
Hydraulic tools	320
Instruments	322
Lubricants and lubricators	324
Bearing greases and charts	327












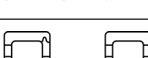






Other Products

Needle roller bearings	331
Track runner bearings	333
Supportive rollers	333
Cam followers	333
Split spherical and split CARB®	
Toroidal roller bearings	334
Slewing bearings	335
High-precision bearings for machine tools	337
Seals	339
SKF Systems Solutions/ SKF Copperhead	339
Spindle units	340
Linear motion products	342
Plain bearings	344

Part number index	347
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Bearing characteristics

This matrix can only provide a rough guide so that in each individual case it is necessary to make a more qualified selection referring to the information given on the following pages or www.skf.ca (Interactive Engineering Catalogue).

Bearing Type	Series	
Deep Groove Ball Bearings	16000, 200, 300, 6000, 61800, 61900, 6200, 6300, 6400	
Angular Contact Ball Bearings	7200, 7300, 7400	
	3300, 5200, 5300, BA2B 459000	
Four-point Contact Ball Bearings	QJ200, QJ300	
Self-aligning Ball Bearings	1200, 1300, 1400, 2200, 2300	
Thrust Ball Bearings	51000, 52000	
	53000, 54000	
Spherical Roller Thrust Bearings	29200, 29300, 29400	
Cylindrical Roller Bearings	N, NJ, NU (200, 300, 400)	
	NUP (200, 300, 400)	
	NNU4000, NN3000	
Full Complement Cylindrical Roller Bearings	NCF, NJG	
	NNC4800, NNCF, NNCL, NNF	
Spherical Roller Bearings	21000, 22000, 23000, 24000, 452000, 453000, I series	
CARB®	C2200, C2300, C3000, C3100, C3200, C39/100, C4000, C5900, C6000	
Needle Roller Bearings	HK, NA, NK, NKI, NKIS, NKS, RNA	
Taper Roller Bearings	30000, 31000, 32000, 33000, T2, T4, T7	
	31300DF, 32000DF	

Characteristics – suitability of bearing for:

radial capacity	axial capacity	speed	stiffness	quiet	low friction	compensation for misalignment	axial displacement possible in bearing	typical application
▲	●	+	▲	+	+	■	—	Textiles Power tools, Electric motors, Pumps, Gearboxes
▲	▲	▲	▲	▲	▲	■	—	Pumps, Compressors, Centrifuges
▲	▲	●	▲	●	●	—	—	Pumps, Compressors, Centrifuges
■	●	▲	●	●	●	—	—	Compressors
▲	■	▲	●	▲	▲	+	—	Fans, Paper making machines
—	▲	●	●	■	▲	—	—	Plastic extruder tools, Crane hooks
—	▲	●	●	■	●	—	—	Plastic extruder tools, Crane hooks
■	+	●	▲	■	●	+	—	Tunnel boring machines, Wind turbines, Cranes, Pumps, Electric motors
▲	—	+	▲	▲	▲	■	+	Traction motors, Electric motors, Gearboxes
▲	■	+	▲	●	▲	■	●	Traction motors, Electric motors, Gearboxes
+	—	+	+	▲	▲	—	+	Precision machines, Spindles
+	■	■	+	■	■	■	●	Elevators, Gearboxes
+	■	■	+	■	■	—	●	Cranes, Steel rolling mills, Wire ropes, Sheaves
■	+	●	▲	■	●	+	—	Fans, Paper, Gearboxes, Crushers, Vibrating screens
+	—	▲	+	●	●	+	+	Paper making machines, Gearboxes, Fans, Electric motors
▲	—	●	▲	●	■	—	+	Gearboxes (planetary), Alternators
▲	●	●	▲	●	●	■	—	Gearboxes, Cone crushers
+	●	●	+	●	●	■	—	Gearboxes, Rail car axle

Key

+ excellent ▲ good ● fair ■ poor — unsuitable

Load Carrying Capacity and Life

The size of a bearing to be used for an application is initially selected on the basis of its load carrying capacity in relation to the loads to be carried and the requirements regarding life and reliability. Numerical values termed basic load ratings are used in the calculations to express load carrying capacity. Values for the basic dynamic load rating C and the basic static load rating C_0 are quoted in the bearing tables.

Basic load ratings

The basic dynamic load rating C is used for calculations involving dynamically stressed bearings, for example, when selecting a bearing which is to rotate under load. It expresses the bearing load which will give an ISO basic rating life (defined below) of 1,000,000 revolutions.

The basic dynamic load ratings of SKF bearings have been determined in accordance with the methods prescribed by ISO 281:1990/Amd.1:2000 and ABMA Stds. 9 and 11. The values are based on the material and manufacturing techniques used for SKF standard production. They apply to loads which are constant both in magnitude and direction, for radial bearings radial loads, and for thrust bearings axial loads which act centrally.

The basic static load rating C_0 is used in calculations when the bearings are to rotate at very slow speeds, are to be subjected to very slow oscillating movements, or are to be stationary under load during certain periods. It must also be taken into account when heavy shock loads of short duration act on a rotating (dynamically stressed) bearing.

The basic static load rating is defined in accordance with ISO 76-1990 as the static load which corresponds to a calculated contact stress at the center of the most heavily loaded rolling element/raceway contact of:

- 667,000 psi (4,600 Mpa) for self-aligning ball bearings;
- 609,000 psi (4,200 Mpa) for all other ball bearings;
- 580,000 psi (4,000 Mpa) for all roller bearings.

This stress produces a total permanent deformation of rolling element and raceway which is approximately 0.0001 of the rolling element diameter. The loads are purely radial for radial bearings and centrally acting axial loads for thrust bearings.

Life

The life of a rolling bearing is defined as the number of revolutions (or the number of operating hours at a given constant speed) which the bearing is capable of enduring before the first sign of fatigue (flaking, spalling) occurs on one of its rings or rolling elements.

It is, however, evident from both laboratory tests and practical experience that seemingly identical bearings operating under identical conditions have different lives. A clearer definition of the term "life" is therefore essential for the calculation of bearing size. All information presented by SKF on dynamic load ratings is based on the life that 90% of a sufficiently large group of apparently identical bearings can be expected to attain or exceed. This is called the basic rating life and agrees with the ISO definition. The median life is approximately five times the calculated basic rating life.

There are several other bearing "lives". One of these is the "service life", which is the actual life achieved by a specific bearing before it fails. Failure is not generally by fatigue in the first instance but by wear, corrosion, seal failure, etc. Another is "specification life". This is the life specified by an authority and based on hypothetical load and speed data supplied by the same authority. It is generally a requisite L_{10} (basic rating life), and it is assumed that the authority has related the specification to experience gained with similar machinery, so that adequate service life will be obtained.

Practical experience and modern research have shown that, under special conditions, SKF bearings attain a much longer life than predicted by the standardized life calculation methods mentioned above, particularly when loads are light. These special conditions apply when the rolling surfaces (raceways and rolling elements) are effectively separated by a lubricant film and when surface damage caused by contaminants is limited. In fact, under ideal conditions, it is possible to speak of infinite life.

Selecting Bearing Size Using the Life Equations

Bearing life can be calculated with various degrees of sophistication, depending on the accuracy with which the operating conditions can be defined.

Basic rating life equation

The simplest method of life calculation is to use the ISO or ABMA equation for basic non-adjusted rating life which is:

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

where

- L_{10} = basic rating life, millions of revolutions
- C = basic dynamic load rating
- P = equivalent dynamic bearing load
- p = exponent of the life equation

For bearings operating at constant speed it may be more convenient to deal with a basic rating life expressed in operating hours using the equation:

$$L_{10h} = \frac{1\,000\,000}{60\,n} L_{10}$$

where

- L_{10h} = basic rating, operating hours
- n = rotational speed, r/min

SKF rating life

For modern high quality bearings the basic rating life can deviate significantly from the actual service life in a given application. Service life in a particular application depends on a variety of influencing factors including lubrication, the degree of contamination, misalignment, proper installation and environmental conditions.

Therefore ISO 281:1990/Amd 2:2000 contains a modified life equation to supplement the basic rating life. This life calculation makes use of a modification factor to account for the lubrication and contamination condition of the bearing and the fatigue limit of the material.

ISO 281:1990/Amd 2:2000 also makes provisions for bearing manufacturers to recommend a suitable method for calculating the life modification factor to be applied to a bearing based on operating conditions. The SKF life modification factor a_{SKF} applies the concept of a fatigue load limit P_u analogous to that used when calculating other machine components. The values of the fatigue load limit are given in the product tables. Furthermore, the SKF life modification factor a_{SKF} makes use of the lubrication conditions (viscosity ratio k) and a factor n_c for contamination level to reflect the application's operating conditions.

The equation for SKF rating life is in accordance with 281:1990/Amd 2:2000

$$L_{nm} = a_1 a_{SKF} L_{10} = a_1 a_{SKF} \left(\frac{C}{P}\right)^p$$

If the speed is constant, the life can be expressed in operating hours, using the equation

$$L_{nmh} = \frac{10^6}{60n} L_{nm}$$

where

- L_{nm} = SKF rating life (at 100 - n % reliability), millions of revolutions
- L_{nmh} = SKF rating life (at 100 - n % reliability), operating hours
- a_1 = life adjustment factor for reliability
- a_{SKF} = SKF life modification factor
- C = basic dynamic load rating, kN
- P = equivalent dynamic bearing load, kN
- n = rotational speed, r/min
- p = exponent of the life equation
= 3 for ball bearings
= 10/3 for roller bearings

This type of evaluation can be performed by SKF Application Engineers. Additional information on this subject can be found in the SKF General Catalogue (5000) or the Interactive Engineering Catalogue available at www.skf.ca.

Static Load Carrying Capacity

Bearing size should be selected on the basis of the basic static load rating C_0 instead of on bearing life when one of the following conditions pertains:

- the bearing is stationary and is subjected to continuous or intermittent (shock) loads;
- the bearing makes slow oscillating or alignment movements under load;
- the bearing rotates under load at very slow speed and is only required to have a short life (the life equation in this case, for a given equivalent load P would give such a low requisite basic dynamic load rating C , that the bearing selected on this basis would be subjected to considerable over-loading in service);
- the bearing rotates and, in addition to the normal operating loads, has to sustain heavy shock loads which act during a fraction of a revolution.

In all these cases, the permissible load for a bearing is determined not by material fatigue but by the permanent deformation caused by the load at the rolling element/ raceway contact. Loads acting on a stationary bearing or one which is slowly oscillating, as well as shock loads on a rotating bearing which act for only part of a revolution, produce flattened areas on the rolling elements and indentations in the raceways.

The indentations may be irregularly spaced around the raceway, or they may be evenly

spaced at positions corresponding to the spacing of the rolling elements. If the load acts for several revolutions of the bearing, the deformation will be evenly distributed over the whole raceway. The permanent deformations in the bearing can lead to vibration in the bearing, noisy operation and increased friction; it is also possible that the internal clearance will increase or the character of the fits may be changed. The extent to which these changes are detrimental to bearing performance depends on the demands placed on the bearing in a particular application. It is therefore necessary to ensure that permanent deformations cannot occur, or occur to a very limited extent only, by selecting a bearing with a sufficiently high static load carrying capacity, if one of the following demands has to be satisfied:

- silent running (for example, electric motors)
- vibration-free running (for example, machine tools)
- constant bearing friction torque (for example, measuring equipment and test apparatus)
- low starting friction under load (for example, cranes)

When determining bearing size based on static load carrying capacity, a given safety factor s_0 which represents the relationship between the basic static load rating C_0 and the equivalent static bearing load P_0 is used to calculate the requisite basic static load rating.

Requisite basic static load rating

The requisite basic static load rating C_0 can be determined from

$$C_0 = s_0 P_0$$

where

- C_0 = basic static load rating
- P_0 = equivalent static bearing load
- s_0 = static safety factor

Guideline values based on experience are given in **table 6** for the static safety factor s_0 for ball and roller bearings for various types of operation and requirements regarding smooth running.

At elevated temperatures the static load carrying capacity of bearings is reduced; further information will be supplied on request.

Checking the static load carrying capacity

For dynamically loaded bearings which have been selected with reference to life it is advisable, where the equivalent static bearing load is known, to check that the static load carrying capacity is adequate using

$$S_0 = \frac{C_0}{P_0}$$

If the s_0 value obtained is less than the recommended guideline value (see **table 6**) then a bearing having a higher basic static load rating should be selected.

Table 6 Guideline values for static safety factor s_0

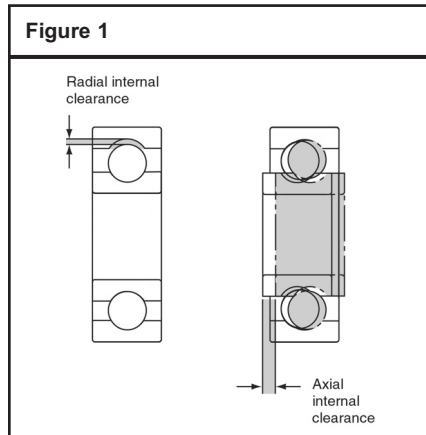
Type of operation	Rotating bearings						Non-rotating bearings	
	Requirements regarding quiet running							
	unimportant	normal	high					
	Ball bearings	Roller bearings	Ball bearings	Roller bearings	Ball bearings	Roller bearings	Ball bearings	Roller bearings
Smooth, vibration-free	0.5	1	1	1.5	2	3	0.4	0.8
Normal	0.5	1	1	1.5	2	3.5	0.5	1
Pronounced shock loads ¹⁾	> 1.5	> 2.5	> 1.5	> 3	> 2	> 4	> 1	> 2

For spherical roller thrust bearings it is advisable to use $s_0 > 4$

¹⁾ Where the magnitude of the load is not known values of s_0 which are at least as large as those quoted above should be used. If the magnitude of the shock loads is exactly known, smaller values of s_0 can be applied

Bearing Internal Clearance

Bearing internal clearance is defined as the total distance through which one bearing ring can be moved relative to the other in the radial direction (radial internal clearance) or in the axial direction (axial internal clearance). See **figure 1**.



It is necessary to distinguish between the internal clearance of a bearing before mounting and the internal clearance in a mounted bearing which has reached its operating temperature (operational clearance). The initial internal clearance (before mounting) is normally greater than the operational clearance because different degrees of interference in the fits and differences in thermal expansion of the bearing rings and the associated components cause the rings to be expanded or compressed.

The radial internal clearance of a bearing is of considerable importance if satisfactory operation is to be obtained. As a general rule, ball bearings should have an operational clearance which is virtually zero, or there may be a slight preload. Cylindrical and spherical roller bearings, on the other hand, should always have some residual clearance – however small – in operation. The same is true of taper roller bearings except in bearing arrangements where stiffness is desired, e.g. pinion bearing arrangements, where the bearings are mounted with a certain degree of preload.

The bearing internal clearance referred to as Normal (CN or C0) has been selected so that a suitable operational clearance will be obtained when bearings are mounted with the fits usually recommended and operating conditions are normal. Where operating and mounting conditions differ from the normal, for example, where interference fits are used for both bearing rings, unusual temperatures prevail etc. bearings with greater (C3) or smaller (C2) internal clearance than Normal are required. In such cases, it is recommended that the residual clearance in the bearing after it has been mounted should be checked.

Bearings having an internal clearance other than Normal are identified by the suffixes C1 to C5.

Tables giving the clearance values for the various bearing types will be found in the text preceding the relevant bearing table section. For paired single row angular contact ball bearings and taper roller bearings, double row angular contact ball bearings and four-point contact ball bearings, values for the axial internal clearance are given instead of radial clearance, as the axial clearance is of greater importance in application design for these bearing types.

Vibration Frequencies

Frequencies for most SKF bearings can be found at www.skf.ca under Interactive Engineering Catalogue.

SKF Explorer

A new level of performance

Over the years, manufacturing and materials research and process improvements have enabled machine components to get smaller without decreasing power output. With each developmental milestone, Engineers were given a choice; either downsize the application or increase power output. The new generation of SKF Explorer bearings represents the next significant improvement in performance. But this is not just a short hop to the next level. This is a quantum leap in bearing performance. Tests have shown that these bearings will last up to 3 times longer than the bearing you are currently using.

Improved materials enhance performance

Developments in the steel making process have created an extremely clean and homogenous steel with a minimum number of inclusions. This improved steel is so much cleaner than the highest grades covered by present classification methods that SKF experts developed new specifications with a view toward standardization.

To maximize the benefits of this improved steel, SKF developed new heat treatment procedures. These new procedures further improved the wear resistance of SKF Explorer bearings. In fact, wear resistance was improved so dramatically that SKF Engineers were not able to accurately predict life expectancy using existing life calculation methods. To enable users to predict bearing life more accurately, SKF has done the following:

- Increased basic dynamic load ratings and
- Added a factor to be considered when calculating life using the SKF Life Method

For more information, please contact SKF Application Engineering or visit www.skf.ca.

Reengineered for endurance

By studying the inter-relationship of each bearing component's design, molecular structure and finish, SKF scientists and Engineers were able to maximize the effects of lubrication and minimize the effects of friction, wear, contamination and vibration. To do this, the SKF research team had to literally reengineer each component at either the micro or molecular level, and then develop new procedures to consistently manufacture this new standard of excellence. These new procedures have tightened the manufacturing tolerance for all components used in SKF Explorer bearings.

Since its introduction in 1999, SKF has been making the investments necessary to upgrade other bearing types to the SKF Explorer quality level. Bearing types include Angular contact ball bearings, both single row and double row; Cylindrical roller bearings, Spherical roller thrust bearings and deep groove ball bearings. Depending on the type, have been shown to reduce vibrations, reduce heat, accommodate higher loads and longer service life. In all tests performed, SKF Explorer bearings lasted considerably longer than competitor bearings including non-Explorer SKF bearings.

Now that these other bearing types are available in SKF Explorer quality, OEM's can realize the full benefits of a complete SKF Explorer bearing arrangement. For instance an industrial gearbox manufacturer can now build a unit that contains not just SKF Explorer Sphericals, but can also contain SKF Explorer Cylindricals and SKF Explorer Spherical roller thrust bearings.

Note on SKF Explorer bearings

High performance SKF Explorer bearings are shown with an asterisk in the product tables. SKF Explorer bearings retain the designation of the standard bearings, however, each bearing and its box are marked with the name "**EXPLORER**".

What SKF Explorer does for your machine

Existing machine

Switching to SKF Explorer bearings give:

- several times the service life previously achieved,
- more machine uptime,
- higher safety factor,
- an appreciable reduction of machine cycle cost and, therefore, added value.

New machine with same power

SKF Explorer makes it possible to use a smaller bearing size which allows:

- more compact machines,
- higher speeds,
- smoother and quieter running,
- less lubricant usage,
- reduced friction, and will create added value.

Existing machine with increased power

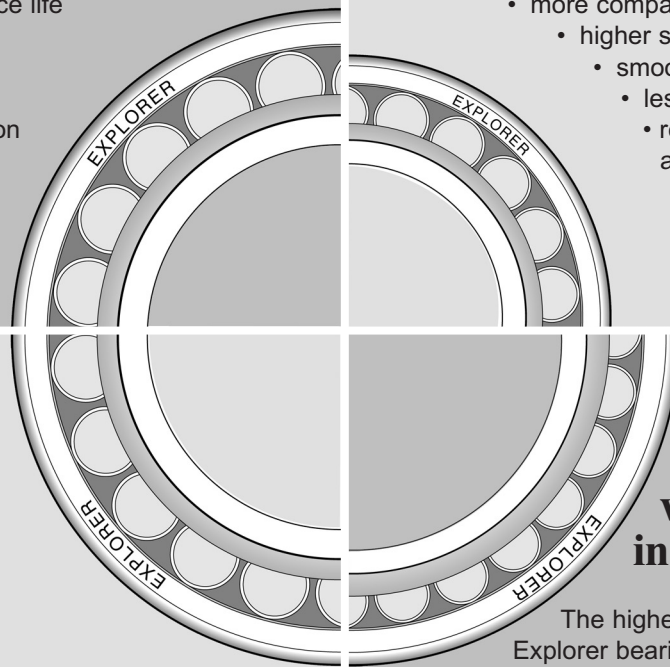
Same size SKF Explorer bearings allow power increases of 15 to 25% with:

- same service life,
- same machine uptime,
- same machine design, and higher added value.

New machine with same or increased power

The higher carrying capacity of SKF Explorer bearings allows the use of a lighter series with same outside diameter and increased bore diameter, so that:

- a stronger, or even hollow shaft can be used,
- the total design can be stiffer and also cheaper,
- system life is increased due to higher stiffness, and machine cycle cost is significantly reduced.



Precision, New speed definition

High Precision Bearings

All SKF bearings listed in this catalogue are precision products conforming to the stringent tolerance requirements of ABEC 1 or REBC 1. Certain ball bearings are made to higher (ABEC 5) tolerances.

There are, however, applications with stricter demands for high running accuracy and rigidity, low frictional torque and operating temperatures, and small temperature variations over a very wide speed range, such as machine tool spindles. The SKF precision catalogue 5002 describes SKF high precision bearings for such applications.

To meet the different demands for accuracy, SKF high precision bearings are made to a number of tolerance classes. A description of these is shown below.

High precision angular contact ball bearings

The SKF high precision angular contact ball bearings have been specially designed for grinding spindle applications, combining radial and axial load-carrying ability in one bearing.

Their high precision means virtually vibration-free operation. Their low friction, due to groove optimization, means lower

temperatures resulting in longer lubricant life and longer bearing service life.

SKF high precision angular contact ball bearings are manufactured as standard to tolerance class P4A, but may also be supplied to tolerance class PA9A.

Angular contact ball bearings are designed so the direction of load through the balls forms an angle with the radial plane of the bearing.

See catalogue 5002.

Comparison of different standards		
ABMA ¹⁾ Tolerance Class	ISO Tolerance Class	SKF Standard
ABEC 9	2	PA9A
ABEC 7	4	P4
ABEC 5	5	P5

¹⁾ ANSI/ABMA - American National Standards Institute/
Antifriction Bearing Manufacturers Association.

SKF tolerance classes for high-precision bearings		
SKF Tolerance Class	Boundary Dimensions ISO, ABMA	Running Accuracy ISO, ABMA
SP	ISO 5, ABEC 5	ISO 4, ABEC 7
UP	ISO 4, ABEC 7	ISO 2, ABEC 9
P4A	ISO 4, ABEC 7	ISO 2, ABEC 9 ¹⁾
P4C	ISO 4, ABEC 7	ISO 4, ABEC 7
PA9A	ISO 2, ABEC 9	ISO 2, ABEC 9

¹⁾ Up to 120mm bore diameter, for larger sizes, ABEC 7 or better

New Speed Definition

In the new SKF 5000 General Catalogue, SKF has introduced new definitions for speed ratings on bearings: Reference speed and Limiting speed.

Reference speed

The Reference speed is based on a temperature limit, in accordance with conditions set out in ISO 15312. The different conditions for oil and grease lubrication are selected so that for both, the same reference speed is valid. Any deviation from these conditions must be considered in order to determine the permissible speed. For full complement and sealed bearings no

reference speed is given, as the limiting speed is less than the reference speed. This is done to avoid running the bearings over an acceptable value.

Limiting speed

The Limiting speed is a kinematic limit based on the dynamic limitations of the bearing components (e.g., cage design, rolling element size, etc.). Limiting speeds are valid for the bearing design and standard cage execution shown. It is possible under certain conditions to run the bearings at higher speeds if some of the speed limiting factors

such as running accuracy, cage material and design, lubrication and heat dissipation can be improved.

Some open ball bearings have very low friction and reference speeds listed might be higher than the limiting speeds. Therefore the permissible speed needs to be calculated and compared to the limiting speed. Always limit the bearing to the lower of these 2 values.

See the General Catalogue 6000 on pages 108 and 114.

Shaft tolerances for bearings mounted on sleeves							
Shaft diameter		Diameter and form tolerances					
d Nominal over	incl.	h9 Deviations high	low	IT5 ¹⁾ Deviations max	h10 high	low	IT7 ¹⁾ max
mm		inch					
10	18	0	-0.0017	0.0003	0	-0.0028	0.0007
18	30	0	-0.0020	0.0004	0	-0.0033	0.0008
30	50	0	-0.0024	0.0004	0	-0.0039	0.0010
50	80	0	-0.0029	0.0005	0	-0.0047	0.0012
80	120	0	-0.0034	0.0006	0	-0.0055	0.0014
120	180	0	-0.0039	0.0008	0	-0.0063	0.0016
180	250	0	-0.0045	0.0008	0	-0.0073	0.0018
250	315	0	-0.0051	0.0009	0	-0.0083	0.0021
315	400	0	-0.0055	0.0098	0	-0.0091	0.0022
400	500	0	-0.0061	0.0016	0	-0.0098	0.0025
500	630	0	-0.0069	0.0013	0	-0.0110	0.0028
630	800	0	-0.0079	0.0014	0	-0.0126	0.0031
800	1 000	0	-0.0090	0.0016	0	-0.0142	0.0035
1 000	1 250	0	-0.0102	0.0019	0	0.0165	0.0041

1) The recommendation is for IT5/2 or IT7/2, because the tolerance zone t is a radius, however in the table above the values relate to a nominal shaft diameter and are therefore not halved

Mounting Bearings with Tapered Bore

Bearings with a tapered bore are always mounted with an interference fit. The reduction in radial internal clearance, or the axial displacement of the inner ring on its tapered seating is used as a measure of the degree of interference.

Suitable methods for mounting spherical roller bearings with tapered bore are:

- measuring the clearance reduction,
- measuring the lock nut tightening angle,
- measuring the axial drive-up,
- measuring the inner ring expansion.

Small bearings with a bore diameter up to 100 mm can be properly mounted by measuring the lock nut tightening angle. For larger bearings the SKF Drive-up Method is

recommended. This method is more accurate and takes less time than the procedure based on clearance reduction or the lock nut tightening angle. Measuring the inner ring expansion, i.e. applying the SKF SensorMount® Method, allows large size bearings to be mounted simply, quickly and accurately, since a sensor is integrated into the bearing inner ring.

Measuring clearance reduction

The method using feeler gauges for measuring the radial internal clearance before and after mounting bearings is applicable for medium and large-sized bearings. The clearance should always be measured between the outer ring and an unloaded roller (see fig 1). Before measuring, rotate the inner or outer ring

a few times. Care must be taken to see that both bearing rings and the roller complement are centrally arranged with respect to each other. For the first measurement, a blade should be selected which is slightly thinner than the minimum value for the clearance. The procedure should be repeated using slightly thicker blades each time until a certain resistance is felt when moving between

- outer ring and uppermost roller (a) – before mounting
- outer ring and lowest roller (b) – after mounting.

Guideline values for the permissible minimum clearance after mounting are given in **table 1**.

Figure 1

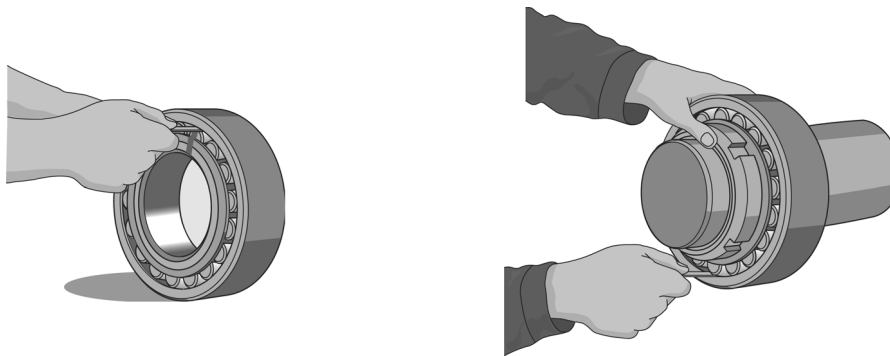
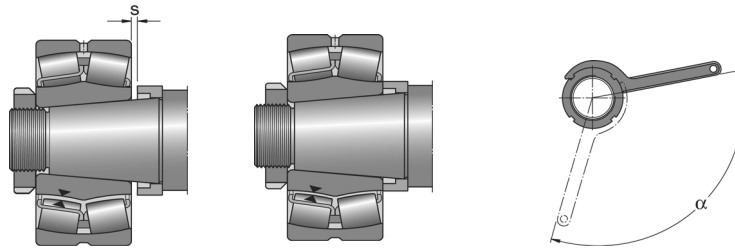


Table 1. Guideline values for reduction of radial internal clearance, axial drive-up and lock nut tightening angle



The locknut tightening method is valid for mounting on adapter sleeves only.

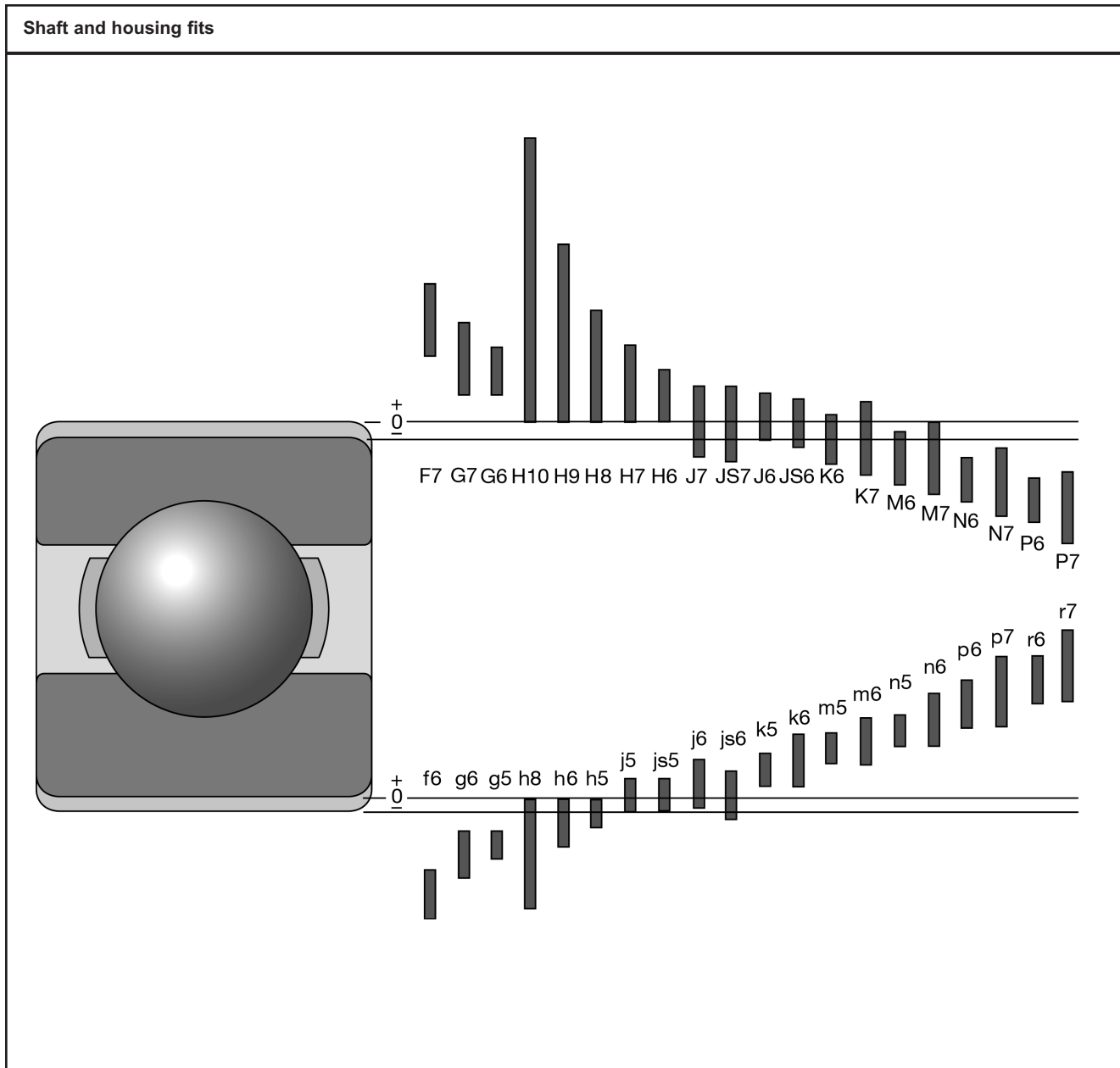
Bore diameter d		Reduction of radial internal clearance		Axial drive-up ¹⁾ s				Permissible residual ²⁾ radial clearance after mounting bearings with initial clearance			Lock nut tightening angle α
over	incl.	min	max	Taper 1:12		Taper 1:30		Normal	C3	C4	Taper 1:12
				min	max	min	max				degrees ³⁾
mm		in		in				in			
24	30	0.0006	0.0008	0.0118	0.0138	-	-	0.0006	0.0008	0.0014	110
30	40	0.0008	0.0010	0.0138	0.0157	-	-	0.0006	0.0010	0.0016	120
40	50	0.0010	0.0012	0.0157	0.0177	-	-	0.0008	0.0012	0.0020	130
50	65	0.0012	0.0016	0.0177	0.0236	0.1181	0.1575	0.0010	0.0014	0.0022	110
65	80	0.0016	0.0020	0.0236	0.0276	0.1260	0.1654	0.0010	0.0016	0.0028	130
80	100	0.0018	0.0024	0.0276	0.0354	0.0669	0.0866	0.0014	0.0020	0.0031	150
100	120	0.0020	0.0028	0.0295	0.0433	0.0748	0.1063	0.0020	0.0026	0.0039	-
120	140	0.0026	0.0035	0.0433	0.0551	0.1063	0.1378	0.0022	0.0031	0.0043	-
140	160	0.0030	0.0039	0.0472	0.0630	0.1181	0.1575	0.0022	0.0035	0.0051	-
160	180	0.0031	0.0043	0.0512	0.0669	0.1260	0.1654	0.0024	0.0039	0.0059	-
180	200	0.0035	0.0051	0.0551	0.0787	0.1378	0.1969	0.0028	0.0039	0.0063	-
200	225	0.0039	0.0055	0.0630	0.0866	0.1575	0.2165	0.0031	0.0047	0.0071	-
225	250	0.0043	0.0059	0.0669	0.0945	0.1654	0.2362	0.0035	0.0051	0.0079	-
250	280	0.0047	0.0067	0.0748	0.1063	0.1850	0.2638	0.0039	0.0055	0.0087	-
280	315	0.0051	0.0075	0.0787	0.1181	0.1969	0.2953	0.0043	0.0059	0.0094	-
315	355	0.0059	0.0083	0.0945	0.1299	0.2362	0.3228	0.0047	0.0067	0.0102	-
355	400	0.0067	0.0091	0.1024	0.1417	0.2559	0.3543	0.0051	0.0075	0.0114	-
400	450	0.0079	0.0102	0.1220	0.1575	0.3031	0.3937	0.0051	0.0079	0.0122	-
450	500	0.0083	0.0110	0.1299	0.1732	0.3228	0.4331	0.0063	0.0091	0.0138	-
500	560	0.0094	0.0126	0.1457	0.1969	0.3622	0.4921	0.0067	0.0098	0.0142	-
560	630	0.0102	0.0138	0.1575	0.2126	0.3937	0.5315	0.0079	0.0114	0.0161	-
630	710	0.0118	0.0157	0.1811	0.2441	0.4528	0.6102	0.0083	0.0122	0.0177	-
710	800	0.0134	0.0177	0.2087	0.2756	0.5236	0.6890	0.0091	0.0138	0.0201	-
800	900	0.0146	0.0197	0.2244	0.3071	0.5630	0.7677	0.0106	0.0154	0.0224	-
900	1 000	0.0161	0.0217	0.2480	0.3346	0.6220	0.8268	0.0118	0.0169	0.0252	-
1 000	1 120	0.0177	0.0236	0.2677	0.3543	0.6693	0.9055	0.0126	0.0189	0.0276	-
1 120	1 250	0.0193	0.0256	0.2913	0.3858	0.7283	0.9843	0.0134	0.0213	0.0303	-
1 250	1 400	0.0217	0.0283	0.3268	0.4252	0.8268	1.0630	0.0142	0.0232	0.0331	-
1 400	1 600	0.0236	0.0315	0.3583	0.4685	0.8937	1.1732	0.0157	0.0256	0.0362	-
1 600	1 800	0.0264	0.0354	0.4016	0.5276	1.0000	1.3228	0.0173	0.0283	0.0402	-

¹⁾ Valid only for solid steel shafts and general application. Not valid for the SKF Drive-up Method

²⁾ The residual clearance must be checked in cases where the initial radial internal clearance is in the lower half of the residual clearance must not be less than the minimum values quoted above

³⁾ 1:12 tapers only

Dimensional guidelines for mounting



Fits for solid steel shafts					
Radial bearings with cylindrical bore (except inch size bearings)					
Conditions	Examples	Shaft diameter, mm			Tolerance
		Ball bearings	Cylindrical and taper roller bearings		CARB and spherical roller bearings
Rotating inner ring load or direction of load indeterminate					
Light and variable loads ($P \leq 0.06 C$)	Conveyors, lightly loaded gearbox bearings	(18) to 100 (100) to 140	≤ 40 (40) to 100	–	j6 k6
Normal and heavy loads ($P > 0.06 C$)	Bearing applications generally, electric motors, turbines, pumps, internal combustion engines, gearing, woodworking machines	≤ 18 (18) to 100 (100) to 140 (140) to 200 (200) to 280 – – –	– ≤ 40 (40) to 100 (100) to 140 (140) to 200 (200) to 400 – – –	– ≤ 40 (40) to 65 (65) to 100 (100) to 140 (140) to 280 (280) to 500 > 500	j5 k5 (k6) ¹⁾ m5 (m6) ¹⁾ m6 n6 p6 r6 ²⁾ r7 ²⁾
Very heavy loads and shock loads with difficult working conditions ($P > 0.12 C$)	Axleboxes for heavy railway vehicles, traction motors, rolling mills	– – –	(50) to 140 (140) to 200 > 200	(50) to 100 (100) to 140 > 140	n6 ²⁾ p6 ²⁾ r6 ²⁾
High demands on running accuracy with light loads ($P < \text{or} = 0.06 C$)	Machine tools	8 to 240 – – – –	– 25 to 40 (40) to 140 (140) to 200 (200) to 500	– – – – –	js4 js4 (j5) ³⁾ k4 (k5) ³⁾ m5 ³⁾ n5 ³⁾
Stationary inner ring load					
Easy axial displacement of inner ring on shaft desirable	Wheels on non-rotating axles				g6 ⁴⁾
Easy axial displacement of inner ring on shaft unnecessary	Tension pulleys, rope sheaves				h6
Axial loads only					
	Bearing applications of all kinds	≤ 250 > 250	≤ 250 > 250	≤ 250 > 250	j6 js6
¹⁾ The tolerances in brackets are generally used for taper roller bearings and single row angular contact ball bearings, they can also be used for other types of bearing where speeds are moderate and the effect of bearing internal clearance variation is not significant ²⁾ Bearings with radial internal clearance greater than Normal may be necessary ³⁾ The tolerances in brackets apply to taper roller bearings. For lightly loaded taper roller bearings adjusted via the inner ring, js5 or js6 should be used ⁴⁾ Tolerance f6 can be selected for large bearings to provide easy displacement					

Fits for solid steel shafts			
Thrust bearings			
Conditions		Shaft diameter, mm	Tolerance
Axial loads only			
Thrust ball bearings	–		h6
Cylindrical roller thrust bearings	–		h6 (h8)
Cylindrical roller and cage thrust assemblies	–		h8
Combined radial and axial loads acting on spherical roller thrust bearings			
Stationary load on shaft washer		≤ 250 > 250	j6 js6
Rotating load on shaft washer, or direction of load indeterminate		≤ 200 (200) to 400 > 400	k6 m6 n6

Dimensional guidelines for mounting

Fits for cast iron and steel housings Radial bearings – non-split housings			
Conditions	Examples	Tolerance	Displacement of outer ring
Rotating outer ring load			
Heavy loads on bearings in thin-walled housings, heavy shock loads ($P > 0.12 C$)	Roller bearing wheel hubs, big-end bearings	P7	Cannot be displaced
Normal and heavy loads ($P > 0.06 C$)	Ball bearing wheel hubs, big-end bearings, crane travelling wheels	N7	Cannot be displaced
Light and variable loads ($P \leq 0.06 C$)	Conveyor rollers, rope sheaves, belt tensioner pulleys	M7	Cannot be displaced
Direction of load indeterminate			
Heavy shock loads	Electric traction motors	M7	Cannot be displaced
Normal and heavy loads ($P > 0.06 C$), axial displacement of outer ring unnecessary	Electric motors, pumps, crankshaft bearings	K7	Cannot be displaced as a rule
Accurate or quiet running¹⁾			
Ball bearings	Small electric motors	J6 ²⁾	Can be displaced
Taper roller bearings	When adjusted via the outer ring	JS5	–
	Axially located outer ring	K5	–
	Rotating outer ring load	M5	–
¹⁾ For high-precision bearings to tolerance class P5 or better, other recommendations apply (see the SKF catalogue "High-precision bearings") ²⁾ When easy displacement is required use H6 instead of J6			

Fits for cast iron and steel housings			
Radial bearings – split or non-split housings			
Conditions	Examples	Tolerance	Displacement of outer ring
Direction of load indeterminate			
Light and normal loads ($P \leq 0.12 C$), axial displacement of outer ring desirable	Medium-sized electrical machines, pumps, crankshaft bearings	J7	Can be displaced as a rule
Stationary outer ring load			
Loads of all kinds	General engineering, railway axleboxes	H7 ¹⁾	Can be displaced
Light and normal loads ($P \leq 0.12 C$) with simple working conditions	General engineering	H8	Can be displaced
Heat conduction through shaft	Drying cylinders, large electrical machines with spherical roller bearings	G7 ²⁾	Can be displaced
<p>¹⁾ For large bearings ($D > 250$ mm) and temperature differences between outer ring and housing $> 10^\circ\text{C}$, G7 should be used instead of H7</p> <p>²⁾ For large bearings ($D > 250$ mm) and temperature differences between outer ring and housing $> 10^\circ\text{C}$, F7 should be used instead of G7</p>			

Fits for cast iron and steel housings		
Thrust bearings		
Conditions	Tolerance	Remarks
Axial loads only		
Thrust ball bearings	H8	For less accurate bearing arrangements there can be a radial clearance of up to $0.001 D$
Cylindrical roller thrust bearings	H7 (H9)	
Cylindrical roller and cage thrust assemblies	H10	
Spherical roller thrust bearings where separate bearings provide radial location	–	Housing washer must be fitted with adequate radial clearance so that no radial load whatsoever can act on the thrust bearings
Combined radial and axial loads on spherical roller thrust bearings		
Stationary load on housing washer	H7	See also "Design of associated components" in section "Spherical roller thrust bearings" on page 193 .
Rotating load on housing washer	M7	

Common Prefixes and Suffixes

Also see introductory pages for each section

Prefixes

BMB	Sensorized Bearings
BS	Sealed Spherical Roller Bearings
EC	Y bearing end cover (MRC)
ECB	American for case hardened inner ring (SRB)
ECY	Y bearing end cover
GS	Housing washer of a cylindrical roller thrust bearing
K	Cylindrical roller & cage thrust assembly
K-	Inner ring with roller and cage assembly (cone) or outer ring (cup) of inch size taper roller bearing, belonging to an ABMA standard series.
L	Separate inner or outer ring of a separable bearing
R	Inner or outer ring with roller (and cage) assembly of a separable bearing
W	Stainless steel deep groove ball bearing
WS	Shaft washer of a cylindrical roller thrust bearing
ZE	Bearing with Sensor Mount® feature

Suffixes

A	Deviating or modified internal design with the same boundary dimensions. As a rule the significance of the letter is bound to the particular bearing or bearing series. Examples 4210 A: Double row deep groove ball bearings without filling slots. 3220 A: Double row angular contact ball bearing with a 30° contact angle.
ACD	Single row angular contact ball bearing with a 25° contact angle
ADA	Modified snap ring grooves in the outer ring: a two-piece inner ring held together by a retaining ring (CRB)
B	As shown in A above. Examples 7224B, single row angular contact bearing with 40° contact angle and 32210B, steeper contact angle on tapered roller bearing
B...	Combined with two or three digits, identifies variants of the standard design that cannot be identified by general suffixes ie. B20 reduced width tolerance.
C	As with A & B above. Example 21306C: Spherical roller bearing with a flangeless inner ring, symmetrical rollers, loose guide ring and a window-type steel cage
C	Y bearing with cylindrical O/D
CA	<ol style="list-style-type: none"> Spherical roller bearing of C design, but with retaining flanges on the inner ring and machined cage (probably brass) Single row angular contact bearing with universal matching. Two bearings arranged back/back, face/face with a slight axial clearance before mounting.
CAC	Spherical roller bearing of the CA design but with enhanced roller guidance
CB	<ol style="list-style-type: none"> Single row angular contact ball bearing for universal matching either face/face or back/back with normal clearance Controlled axial clearance of double row angular contact ball bearings

CC	<ol style="list-style-type: none"> Spherical roller bearing of C design but with enhanced roller guidance Single row angular contact ball bearing for universal matching, back/back, face/face with greater than CB clearance
CCK	Spherical roller bearing of C design but with enhanced roller guidance and 1:12 tapered bore
CCK/30	As CCK but with a 1:30 tapered bore
CD	Angular contact ball bearing with a 15° contact angle
CLN	Taper roller bearing with tolerances corresponding to ISO tolerance class 6X
CL0	Inch-size taper roller bearing with tolerances to class 0 according to ANSI/ABMA Standard 19.2:1994
CL00	Inch-size taper roller bearing with tolerances to class 3 according to ANSI/ABMA Standard 19.2:1994
CL3	Inch-size taper roller bearing with tolerances to class 3 according to ANSI/ABMA Standard 19.2:1994
CL7C	Taper roller bearings with special frictional behavior and higher running accuracy (pinion bearings)
CN	Normal internal clearance, normally only used with an additional letter that identifies a reduced or displaced clearance range. Examples: CNH Upper half of the Normal clearance range CNM Two middle quarters of the Normal clearance range CNL Lower half of the Normal clearance range
CNP	Upper half of the Normal and lower half of C3 CNR Cylindrical roller bearings with Normal clearance to DIN 620-4:1982 The above letters, H,M,L,P are also used with the following clearance classes C2, C3, C4.
CS	Contact seal of Nitrile Butadiene rubber (NBR) with sheet steel reinforcement on one side of the bearing
CS	15° contact angle on 7000 and 71900 series (high speed)
CS2	Contact seal of Fluoro rubber (FPM) with sheet steel reinforcement on one side of the bearing
CS5	Contact seal of hydrogenated Nitrile butadiene rubber (HNBR) with sheet steel reinforcement on one side of the bearing
2CS	Same as CS but a seal on both sides of the bearing
2CS2	Same as CS2 but a seal on both sides of the bearing
2CS5	Same as CS5 but a seal on both sides of the bearing
CV	Full complement cylindrical roller bearing with modified internal design
CX	15° contact angle, modified internal design
C02	Extra reduced tolerance for running accuracy of inner ring of assembled bearing
C04	Extra reduced tolerance for running accuracy of outer ring of assembled bearing
C08	C02 + C04
C083	C02 + C04 + C3

Prefixes and suffixes

C1	Bearing internal clearance smaller than C2	G..	Grease, a second letter indicates the operating temperature range of the grease and the third letter identifies the actual grease. The significance of the second letter is as follows:
C2	Bearing internal clearance smaller than normal (CN)	E	Extreme pressure grease
C3	Bearing internal clearance greater than normal (CN)	F	Food compatible grease
C4	Bearing internal clearance greater than C3	H,J	High temperature grease, -20 to +150°C
C5	Bearing internal clearance greater than C4	L	Low temperature grease, -50 to + 80°C
C10	Reduced tolerance for the bore and outside diameters (close to P6)	M	Medium temperature grease, -30 to +110°C
C40	Reduced O/D tolerance approaching nominal (P5)	W,X	Low/high temperature grease, -40 to +140°C
D	As with A, B & C, Example 3310D: Double row angular contact ball bearing with a two-piece inner ring	A figure following the three-letter grease code indicates that the filling degree deviates from the standard; Figures 1, 2, and 3 indicate smaller than standard, 4 up to 9 a larger fill.	
DA	Modified snap ring grooves in the outer ring: two-piece inner ring held together by a retaining ring	Examples;	
DB	Two single row deep groove ball bearings (1), single row angular contact ball bearings or (2) single row taper roller bearings matched for mounting in a back-to-back arrangement. The letter(s) following the DB indicate the magnitude of the axial clearance or preload in the bearing pair before mounting.	GEA	Extreme pressure grease, standard fill
A	Light preload (1,2)	GLB2	Low temperature grease, 15 to 25% fill
B	Moderate preload (1,2)	GA	Single row angular contact bearings for universal matching. Two bearings arranged back-to-back or face-to-face will have a light preload when mounted
C	Heavy preload (1,2)	GB	Single row angular contact ball bearing for universal matching. Two bearings arranged back-to-back or face-to-face will have a moderate preload when mounted.
CA	Small axial clearance (1,2)	GC	Single row angular contact ball bearing for universal matching. Two bearings arranged back-to-back or face-to-face will have a heavy preload when mounted
CB	Normal axial clearance (1,2)	GJN	Normal fill grade of Polyurea based grease of consistency of NLGI 2 and a temperature range -30 to + 150°C
CC	Large axial clearance (1,2)	H	Pressed snap-type steel cage, hardened (DRACBB)
C..	special axial clearance in microns	HA	Bearing or bearing components of case hardened steel. For closer identification HA is followed by one or the following figures
GA	Light preload (1,2)	0	Complete bearing
GB	Moderate preload (1,2)	1	Outer and inner rings
GC	Heavy preload (1,2)	2	Outer ring
G..	Special preload in daN. For paired SRACBB.	3	Inner ring
DF	Same as DB except in a face/face arrangement.	4	Outer ring, inner ring and rolling elements
DF03	Tapered roller bearings face/face with an outer spacer with lubrication holes. No groove	5	Rolling elements
DT	Two single row deep groove ball bearings, single row angular contact ball bearing or single row taper roller bearings matched for mounting in a tandem arrangement. For paired taper roller bearings the design and arrangement of the intermediate rings between the inner and/or outer rings are identified by a two-figure number which follows immediately after DT as DF03.	6	Outer ring and rolling elements
E	Deviating or modified internal design with the same boundary dimensions; as a rule the significance of the letter is bound to the particular bearing series; usually indicates reinforced rolling element complement Example: 7212BE; Single row angular contact ball bearing with a 40° contact angle and optimized internal design. (Increased capacity)	7	Inner ring and rolling elements
EC	Single row cylindrical roller bearing with an optimized internal design and with modified roller end/flange contact. (Higher capacity)	HB	Bainite hardened bearings or bearing components. For specific identification, HB is followed by one of the figures explained under HA
ECA	Spherical roller bearing of CA design but with reinforced rolling element complement	HC	Bearing or bearing components of ceramic material. For specific identification, HC is followed by one of the figures explained under HA
F	Machined steel or special cast iron cage, rolling element centred: different designs or materials are identified by a figure following the F e.g. F1	HE	Bearing or bearing components of vacuum re-melted steel. For specific identification, HE is followed by one of the figures explained under HA
FA	Machined steel or special cast iron cage; outer ring centred	HM	Martensite hardened bearing or bearing components. For specific identification HM is followed by one of the figures explained under HA
FB	Machined steel or special cast iron cage; inner ring centred	HN	Special surface heat-treatment bearing or bearing components. For specific identification HN is followed by one of the figures explained under HA
FM	Y bearing unit containing a YET bearing	HT	Grease for high operating temperatures (-20 to +130°C) Greases that differ from the selected standard grease for this temperature range is identified by two-figure numbers following HT. Filling degrees other than standard are identified by a letter or letter/figure combination following
G	Single row angular contact bearings for universal matching. Two bearings arranged back-to-back or face-to-face will have a certain axial clearance after mounting.		

Prefixes and suffixes

HTxx.	A Filling degree less than standard B Filling degree greater than standard C Filling degree greater than 70%. F1 Filling degree less than standard F7 Filling degree greater than standard F9 Filling degree greater than 70% Examples HTB, HT22 or HT24B	P5	Dimensional and running accuracy to ISO tolerance class 5 (ABEC 5)
HV	Bearing or bearing components of hardenable stainless steel. For specific details HV is followed by one of the figures explained under HA	P6	Dimensional and running accuracy to ISO tolerance class 6 (ABEC 3)
J	Unhardened, pressed steel cage, rolling element centred; different designs or materials are identified by a figure e.g. J1	P62	P6 + C2
JR	Cage comprising of two flat washers of unhardened sheet steel, riveted together	P63	P6 + C3
K	Tapered bore, taper 1:12	PA9A	Dimensional and running Accuracy to ISO class 2, (ABEC 9)
K30	Tapered bore, taper 1:30	Q	Optimized internal geometry and surface finish (taper roller bearings)
LHT	Grease fill for low and high operating temperatures (-40 to +140°C). A two-figure number following LHT identifies the actual grease. An additional letter or letter/figure combination as mentioned under "HT" identifies filling degrees other than standard. Examples: LHT23, LHT23C or LHT23F7	R	1. Flanged out ring (tapered roller bearings) 2. Crowned runner surface (track runner bearings)
L4B	Bearing rings and rolling elements with special surface coating (NoWear)	RS	Contact seal of synthetic rubber with or without sheet steel reinforcement on one side of the bearing
L5B	Rolling elements with special surface coating (NoWear)	RSH	Contact seal of Acrylonitrile butadiene rubber (NBR) with sheet steel reinforcement on one side of the bearing (new design)
L5DA	Bearing with coated rolling elements (NoWear)	RSL	Low-friction contact seal of Acrylonitrile butadiene rubber (NBR) with sheet steel reinforcement on one side of the bearing (new design)
L7DA	Bearing with coated rolling elements and inner ring raceway(s) (NoWear)	RSZ1	One RS1 seal with a steel shield on the opposite side of the bearing
M	Machined brass cage, rolling element centred; different designs or materials are identified by a figure, e.g. M2	RS1	Contact seal of Acrylonitrile butadiene rubber (NRB) with sheet steel reinforcement on one side of the bearing
MA	Machined brass cage, outer ring centred	RS2	Contact seal of Fluoro rubber (FPM) with sheet steel reinforcement on one side of the bearing (High temp)
MB	Machined brass cage, inner ring centred	RZ	Low-friction seal of Acrylonitrile butadiene rubber (NBR) with sheet steel reinforcement on one side of the bearing
ML	One-piece brass window-type cage, inner or outer ring centred	2RS	As RS but on both sides of the bearing
MP	One-piece brass window-type cage, with punched or reamed pockets, inner or outer ring centred	2RSH	As RSH but on both sides of the bearing
MR	One-piece brass window-type cage, rolling element centred	2RSL	As RSL but on both sides of the bearing
MT	Grease fill for medium operating temperatures (-30 to +110°C) A two-figure number follow MT identifies the actual grease. An additional letter or letter/figure combination as mentioned under "HT" identifies filling degrees other than standard. Examples: MT33, MT37F9 or MT47	2RZ	As RZ but on both sides of the bearing
M2	Roller riding machined brass cage no guide ring	2RS1	As RS1 but on both sides of the bearing
N	Snap ring groove in the outer ring	2RS2	As RS2 but on both sides of the bearing
NR	Snap ring and groove in the outer ring	SP	Boundary accuracy ISO class 5 (ABEC 5) Running accuracy ISO class 4 (ABEC 7)
N1	One locating slot (notch) in one outer ring side face	S0	Bearing rings or washers dimensionally stabilized for use at operating temperatures up to +150°C
N2	Two locating slots (notches) in one outer ring side face at 180° to each other	S1	Bearing rings or washers dimensionally stabilized for use at operating temperatures up to + 200°C
P	Injection moulded cage of glass fibre reinforced polyamide 6.6, rolling element centred.	S2	Bearing rings or washers dimensionally stabilized for use at operating temperatures up to + 250°C
PH	Injection moulded cage of Polyether Ether Ketone (PEEK), rolling element centred (High temp)	S3	Bearing rings or washers dimensionally stabilized for use at operating temperatures up to + 300°C
PHA	Injection moulded cage of Polyether Ether Ketone (PEEK), outer ring centred (High temp)	S4	Bearing rings or washers dimensionally stabilized for use at operating temperatures up t + 350°C
P4	Dimensional and running accuracy to ISO tolerance class 4 (ABEC 7)	T	Machined cage of fabric reinforced Phenolic resin, rolling element centred
P4A	Boundary accuracy to ISO class 4, running accuracy to ISO class 2 (over 120mm bore ABEC 7 or better)	TB	Window-type cage of fabric reinforced Phenolic resin, inner ring centred
		TC	Phenolic cage, inner ring centred
		TF	Y bearing unit containing a YAR bearing
		TH	Snap-type cage of fabric reinforced Phenolic resin, rolling element centred
		TN	Injection moulded cage of polyamide, rolling element centred
		TNH	Injection moulded cage of Polyether Ether Ketone (PEEK), rolling element centred (Hi temp)

Prefixes and suffixes continued...

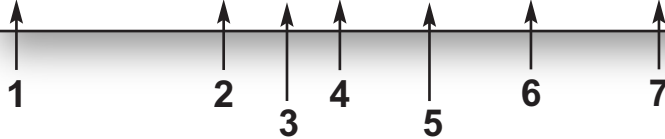
Prefixes and suffixes, Temperature conversions

TN9	Injection moulded cage of glass fibre reinforced polyamide 6.6 rolling element centred	VE553	Outer ring with three equally spaced threaded holes in both side faces to accommodate hoisting tackle
U	U combined with a one-figure number identifies a taper roller bearing cone or cup, with reduced width tolerance Examples: U2: Width tolerance +0.05/0 mm U4: Width tolerance +0.10/0 mm	VG114	Surface hardened pressed steel cage
UP	Boundary accuracy ISO class 4 (ABEC 7) Running accuracy ISO class 2 (ABEC 9)	VH	Full compliment cylindrical roller bearing with self-retaining roller set
V	Full complement bearing (without cage)	VL0241	Aluminum oxide coated outside surface of outer ring for electrical resistance up to 1000 V DC
V...	V combined with a second letter identifies a variant group and followed by a three or four-figure number denotes variants not covered by "standard" designation suffixes. Examples: VA Application oriented variants VB Boundary dimension deviations VE External or internal deviations VL Coatings VQ Quality VS Clearance and preload VT Lubrication VU Miscellaneous applications	VQ015	Inner ring with crowned raceway
VA201	Bearing for high-temperature applications (e.g. kiln trucks) Good up to +250°C Lubricating paste and 100 rpm	VQ424	Running accuracy better than C08
VA208	Bearing for high-temperature applications, good to 350°C (Graphite segment cage) and 100 rpm	VT143	Grease fill with an extreme pressure grease
VA228	Bearing for high-temperature applications, good to 350°C (Graphite cage) and 100 rpm	VX110	Spherical roller bearing with lubrication groove and six lubrication holes on inner ring
VA301	Bearing for traction motors	W	Without annular groove and lubrication holes in outer ring
VA305	VA301 + special inspection routines	WT	Grease fill for low as well as high operating temperatures (-40 to +160°C). Greases, which differ from the selected standard grease for this temperature range are identified as explained under "HT" Examples: WT or WTF1
VA3091	VA301 + VL0241	W20	Three lubrication holes in the outer ring (No groove)
VA405	Bearing for vibratory applications	W22	Reduced tolerance on the outer ring
VA406	Bearing for vibratory applications with special PTFE bore coating	W26	Six lubrication holes in the inner ring
VE240	CARB bearing modified for greater axial displacement	W31	Inspected to special quality control requirements
VE226	VX110, but with only three lubricating holes	W33	Annular groove and three lubrication holes in the outer ring
VE447	Shaft washer with three equally spaced threaded holes in one side face to accommodate hoisting tackle	W4	High point of eccentricity marked on inner ring or sleeve
VE552	Outer ring with three equally spaced threaded holes in one side face to accommodate hoisting tackle	W502	Combination of W22 and W33
		W507	Combination of W4, W31 & W33
		W509	Combination of W26, W31 & W33
		W513	W26 + W33
		W525	Combination of W31 and W77
		W64	Solid Oil fill
		W77	Plugged W33 lubrication holes
		X	1. Boundary dimensions altered to conform to ISO standards 2. Cylindrical runner surface (track runner bearing)
		Y	Pressed brass cage, rolling element centred: different designs or materials are identified by a figure following the Y, e.g. Y1
		Z	Shield of pressed sheet steel on one side of the bearing
		ZZ	Shields of pressed sheet steel on both sides of the bearing



Deep Groove Ball Bearings

W 6200-2Z JNR/C3 HC5 GJN

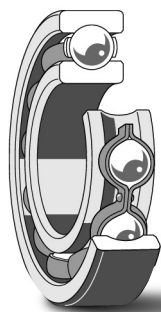


1. Prefix		TN Polyamide cage	6. Special offerings	
R MRC inch series		TN9 Fibreglass reinforced Polyamide	HC4 Full Ceramic bearing	
W Stainless		Y Pressed Brass cage, ball guided	HC5 Ceramic ball set	
2. Seals Shields		4. Modification		HYB MRC hybrid bearing
FF MRC shield designation SKF Z Metal backed one side of bearing (also SKF 2Z)		C MRC designation for Cartridge type bearing	VA201 Special specification for kiln trucks	
RS2 As RS1 but of Fluorocarbon rubber for higher temperatures (also 2RS2)		N Snap ring groove	VA 208 Graphite segment cage for hi- temp applications	
RSL As RZ, new design, (also 2RSL)		NR Snap ring & groove	VA 228 Graphite cage for hi-temp applications	
RSH As RS1 new design, (Also 2 RSH) for bearings of 60, 62 and 63 series up to 52mm o/d.		N1,N2 1 or 2 locating notches	7. Lubrication	
RZ Metal backed non-contact seal on one side (Also 2RZ)		S MRC Conrad type	GJN Di-urea, Hi-temp.115 cSt @ 40°C, range -40°C to + 150°C	
Z Metal plate		VL0241 Electrical insulation of outer ring	GMB Lithium, Medium temp.120 cSt @ 40°C, -30°C to + 110°C	
ZZ MRC seal designation (SKF 2RS1)		VL2071 Electrical insulation of inner ring	HT 51 Polyurea hi-temp, 110 cSt @ 40°C, -30°C to + 140°C	
2Z Steel plate on 2 sides		5. Clearance/Tolerances		LHT 23 Lithium,Wide range, 26 cSt @ 40°C, -50°C to + 140°C
3. Cage Design		C1 Clearance < C2	LHT 30 Lithium, Wide range, 74 cSt @ 40°C, -40°C to +180°C	
J Pressed steel cage, rolling element guided		C2 Clearance < Normal	LHT 64 Clay, Wide range,13 cSt @ 40°C, -73°C to + 149°C	
JEM Steel cage (J), quiet running, C3 clearance (not marked on bearing)**		C0,CN Normal not shown	MT33* Lithium, Medium temp. 74 cSt @ 40°C, -30°C to + 120°C	
M Machined brass cage, rolling element guided		C3 Clearance > C0 or CN	MT47* Lithium, Medium temp. 70 cSt @ 40°C, -30°C to + 110°C	
MA Machined brass cage, outer ring guided		C4 Clearance > C3	W64 Solid oil, various types available depending on the temperature range.	
TC Phenolic cage, inner ring guided		C78 P5 or ABEC 5 tolerance		
		C782 C78 + C2		
		C783 C78 + C3		
		P5 Tolerance to ISO class 5 or ABEC 5		
		** If sealed, use GJN grease		* See page 31 (top)

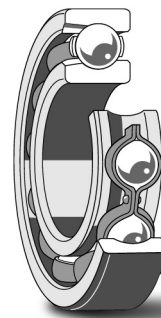
Deep groove ball bearings

Technical Features

Boundary Dimensions	In accordance with ISO 15:1998
Tolerances	<52mm OD ABEC 5 (ISO P5) 52mm <110 mm ABEC 3 (ISO P6) >110 mm OD ABEC 1 (Normal)
Heat Stabilization	257°F (125°C) Operating temperature -40°C to + 100°C or 120°C for short periods
Misalignment	2 minutes of arc
Cage Material Standard	Steel (J generally not shown) Optional Machined brass (M, MA) Polyamide (TN9)
Axial load - max	0.5xC ₀ for 6200, 6300 and 6400 series 0.25xC ₀ for 61800, 61900 and 6000 series
Seals and Shields	2RS1 - Nitrile rubber seals 2RS2 - Fluorocarbon seals (high temp) 2RZ - Nitrile rubber seals non-contact 2RSL - Nitrile rubber seals non-contact, new design 2RSH - Nitrile rubber seals, new design 2Z - Metal shields



**Single Row
Deep Groove Ball Bearing**
(data tables on page 34)



**Single Row
Deep Groove Ball Bearing
Max Type**
(data tables on page 58)



Deep groove ball bearings

Deep Groove Ball Bearing Standard Greases

(The grease is not shown in the part number)

On bearings W618__ and W619__ under 30mm on the O/D LT10 (Esso Beacon 325)

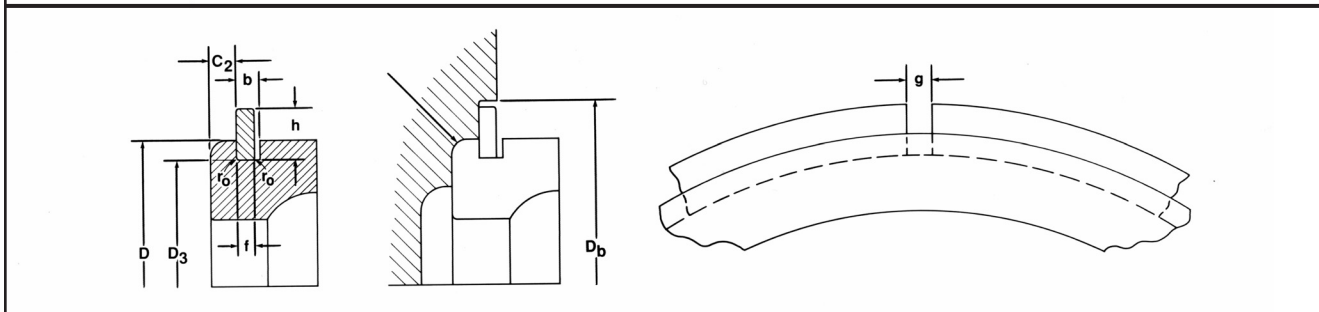
All other deep groove ball bearings up to 62mm on the O/D MT47 (Shell Alvania RLQ2)

All deep groove ball bearings over 62mm on the O/D MT33 (Shell Alvania R3)

MRC uses Esso Polyrex EM.

All other grease types should be shown with their appropriate suffixes.

Snap Ring and Snap Ring Groove Dimensions



Snap ring and groove dimensions - ball bearings

Outer ring O.D. D	Groove dia. max. D ₃	Groove location max. C ₂	Groove width min. b	Fillet radius max. f ₀	Ring thickness max. f	Ring section height max. h	Ring gap g	End cover D _b
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	214 8.4

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.

* Other greases are available on request.

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 C0 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 or less than Normal (C3, C2 respectively).

The values of the clearance limits for single row deep groove ball bearings are shown in **table 1**. They 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

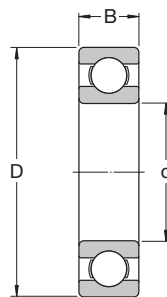
Bore diameter d		Radial internal clearance																			
		C2				Normal				C3				C4				C5			
over	incl.	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max				
mm		μm		in		μm		in		μm		in		μm		in					
2.5	10	0	7	0.0000	0.0003	2	13	0.0001	0.0005	8	23	0.0003	0.0009	14	29	0.0006	0.0011	20	37	0.0008	0.0015
10	18	0	9	0.0000	0.0004	3	18	0.0001	0.0007	11	25	0.0004	0.0010	18	33	0.0007	0.0013	25	45	0.0010	0.0018
18	24	0	10	0.0000	0.0004	5	20	0.0002	0.0008	13	28	0.0005	0.0011	20	36	0.0008	0.0014	28	48	0.0011	0.0019
24	30	1	11	0.0000	0.0004	5	20	0.0002	0.0008	13	28	0.0005	0.0011	23	41	0.0009	0.0016	30	53	0.0012	0.0021
30	40	1	11	0.0000	0.0004	6	20	0.0002	0.0008	15	33	0.0006	0.0013	28	46	0.0011	0.0018	40	64	0.0016	0.0025
40	50	1	11	0.0000	0.0004	6	23	0.0002	0.0009	18	36	0.0007	0.0014	30	51	0.0012	0.0020	45	73	0.0018	0.0029
50	65	1	15	0.0000	0.0006	8	28	0.0003	0.0011	23	43	0.0009	0.0017	38	61	0.0015	0.0024	55	90	0.0022	0.0035
65	80	1	15	0.0000	0.0006	10	30	0.0004	0.0012	25	51	0.0010	0.0020	46	71	0.0018	0.0028	65	105	0.0026	0.0041
80	100	1	18	0.0000	0.0007	12	36	0.0005	0.0014	30	58	0.0012	0.0023	53	84	0.0021	0.0033	75	120	0.0030	0.0047
100	120	2	20	0.0001	0.0008	15	41	0.0006	0.0016	36	66	0.0014	0.0026	61	97	0.0024	0.0038	90	140	0.0035	0.0055
120	140	2	23	0.0001	0.0009	18	48	0.0007	0.0019	41	81	0.0016	0.0032	71	114	0.0028	0.0045	105	160	0.0041	0.0063
140	160	2	23	0.0001	0.0009	18	53	0.0007	0.0021	46	91	0.0018	0.0036	81	130	0.0032	0.0051	120	180	0.0047	0.0071
160	180	2	25	0.0001	0.0010	20	61	0.0008	0.0024	53	102	0.0021	0.0040	91	147	0.0036	0.0058	135	200	0.0053	0.0079
180	200	2	30	0.0001	0.0012	25	71	0.0010	0.0028	63	117	0.0025	0.0046	107	163	0.0042	0.0064	150	230	0.0059	0.0091
200	225	4	32	0.0002	0.0013	28	82	0.0011	0.0032	73	132	0.0029	0.0052	120	187	0.0047	0.0074	175	255	0.0069	0.0100
225	250	4	36	0.0002	0.0014	31	92	0.0012	0.0036	87	152	0.0034	0.0060	140	217	0.0055	0.0085	205	290	0.0081	0.0114
250	280	4	39	0.0002	0.0015	36	97	0.0014	0.0038	97	162	0.0038	0.0064	152	237	0.0060	0.0093	255	320	0.0100	0.0126
280	315	8	45	0.0003	0.0018	42	110	0.0017	0.0043	110	180	0.0043	0.0071	175	260	0.0069	0.0102	260	360	0.0102	0.0142
315	355	8	50	0.0003	0.0020	50	120	0.0020	0.0047	120	200	0.0047	0.0079	200	290	0.0079	0.0114	290	405	0.0114	0.0159
355	400	8	60	0.0003	0.0024	60	140	0.0024	0.0055	140	230	0.0055	0.0091	230	330	0.0091	0.0130	330	460	0.0130	0.0181
400	450	10	70	0.0004	0.0028	70	160	0.0028	0.0063	160	260	0.0063	0.0102	260	370	0.0102	0.0146	370	520	0.0146	0.0205
450	500	10	80	0.0004	0.0031	80	180	0.0031	0.0071	180	290	0.0071	0.0114	290	410	0.0114	0.0161	410	570	0.0161	0.0224
500	560	20	90	0.0008	0.0035	90	200	0.0035	0.0079	200	320	0.0079	0.0126	320	460	0.0126	0.0181	460	630	0.0181	0.0248
560	630	20	100	0.0008	0.0039	100	220	0.0039	0.0087	220	350	0.0087	0.0138	350	510	0.0138	0.0201	510	700	0.0201	0.0276
630	710	30	120	0.0012	0.0047	120	250	0.0047	0.0098	250	390	0.0098	0.0154	390	560	0.0154	0.0220	560	780	0.0220	0.0307
710	800	30	130	0.0012	0.0051	130	280	0.0051	0.0110	280	440	0.0111	0.0173	440	620	0.0173	0.0244	620	860	0.0244	0.0339
800	900	30	150	0.0012	0.0059	150	310	0.0059	0.0122	310	490	0.0122	0.0193	490	690	0.0193	0.0272	690	960	0.0272	0.0378
900	1 000	40	160	0.0016	0.0063	160	340	0.0063	0.0134	340	540	0.0134	0.0213	540	760	0.0213	0.0299	760	1040	0.0299	0.0409
1 000	1 120	40	170	0.0016	0.0067	170	370	0.0067	0.0146	370	590	0.0146	0.0232	590	840	0.0232	0.0331	840	1120	0.0331	0.0441



Single row deep groove ball bearings

d 3 - 12 mm

d 0.118 - 0.472 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass kg	Designation
d	D	B	d	D	B	dynamic C	static C_0		Reference speed	Limiting speed		
mm			in			kN		kN	r/min			—
3	10	4	0.118	0.394	0.157	0.54	0.18	0.007	130 000	80 000	0.0015	623
4	9	2.5	0.157	0.354	0.098	0.54	0.18	0.007	140 000	85 000	0.0007	618/4
	11	4		0.433	0.157	0.715	0.232	0.01	130 000	80 000	0.0017	619/4
	12	4		0.472	0.157	0.806	0.28	0.012	120 000	75 000	0.0021	604
	13	5		0.512	0.197	0.936	0.29	0.012	110 000	67 000	0.0031	624
	16	5		0.630	0.197	1.11	0.38	0.016	95 000	60 000	0.0054	634
5	11	3	0.197	0.433	0.118	0.637	0.255	0.011	120 000	75 000	0.0012	618/5
	13	4		0.512	0.157	0.884	0.34	0.014	110 000	67 000	0.0025	619/5
	16	5		0.630	0.197	1.14	0.38	0.016	95 000	60 000	0.005	*625
	19	6		0.748	0.236	2.34	0.95	0.04	80 000	50 000	0.009	*635
6	13	3.5	0.236	0.512	0.138	0.884	0.345	0.015	110 000	67 000	0.002	618/6
	15	5		0.591	0.197	1.24	0.475	0.02	100 000	63 000	0.0039	619/6
	19	6		0.748	0.236	2.34	0.95	0.04	80 000	50 000	0.0084	*626
7	14	3.5	0.276	0.551	0.138	0.956	0.4	0.017	100 000	63 000	0.0022	618/7
	17	5		0.669	0.197	1.48	0.56	0.024	90 000	56 000	0.0049	619/7
	19	6		0.748	0.236	2.34	0.95	0.04	85 000	53 000	0.0075	*607
	22	7		0.866	0.276	3.45	1.37	0.057	70 000	45 000	0.013	*627
8	16	4	0.315	0.630	0.157	1.33	0.57	0.024	90 000	56 000	0.003	618/8
	19	6		0.748	0.236	1.9	0.735	0.031	80 000	50 000	0.0071	619/8
	22	7		0.866	0.276	3.45	1.37	0.057	75 000	48 000	0.012	*608
	24	8		0.945	0.315	3.9	1.66	0.071	63 000	40 000	0.017	*628
9	17	4	0.354	0.669	0.157	1.43	0.64	0.027	85 000	53 000	0.0034	618/9
	20	6		0.787	0.236	2.08	0.865	0.036	80 000	48 000	0.0076	619/9
	24	7		0.945	0.276	3.9	1.66	0.071	70 000	43 000	0.014	*609
	26	8		1.024	0.315	4.75	1.96	0.083	60 000	38 000	0.02	*629
10	19	5	0.394	0.748	0.197	1.38	0.585	0.025	80 000	48 000	0.0055	61800
	22	6		0.866	0.236	2.08	0.85	0.036	75 000	45 000	0.01	61900
	26	8		1.024	0.315	4.75	1.96	0.083	67 000	40 000	0.019	*6000
	28	8		1.102	0.315	4.62	1.96	0.083	63 000	40 000	0.022	16100
	30	9		1.181	0.354	5.4	2.36	0.1	56 000	34 000	0.032	*6200
	35	11		1.378	0.433	8.52	3.4	0.143	50 000	32 000	0.053	*6300
12	21	5	0.472	0.827	0.197	1.43	0.67	0.028	70 000	43 000	0.0063	61801
	24	6		0.945	0.236	2.25	0.98	0.043	67 000	40 000	0.011	61901
	28	8		1.102	0.315	5.4	2.36	0.1	60 000	38 000	0.022	*6001
	30	8		1.181	0.315	5.07	2.36	0.1	56 000	34 000	0.023	16101
	32	10		1.260	0.394	7.28	3.1	0.132	50 000	32 000	0.037	*6201
	37	12		1.457	0.472	10.1	4.15	0.176	45 000	28 000	0.06	*6301

* SKF Explorer bearing

Single row deep groove ball bearings

d 15 - 25 mm

d 0.591 - 0.984 in



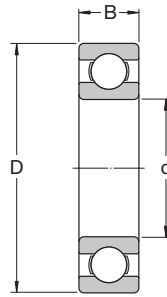
Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass kg	Designation		
d	D	B	d	D	B	dynamic C	static C_0		Reference speed	Limiting speed				
			in			kN		kN	r/min			—		
15	24	5	0.591	0.945	0.197	1.56	0.8	0.034	60 000	38 000	0.0074	61802		
	28	7		1.102	0.276	4.36	2.24	0.095	56 000	34 000	0.016	61902		
	32	8		1.260	0.315	5.85	2.85	0.12	50 000	32 000	0.025	*16002		
	32	9		1.260	0.354	5.85	2.85	0.12	50 000	32 000	0.03	*6002		
	35	11		1.378	0.433	8.06	3.75	0.16	43 000	28 000	0.045	*6202		
	42	13		1.654	0.512	11.9	5.4	0.228	38 000	24 000	0.082	*6302		
17	26	5	0.669	1.024	0.197	1.68	0.93	0.039	56 000	34 000	0.0082	61803		
	30	7		1.181	0.276	4.62	2.55	0.108	50 000	32 000	0.018	61903		
	35	8		1.378	0.315	6.37	3.25	0.137	45 000	28 000	0.032	*16003		
	35	10		1.378	0.394	6.37	3.25	0.137	45 000	28 000	0.039	*6003		
	40	9		1.575	0.354	9.56	4.75	0.2	38 000	24 000	0.048	98203		
	40	12		1.575	0.472	9.95	4.75	0.2	38 000	24 000	0.065	*6203		
	40	12		1.575	0.472	11.4	5.4	0.228	38 000	24 000	0.064	6203 ETN9		
	47	14		1.850	0.551	14.3	6.55	0.275	34 000	22 000	0.12	*6303		
	62	17		2.441	0.669	22.9	10.8	0.455	28 000	18 000	0.27	6403		
	20	32		7	0.787	1.260	0.276	4.03	2.32	0.104	45 000	28 000	0.018	61804
		37		9		1.457	0.354	6.37	3.65	0.156	43 000	26 000	0.038	61904
42		8	1.654	0.315		7.28	4.05	0.173	38 000	24 000	0.05	*16004		
42		9	1.654	0.354		7.93	4.5	0.19	38 000	24 000	0.051	98204 Y		
42		12	1.654	0.472		9.95	5	0.212	38 000	24 000	0.069	*6004		
47		14	1.850	0.551		13.5	6.55	0.28	32 000	20 000	0.11	*6204		
47		14	1.850	0.551		15.6	7.65	0.325	32 000	20 000	0.096	6204 ETN9		
52		15	2.047	0.591		16.8	7.8	0.335	30 000	19 000	0.14	*6304		
52		15	2.047	0.591		18.2	9	0.38	30 000	19 000	0.14	6304 ETN9		
72		19	2.835	0.748		30.7	15	0.64	24 000	15 000	0.4	6404		
22	50	14	0.866	1.969	0.551	14	7.65	0.325	30 000	19 000	0.12	62/22		
	56	16		2.205	0.630	18.6	9.3	0.39	28 000	18 000	0.18	63/22		
25	37	7	0.984	1.457	0.276	4.36	2.6	0.125	38 000	24 000	0.022	61805		
	42	9		1.654	0.354	7.02	4.3	0.193	36 000	22 000	0.045	61905		
	47	8		1.850	0.315	8.06	4.75	0.212	32 000	20 000	0.06	*16005		
	47	12		1.850	0.472	11.9	6.55	0.275	32 000	20 000	0.08	*6005		
	52	9		2.047	0.354	10.6	6.55	0.28	28 000	18 000	0.078	98205		
	52	15		2.047	0.591	14.8	7.8	0.335	28 000	18 000	0.13	*6205		
	52	15		2.047	0.591	17.8	9.8	0.4	28 000	18 000	0.12	6205 ETN9		
	62	17		2.441	0.669	23.4	11.6	0.49	24 000	16 000	0.23	*6305		
	62	17		2.441	0.669	26	13.4	0.57	24 000	16 000	0.21	6305 ETN9		
	80	21		3.150	0.827	35.8	19.3	0.82	20 000	13 000	0.53	6405		

* SKF Explorer bearing

Single row deep groove ball bearings

d 28 - 50 mm

d 1.102 - 1.969 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass kg	Designation
d	D	B	d	D	B	dynamic C	static C_0		Reference speed	Limiting speed		
mm			in			kN		r/min				
28	58	16	1.102	2.283	0.630	16.8	9.5	0.405	26 000	16 000	0.18	62/28
	68	18		2.677	0.709	25.1	13.7	0.585	22 000	14 000	0.29	63/28
30	42	7	1.181	1.654	0.276	4.49	2.9	0.146	32 000	20 000	0.027	61806
	47	9		1.850	0.354	7.28	4.55	0.212	30 000	19 000	0.051	61906
	55	9		2.165	0.354	11.9	7.35	0.31	28 000	17 000	0.085	*16006
	55	13		2.165	0.512	13.8	8.3	0.355	28 000	17 000	0.12	*6006
	62	10		2.441	0.394	15.9	10.2	0.44	22 000	14 000	0.12	98206
	62	16		2.441	0.630	20.3	11.2	0.48	24 000	15 000	0.2	*6206
	62	16		2.441	0.630	23.4	12.9	0.54	24 000	15 000	0.19	6206 ETN9
	72	19		2.835	0.748	29.6	16	0.67	20 000	13 000	0.35	*6306
	72	19		2.835	0.748	32.5	17.3	0.74	22 000	14 000	0.33	6306 ETN9
	90	23		3.543	0.906	43.6	23.6	1	18 000	11 000	0.74	6406
35	47	7	1.378	1.850	0.276	4.75	3.2	0.17	28 000	18 000	0.03	61807
	55	10		2.165	0.394	9.56	6.8	0.29	26 000	16 000	0.08	61907
	62	9		2.441	0.354	13	8.15	0.38	24 000	15 000	0.11	*16007
	62	14		2.441	0.551	16.8	10.2	0.44	24 000	15 000	0.16	*6007
	72	17		2.835	0.669	27	15.3	0.66	20 000	13 000	0.29	*6207
	72	17		2.835	0.669	31.2	17.6	0.75	20 000	13 000	0.27	6207 ETN9
	80	21		3.150	0.827	35.1	19	0.82	19 000	12 000	0.46	*6307
	100	25		3.937	0.984	55.3	31	1.29	16 000	10 000	0.95	6407
40	52	7	1.575	2.047	0.276	4.94	3.45	0.19	26 000	16 000	0.034	61808
	62	12		2.441	0.472	13.8	10	0.43	24 000	14 000	0.12	61908
	68	9		2.677	0.354	13.8	9.15	0.44	22 000	14 000	0.13	*16008
	68	15		2.677	0.591	17.8	11.6	0.49	22 000	14 000	0.19	*6008
	80	18		3.150	0.709	32.5	19	0.8	18 000	11 000	0.37	*6208
	80	18		3.150	0.709	35.8	20.8	0.88	18 000	11 000	0.34	6208 ETN9
	90	23		3.543	0.906	42.3	24	1.02	17 000	11 000	0.63	*6308
	110	27		4.331	1.063	63.7	36.5	1.53	14 000	9 000	1.25	6408
45	58	7	1.772	2.283	0.276	6.63	6.1	0.26	22 000	14 000	0.04	61809
	68	12		2.677	0.472	14	10.8	0.47	20 000	13 000	0.14	61909
	75	10		2.953	0.394	16.5	10.8	0.52	20 000	12 000	0.17	*16009
	75	16		2.953	0.630	22.1	14.6	0.64	20 000	12 000	0.25	*6009
	85	19		3.346	0.748	35.1	21.6	0.92	17 000	11 000	0.41	*6209
	100	25		3.937	0.984	55.3	31.5	1.34	15 000	9 500	0.83	*6309
	120	29		4.724	1.142	76.1	45	1.9	13 000	8 500	1.55	6409
50	65	7	1.969	2.559	0.276	6.76	6.8	0.285	20 000	13 000	0.052	61810
	72	12		2.835	0.472	14.6	11.8	0.5	19 000	12 000	0.14	61910
	80	10		3.150	0.394	16.8	11.4	0.56	18 000	11 000	0.18	*16010
	80	16		3.150	0.630	22.9	16	0.71	18 000	11 000	0.26	*6010
	90	20		3.543	0.787	37.1	23.2	0.98	15 000	10 000	0.46	*6210
	110	27		4.331	1.063	65	38	1.6	13 000	8 500	1.05	*6310
	130	31		5.118	1.220	87.1	52	2.2	12 000	7 500	1.9	6410

* SKF Explorer bearing

Single row deep groove ball bearings

d 55 - 80 mm

d 2.165 - 3.150 in



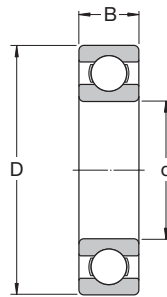
Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass kg	Designation
d	D	B	d	D	B	dynamic C	static C_0		Reference speed	Limiting speed		
			in			kN		kN	r/min			
55	72	9	2.165	2.835	0.354	9.04	8.8	0.38	19 000	12 000	0.083	61811
	80	13		3.150	0.512	16.5	14	0.6	17 000	11 000	0.19	61911
	90	11		3.543	0.433	20.3	14	0.7	16 000	10 000	0.26	* 16011
	90	18		3.543	0.709	29.6	21.2	0.9	16 000	10 000	0.39	* 6011
	100	21		3.937	0.827	46.2	29	1.25	14 000	9 000	0.61	* 6211
	120	29		4.724	1.142	74.1	45	1.9	12 000	8 000	1.35	* 6311
	140	33		5.512	1.299	99.5	62	2.6	11 000	7 000	2.3	6411
60	78	10	2.362	3.071	0.394	11.9	11.4	0.49	17 000	11 000	0.11	61812
	85	13		3.346	0.512	16.5	14.3	0.6	16 000	10 000	0.2	61912
	95	11		3.740	0.433	20.8	15	0.74	15 000	9 500	0.28	* 16012
	95	18		3.740	0.709	30.7	23.2	0.98	15 000	9 500	0.42	* 6012
	110	22		4.331	0.866	55.3	36	1.53	13 000	8 000	0.78	* 6212
	130	31		5.118	1.220	85.2	52	2.2	11 000	7 000	1.7	* 6312
	150	35		5.906	1.378	108	69.5	2.9	10 000	6 300	2.75	6412
65	85	10	2.559	3.346	0.394	12.4	12.7	0.54	16 000	10 000	0.13	61813
	90	13		3.543	0.512	17.4	16	0.68	15 000	9 500	0.22	61913
	100	11		3.937	0.433	22.5	16.6	0.83	14 000	9 000	0.3	* 16013
	100	18		3.937	0.709	31.9	25	1.06	14 000	9 000	0.44	* 6013
	120	23		4.724	0.906	58.5	40.5	1.73	12 000	7 500	0.99	* 6213
	140	33		5.512	1.299	97.5	60	2.5	10 000	6 700	2.1	* 6313
	160	37		6.299	1.457	119	78	3.15	9 500	6 000	3.3	6413
70	90	10	2.756	3.543	0.394	12.4	13.2	0.56	15 000	9 000	0.14	61814
	100	16		3.937	0.630	23.8	21.2	0.9	14 000	8 500	0.35	61914
	110	13		4.331	0.512	29.1	25	1.06	13 000	8 000	0.43	* 16014
	110	20		4.331	0.787	39.7	31	1.32	13 000	8 000	0.6	* 6014
	125	24		4.921	0.945	63.7	45	1.9	11 000	7 000	1.05	* 6214
	150	35		5.906	1.378	111	68	2.75	9 500	6 300	2.5	* 6314
	180	42		7.087	1.654	143	104	3.9	8 500	5 300	4.85	6414
75	95	10	2.953	3.740	0.394	12.7	14.3	0.61	14 000	8 500	0.15	61815
	105	16		4.134	0.630	24.2	19.3	0.965	13 000	8 000	0.37	61915
	110	12		4.331	0.472	28.6	27	1.14	13 000	8 000	0.38	16115
	115	13		4.528	0.512	30.2	27	1.14	12 000	7 500	0.46	* 16015
	115	20		4.528	0.787	41.6	33.5	1.43	12 000	7 500	0.64	* 6015
	130	25		5.118	0.984	68.9	49	2.04	10 000	6 700	1.2	* 6215
	160	37		6.299	1.457	119	76.5	3	9 000	5 600	3	* 6315
	190	45		7.480	1.772	153	114	4.15	8 000	5 000	6.8	6415
	80	100		10	3.150	3.937	0.394	13	15	0.64	13 000	8 000
110		16	4.331	0.630		25.1	20.4	1.02	12 000	7 500	0.4	61916
125		14	4.921	0.551		35.1	31.5	1.32	11 000	7 000	0.6	* 16016
125		22	4.921	0.866		49.4	40	1.66	11 000	7 000	0.85	* 6016
140		26	5.512	1.024		72.8	55	2.2	9 500	6 000	1.4	* 6216
170		39	6.693	1.535		130	86.5	3.25	8 500	5 300	3.6	* 6316
200		48	7.874	1.890		163	125	4.5	7 500	4 800	8	6416

* SKF Explorer bearing

Single row deep groove ball bearings

d 85 - 110 mm

d 3.346 - 4.331 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass kg	Designation
d	D	B	d	D	B	dynamic C	static C_0		Reference speed	Limiting speed		
mm			in			kN		r/min				
85	110	13	3.346	4.331	0.512	19.5	20.8	0.88	12 000	7 500	0.27	61817
	120	18		4.724	0.709	31.9	30	1.25	11 000	7 000	0.55	61917
	130	14		5.118	0.551	35.8	33.5	1.37	11 000	6 700	0.63	*16017
	130	22		5.118	0.866	52	43	1.76	11 000	6 700	0.89	*6017
	150	28		5.906	1.102	87.1	64	2.5	9 000	5 600	1.8	*6217
	180	41		7.087	1.614	140	96.5	3.55	8 000	5 000	4.25	*6317
	210	52		8.268	2.047	174	137	4.75	7 000	4 500	9.5	6417
90	115	13	3.543	4.528	0.512	19.5	22	0.915	11 000	7 000	0.28	61818
	125	18		4.921	0.709	33.2	31.5	1.23	11 000	6 700	0.59	61918
	140	16		5.512	0.630	43.6	39	1.56	10 000	6 300	0.85	*16018
	140	24		5.512	0.945	60.5	50	1.96	10 000	6 300	1.15	*6018
	160	30		6.299	1.181	101	73.5	2.8	8 500	5 300	2.15	*6218
	190	43		7.480	1.693	151	108	3.8	7 500	4 800	4.9	*6318
	225	54		8.858	2.126	186	150	5	6 700	4 300	11.5	6418
95	120	13	3.740	4.724	0.512	19.9	22.8	0.93	11 000	6 700	0.3	61819
	130	18		5.118	0.709	33.8	33.5	1.43	10 000	6 300	0.61	61919
	145	16		5.709	0.630	44.8	41.5	1.63	9 500	6 000	0.89	*16019
	145	24		5.709	0.945	63.7	54	2.08	9 500	6 000	1.2	*6019
	170	32		6.693	1.260	114	81.5	3	8 000	5 000	2.6	*6219
	200	45		7.874	1.772	159	118	4.15	7 000	4 500	5.65	*6319
100	125	13	3.937	4.921	0.512	19.9	24	0.95	10 000	6 300	0.31	61820
	140	20		5.512	0.787	42.3	41	1.63	9 500	6 000	0.83	61920
	150	16		5.906	0.630	46.2	44	1.73	9 500	5 600	0.91	*16020
	150	24		5.906	0.945	63.7	54	2.04	9 500	5 600	1.25	*6020
	180	34		7.087	1.339	127	93	3.35	7 500	4 800	3.15	*6220
	215	47		8.465	1.850	174	140	4.75	6 700	4 300	7	6320
105	130	13	4.134	5.118	0.512	20.8	19.6	1	10 000	6 300	0.32	61821
	145	20		5.709	0.787	44.2	44	1.7	9 500	5 600	0.87	61921
	160	18		6.299	0.709	54	51	1.86	8 500	5 300	1.2	*16021
	160	26		6.299	1.024	76.1	65.5	2.4	8 500	5 300	1.6	*6021
	190	36		7.480	1.417	140	104	3.65	7 000	4 500	3.7	*6221
	225	49		8.858	1.929	182	153	5.1	6 300	4 000	8.25	6321
110	140	16	4.331	5.512	0.630	28.1	26	1.25	9 500	5 600	0.6	61822
	150	20		5.906	0.787	43.6	45	1.66	9 000	5 600	0.9	61922
	170	19		6.693	0.748	60.2	57	2.04	8 000	5 000	1.45	*16022
	170	28		6.693	1.102	85.2	73.5	2.4	8 000	5 000	1.95	*6022
	200	38		7.874	1.496	151	118	4	6 700	4 300	4.35	*6222
	240	50		9.449	1.969	203	180	5.7	6 000	3 800	9.55	6322

* SKF Explorer bearing

Single row deep groove ball bearings

d 120 - 180 mm
d 4.724 - 7.087 in



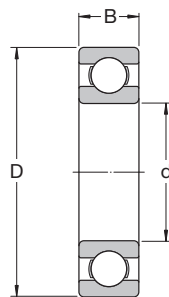
Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass kg	Designation
d	D	B	d	D	B	dynamic C	static C_0		Reference speed	Limiting speed		
			in			kN		kN	r/min			
120	150	16	4.724	5.906	0.630	29.1	28	1.29	8 500	5 300	0.65	61824
	165	22		6.496	0.866	55.3	57	2.04	8 000	5 000	1.2	61924
	180	19		7.087	0.748	63.7	64	2.2	7 500	4 800	1.6	*16024
	180	28		7.087	1.102	88.4	80	2.75	7 500	4 800	2.05	*6024
	215	40		8.465	1.575	146	118	3.9	6 300	4 000	5.15	6224
	260	55		10.236	2.165	208	186	5.7	5 600	3 400	12.5	6324
130	165	18	5.118	6.496	0.709	37.7	43	1.6	8 000	4 800	0.93	61826
	180	24		7.087	0.945	65	67	2.28	7 500	4 500	1.85	61926
	200	22		7.874	0.866	83.2	81.5	2.7	7 000	4 300	2.35	*16026
	200	33		7.874	1.299	112	100	3.35	7 000	4 300	3.15	*6026
	230	40		9.055	1.575	156	132	4.15	5 600	3 600	5.8	6226
	280	58		11.024	2.283	229	216	6.3	5 000	3 200	17.5	6326 M
140	175	18	5.512	6.890	0.709	39	46.5	1.66	7 500	4 500	0.99	61828
	190	24		7.480	0.945	66.3	72	2.36	7 000	5 600	1.7	61928 MA
	210	22		8.268	0.866	80.6	86.5	2.8	6 700	4 000	2.5	16028
	210	33		8.268	1.299	111	108	3.45	6 700	4 000	3.35	6028
	250	42		9.843	1.654	165	150	4.55	5 300	3 400	7.45	6228
	300	62		11.811	2.441	251	245	7.1	4 800	4 300	22	6328 M
150	190	20	5.906	7.480	0.787	48.8	61	1.96	6 700	4 300	1.4	61830
	210	28		8.268	1.102	88.4	93	2.9	6 300	5 300	3.05	61930 MA
	225	24		8.858	0.945	92.2	98	3.05	6 000	3 800	3.15	16030
	225	35		8.858	1.378	125	125	3.9	6 000	3 800	4.8	6030
	270	45		10.630	1.772	174	166	4.9	5 000	3 200	9.4	6230
	320	65		12.598	2.559	276	285	7.8	4 300	4 000	26	6330 M
160	200	20	6.299	7.874	0.787	49.4	64	2	6 300	4 000	1.45	61832
	220	28		8.661	1.102	92.3	98	3.05	6 000	5 000	3.25	61932 MA
	240	25		9.449	0.984	99.5	108	3.25	5 600	3 600	3.7	16032
	240	38		9.449	1.496	143	143	4.3	5 600	3 600	5.9	6032
	290	48		11.417	1.890	186	186	5.3	4 500	3 000	14.5	6232
	340	68		13.386	2.677	276	285	7.65	4 000	3 800	29	6332 M
170	215	22	6.693	8.465	0.866	61.8	78	2.4	6 000	3 600	1.9	61834
	230	28		9.055	1.102	93.6	106	3.15	5 600	4 800	3.4	61934 MA
	260	28		10.236	1.102	119	129	3.75	5 300	3 200	5	16034
	260	42		10.236	1.654	168	173	5	5 300	4 300	7.9	6034 M
	310	52		12.205	2.047	212	224	6.1	4 300	3 800	17.5	6234 M
	360	72		14.173	2.835	312	340	8.8	3 800	3 400	34.5	6334 M
180	225	22	7.087	8.858	0.866	62.4	81.5	2.45	5 600	3 400	2	61836
	250	33		9.843	1.299	119	134	3.9	5 300	4 300	5.05	61936 MA
	280	31		11.024	1.220	138	146	4.15	4 800	4 000	6.6	16036
	280	46		11.024	1.811	190	200	5.6	4 800	4 000	10.5	6036 M
	320	52		12.598	2.047	229	240	6.4	4 000	3 600	18.5	6236 M
	380	75		14.961	2.953	351	405	10.4	3 600	3 200	42.5	6336 M

* SKF Explorer bearing

Single row deep groove ball bearings

d 190 - 320 mm

d 7.480 - 12.598 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass kg	Designation
d	D	B	d	D	B	dynamic C	static C_0		Reference speed	Limiting speed		
mm			in			kN		kN	r/min			—
190	240	24	7.480	9.449	0.945	76.1	98	2.8	5 300	3 200	2.6	61838
	260	33		10.236	1.299	117	134	3.8	5 000	4 300	5.25	61938 MA
	290	31		11.417	1.220	148	166	4.55	4 800	3 000	7.9	16038
	290	46		11.417	1.811	195	216	5.85	4 800	3 800	11	6038 M
	340	55		13.386	2.165	255	280	7.35	3 800	3 400	23	6238 M
	400	78		15.748	3.071	371	430	10.8	3 400	3 000	49	6338 M
200	250	24	7.874	9.843	0.945	76.1	102	2.9	5 000	3 200	2.7	61840
	280	38		11.024	1.496	148	166	4.55	4 800	3 800	7.4	61940 MA
	310	34		12.205	1.339	168	190	5.1	4 300	2 800	8.85	16040
	310	51		12.205	2.008	216	245	6.4	4 300	3 600	14	6040 M
	360	58		14.173	2.283	270	310	7.8	3 600	3 200	28	6240 M
220	270	24	8.661	10.630	0.945	78	110	3	4 500	2 800	3	61844
	300	38		11.811	1.496	151	180	4.75	4 300	3 600	8	61944 MA
	340	37		13.386	1.457	174	204	5.2	4 000	2 400	11.5	16044
	340	56		13.386	2.205	247	290	7.35	4 000	3 200	18.5	6044 M
	400	65		15.748	2.559	296	365	8.8	3 200	3 000	37	6244 M
	460	88		18.110	3.465	410	520	12	3 000	2 600	72.5	6344 M
240	300	28	9.449	11.811	1.102	108	150	3.8	4 000	2 600	4.5	61848
	320	38		12.598	1.496	159	200	5.1	4 000	3 200	8.6	61948 MA
	360	37		14.173	1.457	178	220	5.3	3 600	3 000	14.5	16048 MA
	360	56		14.173	2.205	255	315	7.8	3 600	3 000	19.5	6048 M
	440	72		17.323	2.835	358	465	10.8	3 000	2 600	51	6248 M
	500	95		19.685	3.740	442	585	12.9	2 600	2 400	92.5	6348 M
260	320	28	10.236	12.598	1.102	111	163	4	3 800	2 400	4.8	61852
	360	46		14.173	1.811	212	270	6.55	3 600	3 000	14.5	61952 MA
	400	44		15.748	1.732	238	310	7.2	3 200	2 800	21.5	16052 MA
	400	65		15.748	2.559	291	375	8.8	3 200	2 800	29.5	6052 M
	480	80		18.898	3.150	390	530	11.8	2 600	2 400	65.5	6252 M
280	350	33	11.024	13.780	1.299	138	200	4.75	3 400	2 200	7.4	61856
	380	46		14.961	1.811	216	285	6.7	3 200	2 800	15	61956 MA
	420	44		16.535	1.732	242	335	7.5	3 000	2 600	23	16056 MA
	420	65		16.535	2.559	302	405	9.3	3 000	2 600	31	6056 M
	500	80		19.685	3.150	423	600	12.9	2 600	2 200	71	6256 M
300	380	38	11.811	14.961	1.496	172	245	5.6	3 200	2 600	10.5	61860 MA
	420	56		16.535	2.205	270	375	8.3	3 000	2 400	24.5	61960 MA
	460	50		18.110	1.969	286	405	8.8	2 800	2 400	32	16060 MA
	460	74		18.110	2.913	358	500	10.8	2 800	2 400	44	6060 M
	540	85		21.260	3.346	462	670	13.7	2 400	2 000	88.5	6260 M
320	400	38	12.598	15.748	1.496	172	255	5.7	3 000	2 400	11	61864 MA
	440	56		17.323	2.205	276	400	8.65	2 800	2 400	25.5	61964 MA
	480	50		18.898	1.969	281	405	8.65	2 600	2 200	34	16064 MA
	480	74		18.898	2.913	371	540	11.4	2 600	2 200	46	6064 M

Single row deep groove ball bearings

d 340 - 600 mm

d 13.386 - 23.622 in

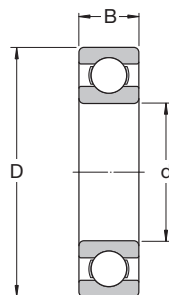


Principal dimensions						Basic load ratings		Fatigue load limit	Speed ratings		Mass	Designation
d	D	B	d	D	B	dynamic	static	P _u	Reference speed	Limiting speed		
mm			in			kN		kN	r/min		kg	–
340	420	38	13.386	16.535	1.496	178	275	6	2 800	2 400	11.5	61868 MA
	460	56		18.110	2.205	281	425	9	2 600	2 200	26.5	61968 MA
	520	57		20.472	2.244	345	520	10.6	2 400	2 000	45	16068 MA
	520	82		20.472	3.228	423	640	13.2	2 400	2 000	62	6068 M
360	440	38	14.173	17.323	1.496	182	285	6.1	2 600	2 200	12	61872 MA
	480	56		18.898	2.205	291	450	9.15	2 600	2 000	28	61972 MA
	540	57		21.260	2.244	351	550	11	2 400	1 900	49	16072 MA
	540	82		21.260	3.228	462	735	15	2 400	1 900	64.5	6072 M
380	480	46	14.961	18.898	1.811	242	390	8	2 400	2 000	20	61876 MA
	520	65		20.472	2.559	338	540	10.8	2 400	1 900	40	61976 MA
	560	57		22.047	2.244	377	620	12.2	2 200	1 800	51	16076 MA
	560	82		22.047	3.228	462	750	14.6	2 200	1 800	67.5	6076 M
400	500	46	15.748	19.685	1.811	247	405	8.15	2 400	1 900	20.5	61880 MA
	540	65		21.260	2.559	345	570	11.2	2 200	1 800	41.5	61980 MA
	600	90		23.622	3.543	520	865	16.3	2 000	1 700	87.5	6080 M
420	520	46	16.535	20.472	1.811	251	425	8.3	2 200	1 800	21.5	61884 MA
	560	65		22.047	2.559	351	600	11.4	2 200	1 800	43	61984 MA
	620	90		24.409	3.543	507	880	16.3	2 000	1 600	91.5	6084 M
440	540	46	17.323	21.260	1.811	255	440	8.5	2 200	1 800	22.5	61888 MA
	600	74		23.622	2.913	410	720	13.2	2 000	1 600	60.5	61988 MA
	650	94		25.591	3.701	553	965	17.6	1 900	1 500	105	6088 M
460	580	56	18.110	22.835	2.205	319	570	10.6	2 000	1 600	35	61892 MA
	620	72		24.409	2.835	423	750	13.7	1 900	1 600	62.5	61992 MA
	680	100		26.772	3.937	582	1 060	19	1 800	1 500	120	6092 MB
480	600	56	18.898	23.622	2.205	325	600	10.8	1 900	1 600	36.5	61896 MA
	650	78		25.591	3.071	449	815	14.6	1 800	1 500	74	61996 MA
	700	100		27.559	3.937	618	1 140	20	1 700	1 400	125	6096 MB
500	620	56	19.685	24.409	2.205	332	620	11.2	1 800	1 500	40.5	618/500 MA
	670	78		26.378	3.071	462	865	15	1 700	1 400	77	619/500 MA
	720	100		28.346	3.937	605	1 140	19.6	1 600	1 300	135	60/500 N1MAS
530	650	56	20.866	25.591	2.205	332	655	11.2	1 700	1 400	39.5	618/530 MA
	710	82		27.953	3.228	488	930	15.6	1 600	1 300	90.5	619/530 MA
	780	112		30.709	4.409	650	1 270	20.8	1 500	1 200	185	60/530 N1MAS
560	680	56	22.047	26.772	2.205	345	695	11.8	1 600	1 300	42	618/560 MA
	750	85		29.528	3.346	494	980	16.3	1 500	1 200	105	619/560 MA
	820	115		32.283	4.528	663	1 470	22	1 400	1 200	210	60/560 N1MAS
600	730	60	23.622	28.740	2.362	364	765	12.5	1 500	1 200	52	618/600 MA
	800	90		31.496	3.543	585	1 220	19.6	1 400	1 100	125	619/600 MA

Single row deep groove ball bearings

d 630 - 1500 mm

d 24.803 - 59.055 in



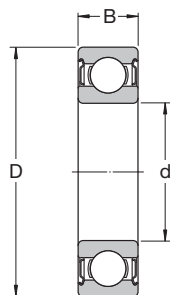
Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass kg	Designation
d	D	B	d	D	B	dynamic C	static C_0		Reference speed	Limiting speed		
mm			in			kN		kN	r/min			–
630	780	69	24.803	30.709	2.717	442	965	15.3	1 400	1 100	73	618/630 MA
	850	100		33.465	3.937	624	1 340	21.2	1 300	1 100	160	619/630 N1MA
	920	128		36.220	5.039	819	1 760	27	1 200	1 000	285	60/630 N1MBS
670	820	69	26.378	32.283	2.717	442	1 000	15.6	1 300	1 100	83.5	618/670 MA
	900	103		35.433	4.055	676	1 500	22.4	1 200	1 000	185	619/670 MA
	980	136		38.583	5.354	904	2 040	30	1 100	900	345	60/670 N1MAS
710	870	74	27.953	34.252	2.913	475	1 100	16.6	1 200	1 000	93.5	618/710 MA
	950	106		37.402	4.173	663	1 500	22	1 100	900	220	619/710 MA
	1 030	140		40.551	5.512	956	2 200	31.5	1 000	850	375	60/710 MA
750	920	78	29.528	36.220	3.071	527	1 250	18.3	1 100	900	110	618/750 MA
	1 000	112		39.370	4.409	761	1 800	25.5	1 000	850	255	619/750 MA
800	980	82	31.496	38.583	3.228	559	1 370	19.3	1 000	850	130	618/800 MA
	1 060	115		41.732	4.528	832	2 040	28.5	950	800	275	619/800 MA
	1 150	155		45.276	6.102	1 010	2 550	34.5	900	750	535	60/800 N1MAS
850	1 030	82	33.465	40.551	3.228	559	1 430	19.6	950	750	140	618/850 MA
900	1 090	85	35.433	42.913	3.346	618	1 600	21.6	850	700	160	618/900 MA
1 000	1 220	100	39.370	48.031	3.937	637	1 800	22.8	750	600	245	618/1000 MA
1 060	1 280	100	41.732	50.394	3.937	728	2 120	26.5	670	560	260	618/1060 MA
1 120	1 360	106	44.094	53.543	4.173	741	2 200	26.5	630	530	315	618/1120 MA
1 180	1 420	106	46.457	55.905	4.173	761	2 360	27.5	560	480	330	618/1180 MB
1 500	1 820	140	59.055	71.653	5.512	1 210	4 400	46.5	380	240	690	618/1500 TN



Sealed single row deep groove ball bearings

d 3 - 7 mm

d 0.118 - 0.276 in



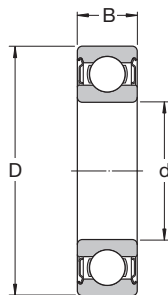
Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass kg	Designations	
d	D	B	d	D	B	dynamic C	static C_0		Reference speed	Limiting speed		sealed both sides	sealed one side
mm			in			kN		kN	r/min		–		
3	10	4	0.118	0.394	0.157	0.54	0.18	0.007	130 000	60 000	0.0015	623-2Z	623-Z
	10	4		0.394	0.157	0.54	0.18	0.007	–	40 000	0.0015	623-2RS1	623-RS1
4	9	3.5	0.157	0.354	0.138	0.54	0.18	0.007	140 000	70 000	0.001	628/4-2Z	–
	9	4		0.354	0.157	0.54	0.18	0.007	140 000	70 000	0.0013	638/4-2Z	–
	11	4		0.433	0.157	0.72	0.23	0.01	130 000	63 000	0.0017	619/4-2Z	–
	12	4		0.472	0.157	0.81	0.28	0.012	120 000	60 000	0.0021	604-2Z	604-Z
	13	5		0.512	0.197	0.94	0.29	0.012	110 000	53 000	0.0031	624-2Z	624-Z
	16	5		0.630	0.197	1.11	0.38	0.016	95 000	48 000	0.0054	634-2Z	634-Z
	16	5		0.630	0.197	1.11	0.38	0.016	95 000	48 000	0.0054	634-2RZ	634-RZ
5	16	5	0.630	0.197	1.11	0.38	0.016	–	28 000	0.0054	634-2RS1	634-RS1	
	11	4	0.197	0.433	0.157	0.64	0.26	0.011	120 000	60 000	0.0014	628/5-2Z	–
	11	5		0.433	0.197	0.64	0.26	0.011	120 000	60 000	0.0016	638/5-2Z	–
	13	4		0.512	0.157	0.88	0.34	0.014	110 000	53 000	0.0025	619/5-2Z	–
	16	5		0.630	0.197	1.14	0.38	0.016	95 000	48 000	0.005	*625-2Z	*625-Z
	19	6		0.748	0.236	2.34	0.95	0.04	80 000	40 000	0.009	*635-2Z	*635-Z
	19	6		0.748	0.236	2.34	0.95	0.04	80 000	40 000	0.009	*635-2RZ	*635-RZ
19	6	0.748		0.236	2.34	0.95	0.04	–	24 000	0.009	*635-2RS1	*635-RS1	
6	13	5	0.236	0.512	0.197	0.88	0.35	0.015	110 000	53 000	0.0026	628/6-2Z	–
	15	5		0.591	0.197	1.24	0.48	0.02	100 000	50 000	0.0039	619/6-2Z	–
	19	6		0.748	0.236	2.34	0.95	0.04	80 000	40 000	0.0084	*626-2Z	*626-Z
	19	6		0.748	0.236	2.34	0.95	0.04	80 000	40 000	0.0084	*626-2RSL	*626-RSL
	19	6		0.748	0.236	2.34	0.95	0.04	–	24 000	0.0084	*626-2RSH	*626-RSH
	19	6		0.748	0.236	2.34	0.95	0.04	–	24 000	0.0084	*626-2RSH	*626-RSH
7	14	5	0.276	0.551	0.197	0.956	0.4	0.017	100 000	50 000	0.0031	628/7-2Z	–
	17	5		0.669	0.197	1.48	0.56	0.024	90 000	45 000	0.0049	619/7-2Z	–
	19	6	0.748	0.236	2.34	0.95	0.04	85 000	43 000	0.0075	*607-2Z	*607-Z	
	19	6	0.748	0.236	2.34	0.95	0.04	85 000	43 000	0.0075	*607-2RSL	*607-RSL	
	19	6	0.748	0.236	2.34	0.95	0.04	–	24 000	0.0075	*607-2RSH	*607-RSH	
	22	7	0.866	0.276	3.45	1.37	0.057	70 000	36 000	0.013	*627-2Z	*627-Z	
	22	7	0.866	0.276	3.45	1.37	0.057	70 000	36 000	0.012	*627-2RSL	*627-RSL	
	22	7	0.866	0.276	3.45	1.37	0.057	–	22 000	0.012	*627-2RSH	*627-RSH	

* SKF Explorer bearing

Sealed single row deep groove ball bearings

d 8 - 10 mm

d 0.315 - 0.394 in



Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass	Designations	
d	D	B	d	D	B	C	C ₀		Reference speed	Limiting speed		sealed both sides	sealed one side
mm			in			kN		kN	r/min		kg	–	
8	16	5	0.315	0.630	0.197	1.33	0.57	0.024	90 000	45 000	0.0036	628/8-2Z	–
	16	5		0.630	0.197	1.33	0.57	0.024	–	26 000	0.0036	628/8-2RS1	–
	16	6		0.630	0.236	1.33	0.57	0.024	90 000	45 000	0.0043	638/8-2Z	–
	19	6		0.748	0.236	1.9	0.74	0.031	80 000	40 000	0.0071	619/8-2Z	–
	19	6		0.748	0.236	1.9	0.74	0.031	–	24 000	0.0071	619/8-2RS1	–
	19	6		0.748	0.236	2.21	0.95	0.04	85 000	43 000	0.0072	607/8-2Z	607/8-Z
	22	7		0.866	0.276	3.45	1.37	0.057	75 000	38 000	0.012	*608-2Z	*608-Z
	22	7		0.866	0.276	3.45	1.37	0.057	75 000	38 000	0.012	*608-2RSL	*608-RSL
	22	7		0.866	0.276	3.45	1.37	0.057	–	22 000	0.012	*608-2RSH	*608-RSH
	22	11		0.866	0.433	3.45	1.37	0.057	–	22 000	0.016	630/8-2RS1	–
	24	8		0.945	0.315	3.9	1.66	0.071	63 000	32 000	0.017	*628-2Z	*628-Z
	24	8		0.945	0.315	3.9	1.66	0.071	63 000	32 000	0.017	*628-2RZ	*628-RZ
	24	8		0.945	0.315	3.9	1.66	0.071	–	19 000	0.017	*628-2RS1	*628-RS1
	28	9		1.102	0.354	4.62	1.96	0.083	60 000	30 000	0.03	638-2RZ	638-RZ
9	17	5	0.354	0.669	0.197	1.43	0.64	0.027	85 000	43 000	0.0043	628/9-2Z	628/9-Z
	17	5		0.669	0.197	1.43	0.64	0.027	–	24 000	0.0043	628/9-2RS1	–
	20	6		0.787	0.236	2.08	0.87	0.036	80 000	38 000	0.0076	619/9-2Z	–
	24	7		0.945	0.276	3.9	1.66	0.071	70 000	34 000	0.014	*609-2Z	*609-Z
	24	7		0.945	0.276	3.9	1.66	0.071	70 000	34 000	0.014	*609-2RSL	*609-RSL
	24	7		0.945	0.276	3.9	1.66	0.071	–	19 000	0.014	*609-2RSH	*609-RSH
	26	8		1.024	0.315	4.75	1.96	0.083	60 000	30 000	0.02	*629-2Z	*629-Z
	26	8		1.024	0.315	4.75	1.96	0.083	60 000	30 000	0.02	*629-2RSL	*629-RSL
	26	8		1.024	0.315	4.75	1.96	0.083	–	19 000	0.02	*629-2RSH	*629-RSH
	10	19	5	0.394	0.748	0.197	1.38	0.59	0.025	80 000	38 000	0.0055	61800-2Z
19		5	0.748		0.197	1.38	0.59	0.025	–	22 000	0.0055	61800-2RS1	–
22		6	0.866		0.236	2.08	0.85	0.036	75 000	36 000	0.01	61900-2Z	–
22		6		0.866	0.236	2.08	0.85	0.036	–	20 000	0.01	61900-2RS1	–
26		8		1.024	0.315	4.75	1.96	0.083	67 000	34 000	0.019	*6000-2Z	*6000-Z
26		8		1.024	0.315	4.75	1.96	0.083	67 000	34 000	0.019	*6000-2RSL	*6000-RSL
26		8		1.024	0.315	4.75	1.96	0.083	–	19 000	0.019	*6000-2RSH	*6000-RSH
26		12		1.024	0.472	4.62	1.96	0.083	–	19 000	0.025	63000-2RS1	–
28		8		1.102	0.315	4.62	1.96	0.083	63 000	32 000	0.022	16100-2Z	–
30		9		1.181	0.354	5.4	2.36	0.1	56 000	28 000	0.032	*6200-2Z	*6200-Z
30		9		1.181	0.354	5.4	2.36	0.1	56 000	28 000	0.032	*6200-2RSL	*6200-RSL
30		9		1.181	0.354	5.4	2.36	0.1	–	17 000	0.032	*6200-2RSH	*6200-RSH
30		14		1.181	0.551	5.07	2.36	0.1	–	17 000	0.04	62200-2RS1	–
35		11		1.378	0.433	8.52	3.4	0.143	50 000	26 000	0.053	*6300-2Z	*6300-Z
35		11		1.378	0.433	8.52	3.4	0.143	50 000	26 000	0.053	*6300-2RSL	*6300-RSL
35		11		1.378	0.433	8.52	3.4	0.143	–	15 000	0.053	*6300-2RSH	*6300-RSH
35		17		1.378	0.669	8.06	3.4	0.143	–	15 000	0.06	62300-2RS1	–

* SKF Explorer bearing

Sealed single row deep groove ball bearings

d 12 - 15 mm

d 0.472 - 0.591 in



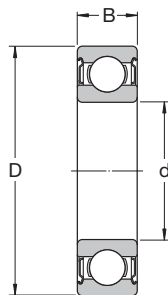
Principal dimensions						Basic load ratings		Fatigue	Speed ratings		Mass	Designations		
d	D	B	d	D	B	dynamic	static	load limit	Reference	Limiting		sealed	sealed	
mm			in			C	C ₀	P _u	speed	speed	kg	both	one	
						kN		kN	r/min			sides	side	
12	21	5	0.472	0.827	0.197	1.43	0.67	0.028	70 000	36 000	0.0063	61801-2Z	–	
	21	5		0.827	0.197	1.43	0.67	0.028	–	20 000	0.0063	61801-2RS1	–	
	24	6		0.945	0.236	2.25	0.98	0.043	67 000	32 000	0.011	61901-2Z	–	
	24	6		0.945	0.236	2.25	0.98	0.043	–	19 000	0.011	61901-2RS1	–	
	28	8		1.102	0.315	5.4	2.36	0.1	60 000	30 000	0.022	*6001-2Z	*6001-Z	
	28	8		1.102	0.315	5.4	2.36	0.1	60 000	30 000	0.022	*6001-2RSL	*6001-RSL	
	28	8		1.102	0.315	5.4	2.36	0.1	–	17 000	0.022	*6001-2RSH	*6001-RSH	
	28	12		1.102	0.472	5.07	2.36	0.1	–	17 000	0.029	63001-2RS1	–	
	30	8		1.181	0.315	5.07	2.36	0.1	56 000	28 000	0.023	16101-2Z	–	
	30	8		1.181	0.315	5.07	2.36	0.1	–	16 000	0.023	16101-2RS1	–	
		32		10	1.260	0.394	7.28	3.1	0.132	50 000	26 000	0.037	*6201-2Z	*6201-Z
		32		10	1.260	0.394	7.28	3.1	0.132	50 000	26 000	0.037	*6201-2RSL	*6201-RSL
		32		10	1.260	0.394	7.28	3.1	0.132	–	15 000	0.037	*6201-2RSH	*6201-RSH
		32		14	1.260	0.551	6.89	3.1	0.132	–	15 000	0.045	62201-2RS1	–
		37		12	1.457	0.472	10.1	4.15	0.176	45 000	22 000	0.06	*6301-2Z	*6301-Z
		37		12	1.457	0.472	10.1	4.15	0.176	45 000	22 000	0.06	*6301-2RSL	*6301-RSL
		37		12	1.457	0.472	10.1	4.15	0.176	–	14 000	0.06	*6301-2RSH	*6301-RSH
		37		17	1.457	0.669	9.75	4.15	0.176	–	14 000	0.07	62301-2RS1	–
15	24	5	0.591	0.945	0.197	1.56	0.8	0.034	60 000	30 000	0.0074	61802-2Z	–	
	24	5		0.945	0.197	1.56	0.8	0.034	–	17 000	0.0074	61802-2RS1	–	
	28	7		1.102	0.276	4.36	2.24	0.095	56 000	28 000	0.016	61902-2Z	–	
	28	7		1.102	0.276	4.36	2.24	0.095	56 000	28 000	0.016	61902-2RZ	–	
	28	7		1.102	0.276	4.36	2.24	0.095	–	16 000	0.016	61902-2RS1	–	
	32	8		1.260	0.315	5.85	2.85	0.12	50 000	26 000	0.025	*16002-2Z	*16002-Z	
	32	9		1.260	0.354	5.85	2.85	0.12	50 000	26 000	0.03	*6002-2Z	*6002-Z	
	32	9		1.260	0.354	5.85	2.85	0.12	50 000	26 000	0.03	*6002-2RSL	*6002-RSL	
	32	9		1.260	0.354	5.85	2.85	0.12	–	14 000	0.03	*6002-2RSH	*6002-RSH	
	32	13		1.260	0.512	5.59	2.85	0.12	–	14 000	0.039	63002-2RS1	–	
		35		11	1.378	0.433	8.06	3.75	0.16	43 000	22 000	0.045	*6202-2Z	*6202-Z
		35		11	1.378	0.433	8.06	3.75	0.16	43 000	22 000	0.045	*6202-2RSL	*6202-RSL
		35		11	1.378	0.433	8.06	3.75	0.16	–	13 000	0.045	*6202-2RSH	*6202-RSH
		35		14	1.378	0.551	7.8	3.75	0.16	–	13 000	0.054	62202-2RS1	–
		42		13	1.654	0.512	11.9	5.4	0.228	38 000	19 000	0.082	*6302-2Z	*6302-Z
		42		13	1.654	0.512	11.9	5.4	0.228	38 000	19 000	0.082	*6302-2RSL	*6302-RSL
		42		13	1.654	0.512	11.9	5.4	0.228	–	12 000	0.082	*6302-2RSH	*6302-RSH
		42		17	1.654	0.669	11.4	5.4	0.228	–	12 000	0.11	62302-2RS1	–

* SKF Explorer bearing

Sealed single row deep groove ball bearings

d 17 - 22 mm

d 0.669 - 0.866 in



Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass kg	Designations			
d	D	B	d	D	B	dynamic C	static C ₀		Reference speed	Limiting speed		sealed both sides	sealed one side		
mm			in			kN		kN		r/min	kg		-		
17	26	5	0.669	1.024	0.197	1.68	0.93	0.039	56 000	28 000	0.0082	61803-2Z	-		
	26	5		1.024	0.197	1.68	0.93	0.039	56 000	28 000	0.0082	61803-2RZ	-		
	26	5		1.024	0.197	1.68	0.93	0.039	-	16 000	0.0082	61803-2RS1	-		
	30	7		1.181	0.276	4.62	2.55	0.108	50 000	26 000	0.018	61903-2Z	-		
	30	7		1.181	0.276	4.62	2.55	0.108	50 000	26 000	0.018	61903-2RZ	-		
	30	7		1.181	0.276	4.62	2.55	0.108	-	14 000	0.018	61903-2RS1	-		
	35	8		1.378	0.315	6.37	3.25	0.137	45 000	22 000	0.032	*16003-2Z	-		
	35	10		1.378	0.394	6.37	3.25	0.137	45 000	22 000	0.039	*6003-2Z	*6003-Z		
	35	10		1.378	0.394	6.37	3.25	0.137	45 000	22 000	0.039	*6003-2RSL	*6003-RSL		
	35	10		1.378	0.394	6.37	3.25	0.137	-	13 000	0.039	*6003-2RSH	*6003-RSH		
	35	14		1.378	0.551	6.05	3.25	0.137	-	13 000	0.052	63003-2RS1	-		
	40	12		1.575	0.472	9.95	4.75	0.2	38 000	19 000	0.065	*6203-Z	*6203-Z		
	40	12		1.575	0.472	9.95	4.75	0.2	38 000	19 000	0.065	*6203-2RSL	*6203-RSL		
	40	12		1.575	0.472	9.95	4.75	0.2	-	12 000	0.065	*6203-2RSH	*6203-RSH		
	40	16		1.575	0.630	9.56	4.75	0.2	-	12 000	0.083	62203-2RS1	-		
	47	14		1.850	0.551	14.3	6.55	0.275	34 000	17 000	0.12	*6303-2Z	*6303-Z		
	47	14		1.850	0.551	14.3	6.55	0.275	34 000	17 000	0.12	*6303-2RSL	*6303-RSL		
	47	14		1.850	0.551	14.3	6.55	0.275	-	11 000	0.12	*6303-2RSH	*6303-RSH		
47	19	1.850	0.748	13.5	6.55	0.275	-	11 000	0.15	62303-2RS1	-				
20	32	7	0.787	1.260	0.276	4.03	2.32	0.104	45 000	22 000	0.018	61804-2RZ	-		
	32	7		1.260	0.276	4.03	2.32	0.104	-	13 000	0.018	61804-2RS1	-		
	37	9		1.457	0.354	6.37	3.65	0.156	43 000	20 000	0.038	61904-2RZ	-		
	37	9		1.457	0.354	6.37	3.65	0.156	-	12 000	0.038	61904-2RS1	-		
	42	12		1.654	0.472	9.95	5	0.212	38 000	19 000	0.069	*6004-2Z	*6004-Z		
	42	12		1.654	0.472	9.95	5	0.212	38 000	19 000	0.069	*6004-2RSL	*6004-RSL		
	42	12		1.654	0.472	9.95	5	0.212	-	11 000	0.069	*6004-2RSH	*6004-RSH		
	42	16		1.654	0.630	9.36	5	0.212	-	11 000	0.086	63004-2RS1	-		
	47	14		1.850	0.551	13.5	6.55	0.28	32 000	17 000	0.11	*6204-2Z	*6204-Z		
	47	14		1.850	0.551	13.5	6.55	0.28	32 000	17 000	0.11	*6204-2RSL	*6204-RSL		
	47	14		1.850	0.551	13.5	6.55	0.28	-	10 000	0.11	*6204-2RSH	*6204-RSH		
	47	18		1.850	0.709	12.7	6.55	0.28	-	10 000	0.13	62204-2RS1	-		
	52	15		2.047	0.591	16.8	7.8	0.335	30 000	15 000	0.14	*6304-2Z	*6304-Z		
	52	15		2.047	0.591	16.8	7.8	0.335	30 000	15 000	0.14	*6304-2RSL	*6304-RSL		
	52	15		2.047	0.591	16.8	7.8	0.335	-	9 500	0.14	*6304-2RSH	*6304-RSH		
	52	21		2.047	0.827	15.9	7.8	0.335	-	9 500	0.2	62304-2RS1	-		
	22	50		14	0.866	1.969	0.551	14	7.65	0.325	-	9 000	0.12	62/22-2RS1	-

* SKF Explorer bearing

Sealed single row deep groove ball bearings

d 25 - 30 mm

d 0.984 - 1.181 in



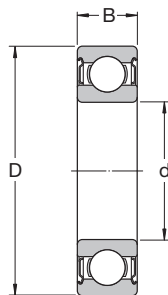
Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass kg	Designations	
d	D	B	d	D	B	dynamic C	static C ₀		Reference speed	Limiting speed		sealed both sides	sealed one side
mm			in			kN		kN	r/min		kg	–	
25	37	7	0.984	1.457	0.276	4.36	2.6	0.125	38 000	19 000	0.022	61805-2RZ	–
	37	7		1.457	0.276	4.36	2.6	0.125	–	11 000	0.022	61805-2RS1	–
	42	9		1.654	0.354	7.02	4.3	0.193	36 000	18 000	0.045	61905-2RZ	–
	42	9	1.654	0.354	7.02	4.3	0.193	–	10 000	0.045	61905-2RS1	–	
	47	12	1.850	0.472	11.9	6.55	0.275	32 000	16 000	0.08	*6005-2Z	*6005-Z	
	47	12	1.850	0.472	11.9	6.55	0.275	32 000	16 000	0.08	*6005-2RSL	*6005-RSL	
	47	12	1.850	0.472	11.9	6.55	0.275	–	9 500	0.08	*6005-2RSH	*6005-RSH	
	47	16	1.850	0.630	11.2	6.55	0.275	–	9 500	0.1	63005-2RS1	–	
	52	15	2.047	0.591	14.8	7.8	0.335	28 000	14 000	0.13	*6205-2Z	*6205-Z	
	52	15	2.047	0.591	14.8	7.8	0.335	28 000	14 000	0.13	*6205-2RSL	*6205-RSL	
	52	15	2.047	0.591	14.8	7.8	0.335	–	8 500	0.13	*6205-2RSH	*6205-RSH	
	52	18	2.047	0.709	14	7.8	0.335	–	8 500	0.15	62205-2RS1	–	
	62	17	2.441	0.669	23.4	11.6	0.49	24 000	13 000	0.23	*6305-2Z	*6305-Z	
	62	17	2.441	0.669	23.4	11.6	0.49	24 000	13 000	0.23	*6305-2RZ	*6305-RZ	
	62	17	2.441	0.669	23.4	11.6	0.49	–	7 500	0.23	*6305-2RS1	*6305-RS1	
	62	24	2.441	0.945	22.5	11.6	0.49	–	7 500	0.32	62305-2RS1	–	
30	42	7	1.181	1.654	0.276	4.49	2.9	0.146	32 000	16 000	0.027	61806-2RZ	–
	42	7		1.654	0.276	4.49	2.9	0.146	–	9 500	0.027	61806-2RS1	–
	47	9		1.850	0.354	7.28	4.55	0.212	30 000	15 000	0.051	61906-2RZ	–
	47	9		1.850	0.354	7.28	4.55	0.212	–	8 500	0.051	61906-2RS1	–
	55	13	2.165	0.512	13.8	8.3	0.355	28 000	14 000	0.12	*6006-2Z	*6006-Z	
	55	13	2.165	0.512	13.8	8.3	0.355	28 000	14 000	0.12	*6006-2RZ	*6006-RZ	
	55	13	2.165	0.512	13.8	8.3	0.355	–	8 000	0.12	*6006-2RS1	*6006-RS1	
	55	19	2.165	0.748	13.3	8.3	0.355	–	8 000	0.16	63006-2RS1	–	
	62	16	2.441	0.630	20.3	11.2	0.475	24 000	12 000	0.2	*6206-2Z	*6206-Z	
	62	16	2.441	0.630	20.3	11.2	0.475	24 000	12 000	0.2	*6206-2RZ	*6206-RZ	
	62	16	2.441	0.630	20.3	11.2	0.475	–	7 500	0.2	*6206-2RS1	*6206-RS1	
	62	20	2.441	0.787	19.5	11.2	0.475	–	7 500	0.24	62206-2RS1	–	
	72	19	2.835	0.748	29.6	16	0.67	20 000	11 000	0.35	*6306-2Z	*6306-Z	
	72	19	2.835	0.748	29.6	16	0.67	20 000	11 000	0.35	*6306-2RZ	*6306-RZ	
	72	19	2.835	0.748	29.6	16	0.67	–	6 300	0.35	*6306-2RS1	*6306-RS1	
	72	27	2.835	1.063	28.1	16	0.67	–	6 300	0.48	62306-2RS1	–	

* SKF Explorer bearing

Sealed single row deep groove ball bearings

d 35 - 40 mm

d 1.378 - 1.575 in



Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass kg	Designations		
d	D	B	d	D	B	dynamic C	static C ₀		Reference speed	Limiting speed		sealed both sides	sealed one side	
mm			in			kN		kN		r/min	kg		—	
35	47	7	1.378	1.850	0.276	4.75	3.2	0.166	28 000	14 000	0.03	61807-2RZ	—	
	47	7		1.850	0.276	4.75	3.2	0.166	—	8 000	0.03	61807-2RS1	—	
	55	10		2.165	0.394	9.56	6.8	0.29	26 000	13 000	0.08	61907-2RZ	—	
	55	10	2.165	0.394	9.56	6.8	0.29	—	7 500	0.08	61907-2RS1	—		
	62	14		2.441	0.551	16.8	10.2	0.44	24 000	12 000	0.16	*6007-2Z	*6007-Z	
	62	14		2.441	0.551	16.8	10.2	0.44	24 000	12 000	0.16	*6007-2RZ	*6007-RZ	
	62	14		2.441	0.551	16.8	10.2	0.44	—	7 000	0.16	*6007-2RS1	*6007-RS1	
	62	20		2.441	0.787	15.9	10.2	0.44	—	7 000	0.21	63007-2RS1	—	
	72	17		2.835	0.669	27	15.3	0.655	20 000	10 000	0.29	*6207-2Z	*6207-Z	
	72	17		2.835	0.669	27	15.3	0.655	—	6 300	0.29	*6207-2RS1	*6207-RS1	
	72	23		2.835	0.906	25.5	15.3	0.655	—	6 300	0.37	62207-2RS1	—	
	80	21		3.150	0.827	35.1	19	0.815	19 000	9 500	0.46	*6307-2Z	*6307-Z	
	80	21		3.150	0.827	35.1	19	0.815	—	6 000	0.46	*6307-2RS1	*6307-RS1	
	80	31		3.150	1.220	33.2	19	0.815	—	6 000	0.66	62307-2RS1	—	
40	52	7	1.575	2.047	0.276	4.94	3.45	0.186	26 000	13 000	0.034	61808-2RZ	—	
	52	7		2.047	0.276	4.94	3.45	0.186	—	7 500	0.034	61808-2RS1	—	
	62	12		2.441	0.472	13.8	10	0.425	24 000	12 000	0.12	61908-2RZ	—	
	62	12	2.441	0.472	13.8	10	0.425	—	6 700	0.12	61908-2RS1	—		
	68	15		2.677	0.591	17.8	11.6	0.49	22 000	11 000	0.19	*6008-2Z	*6008-Z	
	68	15		2.677	0.591	17.8	11.6	0.49	22 000	11 000	0.19	*6008-2RZ	*6008-RZ	
	68	15		2.677	0.591	17.8	11.6	0.49	—	6 300	0.19	*6008-2RS1	*6008-RS1	
	68	21		2.677	0.827	16.8	11.6	0.49	—	6 300	0.26	63008-2RS1	—	
	80	18		3.150	0.709	32.5	19	0.8	18 000	9 000	0.37	*6208-2Z	*6208-Z	
	80	18		3.150	0.709	32.5	19	0.8	18 000	9 000	0.37	*6208-2RZ	*6208-RZ	
	80	18		3.150	0.709	32.5	19	0.8	—	5 600	0.37	*6208-2RS1	*6208-RS1	
	80	23		3.150	0.906	30.7	19	0.8	—	5 600	0.44	62208-2RS1	—	
	90	23		3.543	0.906	42.3	24	1.02	17 000	8 500	0.63	*6308-2Z	*6308-Z	
	90	23		3.543	0.906	42.3	24	1.02	17 000	8 500	0.63	*6308-2RZ	*6308-RZ	
	90	23		3.543	0.906	42.3	24	1.02	—	5 000	0.63	*6308-2RS1	*6308-RS1	
	90	33		3.543	1.299	41	24	1.02	—	5 000	0.89	62308-2RS1	—	

* SKF Explorer bearing



Sealed single row deep groove ball bearings

d 45 - 50 mm

d 1.772 - 1.969 in

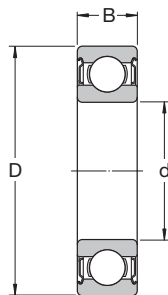
Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass kg	Designations		
d	D	B	d	D	B	dynamic C	static C ₀		Reference speed	Limiting speed		sealed both sides	sealed one side	
mm			in			kN		kN	r/min		kg	–		
45	58	7	1.772	2.283	0.276	6.63	6.1	0.26	22 000	11 000	0.04	61809-2RZ	–	
	58	7		2.283	0.276	6.63	6.1	0.26	–	6 700	0.04	61809-2RS1	–	
	68	12		2.677	0.472	14	10.8	0.465	20 000	10 000	0.14	61909-2RZ	–	
	68	12		2.677	0.472	14	10.8	0.465	–	6 000	0.14	61909-2RS1	–	
		75	16		2.953	0.630	22.1	14.6	0.64	20 000	10 000	0.25	*6009-2Z	*6009-Z
		75	16		2.953	0.630	22.1	14.6	0.64	–	5 600	0.25	*6009-2RS1	*6009-RS1
		75	23		2.953	0.906	20.8	14.6	0.64	–	5 600	0.34	63009-2RS1	–
		85	19		3.346	0.748	35.1	21.6	0.915	17 000	8 500	0.41	*6209-2Z	*6209-Z
		85	19		3.346	0.748	35.1	21.6	0.915	–	5 000	0.41	*6209-2RS1	*6209-RS1
		85	23		3.346	0.906	33.2	21.6	0.915	–	5 000	0.48	62209-2RS1	–
		100	25		3.937	0.984	55.3	31.5	1.34	15 000	7 500	0.83	*6309-2Z	*6309-Z
		100	25		3.937	0.984	55.3	31.5	1.34	–	4 500	0.83	*6309-2RS1	*6309-RS1
		100	36		3.937	1.417	52.7	31.5	1.34	–	4 500	1.15	62309-2RS1	–
	50	65	7	1.969	2.559	0.276	6.76	6.8	0.285	20 000	10 000	0.052	61810-2RZ	–
65		7	2.559		0.276	6.76	6.8	0.285	–	6 000	0.052	61810-2RS1	–	
72		12	2.835		0.472	14.6	11.8	0.5	19 000	9 500	0.14	61910-2RZ	–	
72		12	2.835		0.472	14.6	11.8	0.5	–	5 600	0.14	61910-2RS1	–	
		80	16		3.150	0.630	22.9	16	0.71	18 000	9 000	0.26	*6010-2Z	*6010-Z
		80	16		3.150	0.630	22.9	16	0.71	18 000	9 000	0.26	*6010-2RZ	*6010-RZ
		80	16		3.150	0.630	22.9	16	0.71	–	5 000	0.26	*6010-2RS1	*6010-RS1
		80	23		3.150	0.906	21.6	16	0.71	–	5 000	0.37	63010-2RS1	–
		90	20		3.543	0.787	37.1	23.2	0.98	15 000	8 000	0.46	*6210-2Z	*6210-Z
		90	20		3.543	0.787	37.1	23.2	0.98	15 000	8 000	0.46	*6210-2RZ	*6210-RZ
		90	20		3.543	0.787	37.1	23.2	0.98	–	4 800	0.46	*6210-2RS1	*6210-RS1
		90	23		3.543	0.906	35.1	23.2	0.98	–	4 800	0.52	62210-2RS1	–
		110	27		4.331	1.063	65	38	1.6	13 000	6 700	1.05	*6310-2Z	*6310-Z
		110	27		4.331	1.063	65	38	1.6	–	4 300	1.05	*6310-2RS1	*6310-RS1
	110	40		4.331	1.575	61.8	38	1.6	–	4 300	1.55	62310-2RS1	–	

* SKF Explorer bearing

Sealed single row deep groove ball bearings

d 55 - 65 mm

d 2.165 - 2.559 in



Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass kg	Designations		
d	D	B	d	D	B	dynamic C	static C ₀		Reference speed	Limiting speed		sealed both sides	sealed one side	
mm			in			kN		kN	r/min	kg		—		
55	72	9	2.165	2.835	0.354	9.04	8.8	0.375	19 000	9 500	0.083	61811-2RZ	—	
	72	9		2.835	0.354	9.04	8.8	0.375	—	5 300	0.083	61811-2RS1	—	
	80	13		3.150	0.512	16.5	14	0.6	17 000	8 500	0.19	61911-2RZ	—	
	80	13		3.150	0.512	16.5	14	0.6	—	5 000	0.19	61911-2RS1	—	
	90	18		3.543	0.709	29.6	21.2	0.9	16 000	8 000	0.39	*6011-2Z	*6011-Z	
	90	18		3.543	0.709	29.6	21.2	0.9	—	4 500	0.39	*6011-2RS1	*6011-RS1	
	100	21		3.937	0.827	46.2	29	1.25	14 000	7 000	0.61	*6211-2Z	*6211-Z	
	100	21		3.937	0.827	46.2	29	1.25	—	4 300	0.61	*6211-2RS1	*6211-RS1	
	100	25		3.937	0.984	43.6	29	1.25	—	4 300	0.7	62211-2RS1	—	
	120	29		4.724	1.142	74.1	45	1.9	12 000	6 300	1.35	*6311-2Z	*6311-Z	
	120	29		4.724	1.142	74.1	45	1.9	—	3 800	1.35	*6311-2RS1	*6311-RS1	
	120	43		4.724	1.693	71.5	45	1.9	—	3 800	1.95	62311-2RS1	—	
	60	78	10	2.362	3.071	0.394	11.9	11.4	0.49	17 000	8 500	0.11	61812-2RZ	—
		78	10		3.071	0.394	11.9	11.4	0.49	—	4 800	0.11	61812-2RS1	—
85		13	3.346		0.512	16.5	14.3	0.6	16 000	8 000	0.2	61912-2RZ	—	
85		13	3.346		0.512	16.5	14.3	0.6	—	4 500	0.2	61912-2RS1	—	
95		18		3.740	0.709	30.7	23.2	0.98	15 000	7 500	0.42	*6012-2Z	*6012-Z	
95		18		3.740	0.709	30.7	23.2	0.98	15 000	7 500	0.42	*6012-2RZ	*6012-RZ	
95		18		3.740	0.709	30.7	23.2	0.98	—	4 300	0.42	*6012-2RS1	*6012-RS1	
110		22		4.331	0.866	55.3	36	1.53	13 000	6 300	0.78	*6212-2Z	*6212-Z	
110		22		4.331	0.866	55.3	36	1.53	—	4 000	0.78	*6212-2RS1	*6212-RS1	
110		28		4.331	1.102	52.7	36	1.53	—	4 000	0.97	62212-2RS1	—	
130		31		5.118	1.220	85.2	52	2.2	11 000	5 600	1.7	*6312-2Z	*6312-Z	
130		31		5.118	1.220	85.2	52	2.2	—	3 400	1.7	*6312-2RS1	*6312-RS1	
130		46		5.118	1.811	81.9	52	2.2	—	3 400	2.5	62312-2RS1	—	
65		85	10	2.559	3.346	0.394	12.4	12.7	0.54	16 000	8 000	0.13	61813-2RZ	—
	85	10	3.346		0.394	12.4	12.7	0.54	—	4 500	0.13	61813-2RS1	—	
	90	13	3.543		0.512	17.4	16	0.68	15 000	7 500	0.22	61913-2RZ	—	
	90	13	3.543		0.512	17.4	16	0.68	—	4 300	0.22	61913-2RS1	—	
	100	18		3.937	0.709	31.9	25	1.06	14 000	7 000	0.44	*6013-2Z	*6013-Z	
	100	18		3.937	0.709	31.9	25	1.06	—	4 000	0.44	*6013-2RS1	*6013-RS1	
	120	23		4.724	0.906	58.5	40.5	1.73	12 000	6 000	0.99	*6213-2Z	*6213-Z	
	120	23		4.724	0.906	58.5	40.5	1.73	—	3 600	0.99	*6213-2RS1	*6213-RS1	
	120	31		4.724	1.220	55.9	40.5	1.73	—	3 600	1.25	62213-2RS1	—	
	140	33		5.512	1.299	97.5	60	2.5	10 000	5 300	2.1	*6313-2Z	*6313-Z	
	140	33		5.512	1.299	97.5	60	2.5	—	3 200	2.1	*6313-2RS1	*6313-RS1	
	140	48		5.512	1.890	92.3	60	2.5	—	3 200	3	62313-2RS1	—	

* SKF Explorer bearing

Sealed single row deep groove ball bearings

d 70 - 80 mm

d 2.756 - 3.150 in



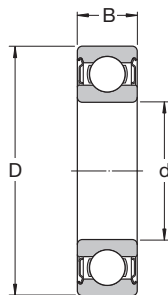
Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass kg	Designations		
d	D	B	d	D	B	dynamic C	static C ₀		Reference speed	Limiting speed		sealed both sides	sealed one side	
mm			in			kN		kN	r/min		kg	–		
70	90	10	2.756	3.543	0.394	12.4	13.2	0.56	15 000	7 500	0.14	61814-2RZ	–	
	90	10		3.543	0.394	12.4	13.2	0.56	–	4 300	0.14	61814-2RS1	–	
	100	16		3.937	0.630	23.8	21.2	0.9	14 000	7 000	0.35	61914-2RZ	–	
	100	16		3.937	0.630	23.8	21.2	0.9	–	4 000	0.35	61914-2RS1	–	
	110	20		4.331	0.787	39.7	31	1.32	13 000	6 300	0.6	*6014-2Z	*6014-Z	
	110	20		4.331	0.787	39.7	31	1.32	–	3 600	0.6	*6014-2RS1	*6014-RS1	
	125	24		4.921	0.945	63.7	45	1.9	11 000	5 600	1.1	*6214-2Z	*6214-Z	
	125	24		4.921	0.945	63.7	45	1.9	–	3 400	1.1	*6214-2RS1	*6214-RS1	
	125	31		4.921	1.220	60.5	45	1.9	–	3 400	1.3	62214-2RS1	–	
	150	35		5.906	1.378	111	68	2.75	9 500	5 000	2.5	*6314-2Z	*6314-Z	
	150	35		5.906	1.378	111	68	2.75	–	3 000	2.5	*6314-2RS1	*6314-RS1	
	150	51		5.906	2.008	104	68	2.75	–	3 000	3.55	62314-2RS1	–	
	75	95	10	2.953	3.740	0.394	12.7	14.3	0.61	14 000	7 000	0.15	61815-2RZ	–
		95	10		3.740	0.394	12.7	14.3	0.61	–	4 000	0.15	61815-2RS1	–
105		16		4.134	0.630	24.2	19.3	0.965	13 000	6 300	0.37	61915-2RZ	–	
105		16		4.134	0.630	24.2	19.3	0.965	–	3 600	0.37	61915-2RS1	–	
115		20		4.528	0.787	41.6	33.5	1.43	12 000	6 000	0.64	*6015-2Z	*6015-Z	
115		20		4.528	0.787	41.6	33.5	1.43	12 000	6 000	0.64	*6015-2RZ	*6015-RZ	
115		20		4.528	0.787	41.6	33.5	1.43	–	3 400	0.64	*6015-2RS1	*6015-RS1	
130		25		5.118	0.984	68.9	49	2.04	10 000	5 300	1.2	*6215-2Z	*6215-Z	
130		25		5.118	0.984	68.9	49	2.04	–	3 200	1.2	*6215-2RS1	*6215-RS1	
160		37		6.299	1.457	119	76.5	3	9 000	4 500	3	*6315-2Z	*6315-Z	
160	37		6.299	1.457	119	76.5	3	–	2 800	3	*6315-2RS1	*6315-RS1		
80	100	10	3.150	3.937	0.394	13	15	0.64	13 000	6 300	0.15	61816-2RZ	–	
	100	10		3.937	0.394	13	15	0.64	–	3 600	0.15	61816-2RS1	–	
	110	16		4.331	0.630	25.1	20.4	1.02	12 000	6 000	0.4	61916-2RZ	–	
	110	16		4.331	0.630	25.1	20.4	1.02	–	3 400	0.4	61916-2RS1	–	
	125	22		4.921	0.866	49.4	40	1.66	11 000	5 600	0.85	*6016-2Z	*6016-Z	
	125	22		4.921	0.866	49.4	40	1.66	–	3 200	0.85	*6016-2RS1	*6016-RS1	
	140	26		5.512	1.024	72.8	55	2.2	9 500	4 800	1.4	*6216-2Z	*6216-Z	
	140	26		5.512	1.024	72.8	55	2.2	–	3 000	1.4	*6216-2RS1	*6216-RS1	
	170	39		6.693	1.535	130	86.5	3.25	8 500	4 300	3.6	*6316-2Z	*6316-Z	
	170	39		6.693	1.535	130	86.5	3.25	–	2 600	3.6	*6316-2RS1	*6316-RS1	

* SKF Explorer bearing

Sealed single row deep groove ball bearings

d 85 - 100 mm

d 3.346 - 3.937 in



Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass kg	Designations		
d	D	B	d	D	B	dynamic C	static C ₀		Reference speed	Limiting speed		sealed both sides	sealed one side	
mm			in			kN		kN		r/min	kg		—	
85	110	13	3.346	4.331	0.512	19.5	20.8	0.88	12 000	6 000	0.27	61817-2RZ	—	
	110	13		4.331	0.512	19.5	20.8	0.88	—	3 400	0.27	61817-2RS1	—	
	130	22	5.118	0.866	52	43	1.76	11 000	5 300	0.89	*6017-2Z	*6017-Z		
	130	22	5.118	0.866	52	43	1.76	—	3 000	0.89	*6017-2RS1	*6017-RS1		
	150	28		5.906	1.102	87.1	64	2.5	9 000	4 500	1.8	*6217-2Z	*6217-Z	
	150	28		5.906	1.102	87.1	64	2.5	—	2 800	1.8	*6217-2RS1	*6217-RS1	
	180	41		7.087	1.614	140	96.5	3.55	8 000	4 000	4.25	*6317-2Z	*6317-Z	
	180	41		7.087	1.614	140	96.5	3.55	—	2 400	4.25	*6317-2RS1	*6317-RS1	
90	115	13	3.543	4.528	0.512	19.5	22	0.915	11 000	5 600	0.28	61818-2RZ	—	
	115	13		4.528	0.512	19.5	22	0.915	—	3 200	0.28	61818-2RS1	—	
	140	24	5.512	0.945	60.5	50	1.96	10 000	5 000	1.15	*6018-2Z	*6018-Z		
	140	24	5.512	0.945	60.5	50	1.96	—	2 800	1.15	*6018-2RS1	*6018-RS1		
	160	30		6.299	1.181	101	73.5	2.8	8 500	4 300	2.15	*6218-2Z	*6218-Z	
	160	30		6.299	1.181	101	73.5	2.8	—	2 600	2.15	*6218-2RS1	*6218-RS1	
	190	43		7.480	1.693	151	108	3.8	7 500	3 800	4.9	*6318-2Z	*6318-Z	
	190	43		7.480	1.693	151	108	3.8	—	2 400	4.9	*6318-2RS1	*6318-RS1	
95	120	13	3.740	4.724	0.512	19.9	22.8	0.93	11 000	5 300	0.3	61819-2RZ	—	
	120	13		4.724	0.512	19.9	22.8	0.93	—	3 000	0.3	61819-2RS1	—	
	130	18	5.118	0.709	33.8	33.5	1.43	—	3 000	0.61	61919-2RS1	—		
	145	24		5.709	0.945	63.7	54	2.08	9 500	4 800	1.2	*6019-2Z	*6019-Z	
	145	24		5.709	0.945	63.7	54	2.08	—	2 800	1.2	*6019-2RS1	*6019-RS1	
	170	32		6.693	1.260	114	81.5	3	8 000	4 000	2.6	*6219-2Z	*6219-Z	
	170	32		6.693	1.260	114	81.5	3	—	2 400	2.6	*6219-2RS1	*6219-RS1	
	200	45		7.874	1.772	159	118	4.15	7 000	3 600	5.65	*6319-2Z	*6319-Z	
200	45		7.874	1.772	159	118	4.15	—	2 200	5.65	*6319-2RS1	*6319-RS1		
100	125	13	3.937	4.921	0.512	19.9	24	0.95	10 000	5 300	0.31	61820-2RZ	—	
	125	13		4.921	0.512	19.9	24	0.95	—	3 000	0.31	61820-2RS1	—	
	150	24	5.906	0.945	63.7	54	2.04	9 500	4 500	1.25	*6020-2Z	*6020-Z		
	150	24	5.906	0.945	63.7	54	2.04	—	2 600	1.25	*6020-2RS1	*6020-RS1		
	180	34		7.087	1.339	127	93	3.35	7 500	3 800	3.15	*6220-2Z	*6220-Z	
	180	34		7.087	1.339	127	93	3.35	—	2 400	3.15	*6220-2RS1	*6220-RS1	
	215	47		8.465	1.850	174	140	4.75	6 700	3 400	7	6320-2Z	6320-Z	

* SKF Explorer bearing

Sealed single row deep groove ball bearings

d 105 - 160 mm

d 4.134 - 6.299 in



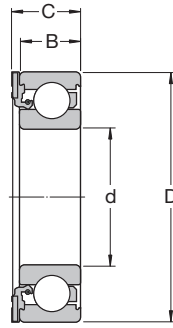
Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass kg	Designations	
d	D	B	d	D	B	dynamic C	static C ₀		Reference speed	Limiting speed		sealed both sides	sealed one side
mm			in			kN		kN	r/min		kg	–	
105	130	13	4.134	5.118	0.512	20.8	19.6	1	10 000	5 000	0.32	61821-2RZ	–
	130	13		5.118	0.512	20.8	19.6	1	–	2 800	0.32	61821-2RS1	–
	160	26	6.299	1.024	76.1	65.5	2.4	8 500	4 300	1.6	*6021-2Z	*6021-Z	
	160	26	6.299	1.024	76.1	65.5	2.4	–	2 400	1.6	*6021-2RS1	*6021-RS1	
	190	36		7.480	1.417	140	104	3.65	7 000	3 600	3.7	*6221-2Z	*6221-Z
	190	36		7.480	1.417	140	104	3.65	–	2 200	3.7	*6221-2RS1	*6221-RS1
	225	49		8.858	1.929	182	153	5.1	6 300	3 200	8.25	6321-2Z	6321-Z
110	140	16	4.331	5.512	0.630	28.1	26	1.25	9 500	4 500	0.6	61822-2RZ	–
	140	16		5.512	0.630	28.1	26	1.25	–	2 600	0.6	61822-2RS1	–
	170	28	6.693	1.102	85.2	73.5	2.4	8 000	4 000	1.95	*6022-2Z	*6022-Z	
	170	28	6.693	1.102	85.2	73.5	2.4	–	2 400	1.95	*6022-2RS1	*6022-RS1	
	200	38		7.874	1.496	151	118	4	6 700	3 400	4.35	*6222-2Z	*6222-Z
	240	50		9.449	1.969	203	180	5.7	6 000	3 000	9.55	6322-2ZTN9	6322-ZTN9
120	150	16	4.724	5.906	0.630	29.1	28	1.29	8 500	4 300	0.65	61824-2RZ	–
	150	16		5.906	0.630	29.1	28	1.29	–	2 400	0.65	61824-2RS1	–
	180	28	7.087	1.102	88.4	80	2.75	7 500	3 800	2.05	*6024-2Z	*6024-Z	
	180	28	7.087	1.102	88.4	80	2.75	–	2 200	2.05	*6024-2RS1	*6024-RS1	
	215	40	8.465	1.575	146	118	3.9	6 300	3 200	5.15	6224-2Z	6224-Z	
130	165	18	5.118	6.496	0.709	37.7	43	1.6	8 000	3 800	0.93	61826-2RZ	–
	165	18		6.496	0.709	37.7	43	1.6	–	2 200	0.93	61826-2RS1	–
	200	33	7.874	1.299	112	100	3.35	7 000	3 400	3.15	*6026-2Z	*6026-Z	
	200	33	7.874	1.299	112	100	3.35	–	2 000	3.15	*6026-2RS1	*6026-RS1	
	230	40	9.055	1.575	156	132	4.15	5 600	3 000	5.8	6226-2Z	6226-Z	
140	175	18	5.512	6.890	0.709	39	46.5	1.66	7 500	3 600	0.99	61828-2RZ	–
	175	18		6.890	0.709	39	46.5	1.66	–	2 000	0.99	61828-2RS1	–
	210	33	8.268	1.299	111	108	3.45	6 700	3 200	3.35	6028-2Z	6028-Z	
	210	33	8.268	1.299	111	108	3.45	–	1 800	3.35	6028-2RS1	6028-RS1	
150	225	35	5.906	8.858	1.378	125	125	3.9	6 000	3 000	4.8	6030-2Z	6030-Z
	225	35		8.858	1.378	125	125	3.9	–	1 700	4.8	6030-2RS1	6030-RS1
160	240	38	6.299	9.449	1.496	143	143	4.3	5 600	2 800	5.9	6032-2Z	6032-Z
	240	38		9.449	1.496	143	143	4.3	–	1 600	5.9	6032-2RS1	6032-RS1

* SKF Explorer bearing

ICOS™ oil sealed bearing units

d 12 - 30 mm

d 0.472 - 1.181 in

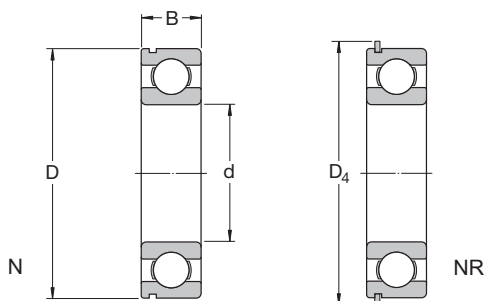


Principal dimensions								Basic load ratings		Fatigue load limit P_u	Limiting speed	Mass	Designation
d	D	B	C	d	D	B	C	dynamic	static				
mm				in				kN		kN	r/min	kg	—
12	32	10	12.6	0.472	1.260	0.394	0.496	7.28	3.1	0.132	14 000	0.041	* ICOS-D1B01-TN9
15	35	11	13.2	0.591	1.378	0.433	0.520	8.06	3.75	0.16	12 000	0.048	* ICOS-D1B02-TN9
17	40	12	14.2	0.669	1.575	0.472	0.559	9.95	4.75	0.2	11 000	0.071	* ICOS-D1B03-TN9
20	47	14	16.2	0.787	1.850	0.551	0.638	13.5	6.55	0.28	9 300	0.11	* ICOS-D1B04-TN9
25	52	15	17.2	0.984	2.047	0.591	0.677	14.8	7.8	0.335	7 700	0.14	* ICOS-D1B05-TN9
30	62	16	19.4	1.181	2.441	0.630	0.764	20.3	11.2	0.475	6 500	0.22	* ICOS-D1B06-TN9



Single row deep groove ball bearings with snap ring groove

d 10 - 55 mm
d 0.394 - 2.165 in



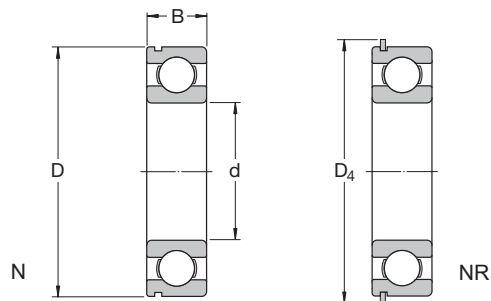
Principal dimensions				Basic load ratings						Fatigue load limit	Speed ratings		Mass	Designations		
d	D	B	D ₄	d	D	B	D ₄	C	C ₀	P _u	Reference speed	Limiting speed	kg	Bearing with snap ring groove	snap ring groove and snap ring	Snap ring
mm				in				kN		kN	r/min			-		
10	30	9	34.7	0.394	1.181	0.354	1.366	5.4	2.36	0.1	56 000	34 000	0.032	*6200 N	*6200 NR	SP 30
12	32	10	36.7	0.472	1.260	0.394	1.445	7.28	3.1	0.132	50 000	32 000	0.037	*6201 N	*6201 NR	SP 32
15	35	11	39.7	0.591	1.378	0.433	1.563	8.06	3.75	0.16	43 000	28 000	0.045	*6202 N	*6202 NR	SP 35
17	40	12	44.6	0.669	1.575	0.472	1.756	9.95	4.75	0.2	38 000	24 000	0.065	*6203 N	*6203 NR	SP 40
	47	14	52.7		1.850	0.551	2.075	14.3	6.55	0.275	34 000	22 000	0.12	*6303 N	*6303 NR	SP 47
20	42	12	46.3	0.787	1.654	0.472	1.823	9.5	5	0.212	38 000	24 000	0.069	*6004 N	*6004 NR	SP 42
	47	14	52.7		1.850	0.551	2.075	13.5	6.55	0.28	32 000	20 000	0.11	*6204 N	*6204 NR	SP 47
	52	15	57.9		2.047	0.591	2.280	16.8	7.8	0.335	30 000	19 000	0.14	*6304 N	*6304 NR	SP 52
25	47	12	52.7	0.984	1.850	0.472	2.075	11.9	6.55	0.275	32 000	20 000	0.08	*6005 N	*6005 NR	SP 47
	52	15	57.9		2.047	0.591	2.280	14.8	7.8	0.335	28 000	18 000	0.13	*6205 N	*6205 NR	SP 52
	62	17	67.7		2.441	0.669	2.665	23.4	11.6	0.49	24 000	16 000	0.23	*6305 N	*6305 NR	SP 62
30	55	13	60.7	1.181	2.165	0.512	2.390	13.8	8.3	0.355	28 000	17 000	0.12	*6006 N	*6006 NR	SP 55
	62	16	67.7		2.441	0.630	2.665	20.3	11.2	0.475	24 000	15 000	0.2	*6206 N	*6206 NR	SP 62
	72	19	78.6		2.835	0.748	3.094	29.6	16	0.67	20 000	13 000	0.35	*6306 N	*6306 NR	SP 72
35	62	14	67.7	1.378	2.441	0.551	2.665	16.8	10.2	0.44	24 000	15 000	0.16	*6007 N	*6007 NR	SP 62
	72	17	78.6		2.835	0.669	3.094	27	15.3	0.655	20 000	13 000	0.29	*6207 N	*6207 NR	SP 72
80	21	86.6			3.150	0.827	3.409	35.1	19	0.815	19 000	12 000	0.46	*6307 N	*6307 NR	SP 80
	100	25	106.5		3.937	0.984	4.193	55.3	31	1.29	16 000	10 000	0.95	6407 N	6407 NR	SP 100
40	68	15	74.6	1.575	2.677	0.591	2.937	17.8	11.6	0.49	22 000	14 000	0.19	*6008 N	*6008 NR	SP 68
	80	18	86.6		3.150	0.709	3.409	32.5	19	0.8	18 000	11 000	0.37	*6208 N	*6208 NR	SP 80
	90	23	96.5			3.543	0.906	3.799	42.3	24	1.02	17 000	11 000	0.63	*6308 N	*6308 NR
110	27	116.6			4.331	1.063	4.591	63.7	36.5	1.53	14 000	9 000	1.25	6408 N	6408 NR	SP 110
45	75	16	81.6	1.772	2.953	0.630	3.213	22.1	14.6	0.64	20 000	12 000	0.25	*6009 N	*6009 NR	SP 75
	85	19	91.6		3.346	0.748	3.606	35.1	21.6	0.915	17 000	11 000	0.41	*6209 N	*6209 NR	SP 85
100	25	106.5			3.937	0.984	4.193	55.3	31.5	1.34	15 000	9 500	0.83	*6309 N	*6309 NR	SP 100
	120	29	129.7		4.724	1.142	5.106	76.1	45	1.9	13 000	8 500	1.55	6409 N	6409 NR	SP 120
50	80	16	86.6	1.969	3.150	0.630	3.409	22.9	16	0.71	18 000	11 000	0.26	*6010 N	*6010 NR	SP 80
	90	20	96.5		3.543	0.787	3.799	37.1	23.2	0.98	15 000	10 000	0.46	*6210 N	*6210 NR	SP 90
	110	27	116.6			4.331	1.063	4.591	65	38	1.6	13 000	8 500	1.05	*6310 N	*6310 NR
130	31	139.7			5.118	1.220	5.500	87.1	52	2.2	12 000	7 500	1.9	6410 N	6410 NR	SP 130
55	90	18	96.5	2.165	3.543	0.709	3.799	29.6	21.2	0.9	16 000	10 000	0.39	*6011 N	*6011 NR	SP 90
	100	21	106.5		3.937	0.827	4.193	46.2	29	1.25	14 000	9 000	0.61	*6211 N	*6211 NR	SP 100
	120	29	129.7			4.724	1.142	5.106	74.1	45	1.9	12 000	8 000	1.35	*6311 N	*6311 NR
140	33	149.7			5.512	1.299	5.894	99.5	62	2.6	11 000	7 000	2.3	6411 N	6411 NR	SP 140

* SKF Explorer bearing
1) For snap ring dimensions see page 29

Single row deep groove ball bearings with snap ring groove

d 60 - 120 mm

d 2.362 - 4.724 in



Principal dimensions				Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass	Designations						
d	D	B	D_4	dynamic	static		Reference speed	Limiting speed		Bearing with snap ring groove	snap ring groove and snap ring	Snap ring				
mm			in	kN		kN	r/min	kg	-							
60	95	18	101.6	2.362	3.740	0.709	4.000	30.7	23.2	0.98	15 000	9 500	0.42	*6012 N	*6012 NR	SP 95
	110	22	116.6		4.331	0.866	4.591	55.3	36	1.53	13 000	8 000	0.78	*6212 N	*6212 NR	SP 110
	130	31	139.7		5.118	1.220	5.500	85.2	52	2.2	11 000	7 000	1.7	*6312 N	*6312 NR	SP 130
	150	35	159.7		5.906	1.378	6.287	108	69.5	2.9	10 000	6 300	2.75	*6412 N	*6412 NR	SP 150
65	100	18	106.5	2.559	3.937	0.709	4.193	31.9	25	1.06	14 000	9 000	0.44	*6013 N	*6013 NR	SP 100
	120	23	129.7		4.724	0.906	5.106	58.5	40.5	1.73	12 000	7 500	0.99	*6213 N	*6213 NR	SP 120
	140	33	149.7		5.512	1.299	5.894	97.5	60	2.5	10 000	6 700	2.1	*6313 N	*6313 NR	SP 140
	160	37	169.7		6.299	1.457	6.681	119	78	3.15	9 500	6 000	3.3	*6413 N	*6413 NR	SP 160
70	110	20	116.6	2.756	4.331	0.787	4.591	39.7	31	1.32	13 000	8 000	0.6	*6014 N	*6014 NR	SP 110
	125	24	134.7		4.921	0.945	5.303	63.7	45	1.9	11 000	7 000	1.05	*6214 N	*6214 NR	SP 125
	150	35	159.7		5.906	1.378	6.287	111	68	2.75	9 500	6 300	2.5	*6314 N	*6314 NR	SP 150
75	115	20	121.6	2.953	4.528	0.787	4.787	41.6	33.5	1.43	12 000	7 500	0.64	*6015 N	*6015 NR	SP 115
	130	25	139.7		5.118	0.984	5.500	68.9	49	2.04	10 000	6 700	1.2	*6215 N	*6215 NR	SP 130
	160	37	169.7		6.299	1.457	6.681	119	76.5	3	9 000	5 600	3	*6315 N	*6315 NR	SP 160
80	125	22	134.7	3.150	4.921	0.866	5.303	49.4	40	1.66	11 000	7 000	0.85	*6016 N	*6016 NR	SP 125
	140	26	149.7		5.512	1.024	5.894	72.8	55	2.2	9 500	6 000	1.4	*6216 N	*6216 NR	SP 140
85	130	22	139.7	3.346	5.118	0.866	5.500	52	43	1.76	11 000	6 700	0.89	*6017 N	*6017 NR	SP 130
	150	28	159.7		5.906	1.102	6.287	87.1	64	2.5	9 000	5 600	1.8	*6217 N	*6217 NR	SP 150
90	140	24	149.7	3.543	5.512	0.945	5.894	60.5	50	1.96	10 000	6 300	1.15	*6018 N	*6018 NR	SP 140
	160	30	169.7		6.299	1.181	6.681	101	73.5	2.8	8 500	5 300	2.15	*6218 N	*6218 NR	SP 160
95	170	32	182.9	3.740	6.693	1.260	7.201	114	81.5	3	8 000	5 000	2.6	*6219 N	*6219 NR	SP 170
100	150	24	159.7	3.937	5.906	0.945	6.287	63.7	54	2.04	9 500	5 600	1.25	*6020 N	*6020 NR	SP 150
	180	34	192.9		7.087	1.339	7.594	127	93	3.35	7 500	4 800	3.15	*6220 N	*6220 NR	SP 180
105	160	26	169.7	4.134	6.299	1.024	6.681	76.1	65.5	2.4	8 500	5 300	1.6	*6021 N	*6021 NR	SP 160
110	170	28	182.9	4.331	6.693	1.102	7.201	85.2	73.5	2.6	8 000	5 000	1.95	*6022 N	*6022 NR	SP 170
120	180	28	192.9	4.724	7.087	1.102	7.594	88.4	80	2.75	7 500	4 800	2.05	*6024 N	*6024 NR	SP 180

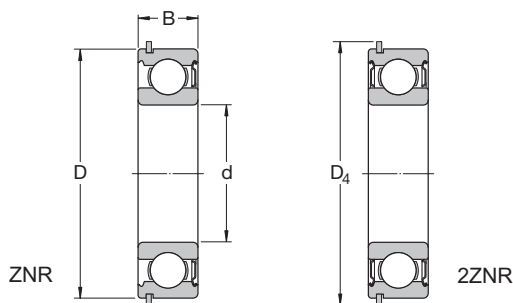
* SKF Explorer bearing

¹⁾ For snap ring dimensions see page 29



Single row deep groove ball bearings with snap ring groove and shields

d 10 - 70 mm
d 0.394 - 2.756 in



Principal dimensions								Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass	Designations		
d	D	B	D ₄	d	D	B	D ₄	dynamic	static		Reference speed	Limiting ¹⁾ speed		Bearing with one shield and snap	two shields and snap	Snap ²⁾ ring
mm				in				kN		kN	r/min	kg	-			
10	30	9	34.7	0.394	1.181	0.354	1.366	5.4	2.36	0.1	56 000	34 000	0.032	*6200-ZNR	*6200-2ZNR	SP 30
12	32	10	36.7	0.472	1.260	0.394	1.445	7.28	3.1	0.132	50 000	32 000	0.037	*6201-ZNR	*6201-2ZNR	SP 32
15	35	11	39.7	0.591	1.378	0.433	1.563	8.06	3.75	0.16	43 000	28 000	0.045	*6202-ZNR	*6202-2ZNR	SP 35
17	40	12	44.6	0.669	1.575	0.472	1.756	9.95	4.75	0.2	38 000	24 000	0.065	*6203-ZNR	*6203-2ZNR	SP 40
	47	14	52.7		1.850	0.551	2.075	14.3	6.55	0.275	34 000	22 000	0.12	*6303-ZNR	*6303-2ZNR	SP 47
20	42	12	46.3	0.787	1.654	0.472	1.823	9.95	5	0.212	38 000	24 000	0.069	*6004-ZNR	*6004-2ZNR	SP 42
	47	14	52.7		1.850	0.551	2.075	13.5	6.55	0.28	32 000	20 000	0.11	*6204-ZNR	*6204-2ZNR	SP 47
	52	15	57.9		2.047	0.591	2.280	16.8	7.8	0.335	30 000	19 000	0.14	*6304-ZNR	*6304-2ZNR	SP 52
25	47	12	52.7	0.984	1.850	0.472	2.075	11.9	6.55	0.275	32 000	20 000	0.08	*6005-ZNR	*6005-2ZNR	SP 47
	52	15	57.9		2.047	0.591	2.280	14.8	7.8	0.335	28 000	18 000	0.13	*6205-ZNR	*6205-2ZNR	SP 52
	62	17	67.7		2.441	0.669	2.665	23.4	11.6	0.49	24 000	16 000	0.23	*6305-ZNR	*6305-2ZNR	SP 62
30	62	16	67.7	1.181	2.441	0.630	2.665	20.3	11.2	0.475	24 000	15 000	0.2	*6206-ZNR	*6206-2ZNR	SP 62
	72	19	78.6		2.835	0.748	3.094	29.6	16	0.67	20 000	13 000	0.35	*6306-ZNR	*6306-2ZNR	SP 72
35	72	17	78.6	1.378	2.835	0.669	3.094	27	15.3	0.655	20 000	13 000	0.29	*6207-ZNR	*6207-2ZNR	SP 72
	80	21	86.6		3.150	0.827	3.409	35.1	19	0.815	19 000	12 000	0.46	*6307-ZNR	*6307-2ZNR	SP 80
40	80	18	86.6	1.575	3.150	0.709	3.409	32.5	19	0.8	18 000	11 000	0.37	*6208-ZNR	*6208-2ZNR	SP 80
	90	23	96.5		3.543	0.906	3.799	42.3	24	1.02	17 000	11 000	0.63	*6308-ZNR	*6308-2ZNR	SP 90
45	85	19	91.6	1.772	3.346	0.748	3.606	35.1	21.6	0.915	17 000	11 000	0.41	*6209-ZNR	*6209-2ZNR	SP 85
	100	25	106.5		3.937	0.984	4.193	55.3	31.5	1.34	15 000	9 500	0.83	*6309-ZNR	*6309-2ZNR	SP 100
50	90	20	96.5	1.969	3.543	0.787	3.799	37.1	23.2	0.98	15 000	10 000	0.46	*6210-ZNR	*6210-2ZNR	SP 90
	110	27	116.6		4.331	1.063	4.591	65	38	1.6	13 000	8 500	1.05	*6310-ZNR	*6310-2ZNR	SP 110
55	100	21	106.5	2.165	3.937	0.827	4.193	46.2	29	1.25	14 000	9 000	0.61	*6211-ZNR	*6211-2ZNR	SP 100
	120	29	129.7		4.724	1.142	5.106	74.1	45	1.9	12 000	8 000	1.35	*6311-ZNR	*6311-2ZNR	SP 120
60	110	22	116.6	2.362	4.331	0.866	4.591	55.3	36	1.53	13 000	8 000	0.78	*6212-ZNR	*6212-2ZNR	SP 110
	130	31	139.7		5.118	1.220	5.500	85.2	52	2.2	11 000	7 000	1.7	*6312-ZNR	*6312-2ZNR	SP 130
65	120	23	129.7	2.559	4.724	0.906	5.106	58.5	40.5	1.73	12 000	7 500	0.99	*6213-ZNR	*6213-2ZNR	SP 120
	140	33	149.7		5.512	1.299	5.894	97.5	60	2.5	10 000	6 700	2.1	*6313-ZNR	*6313-2ZNR	SP 140
70	125	24	134.7	2.756	4.921	0.945	5.303	63.7	45	1.9	11 000	7 000	1.05	*6214-ZNR	*6214-2ZNR	SP 125
	150	35	159.7		5.906	1.378	6.287	111	68	2.75	9 500	6 300	2.5	*6314-ZNR	*6314-2ZNR	SP 150

* SKF Explorer bearing

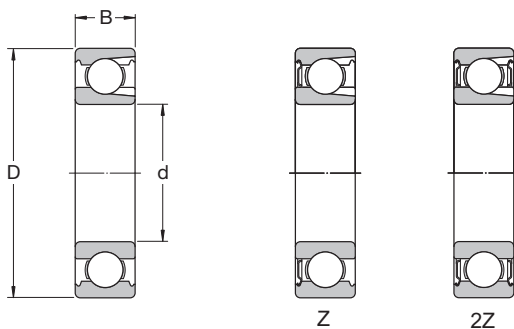
¹⁾ For 2Z design, limiting speeds are about 80% of the quoted value

²⁾ For snap ring dimensions see page 31

Single row deep groove ball bearings with filling slots

d 25 - 100 mm

d 0.984 - 3.937 in

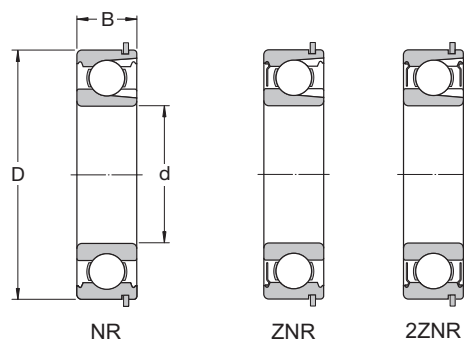


Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass kg	Designations		
d	D	B	d	D	B	dynamic C	static C_0		Ref. speed	Limiting speed		Bearing open	with shields on one side two sides	
mm			in			kN		kN	r/min		kg	-		
25	62	17	0.984	2.441	0.669	22.9	15.6	0.67	20 000	13 000	0.24	305	305-Z	305-2Z
30	62	16	1.181	2.441	0.630	22.9	17.3	0.735	20 000	12 000	0.21	206	206-Z	206-2Z
	72	19		2.835	0.748	29.2	20.8	0.88	18 000	11 000	0.37	306	306-Z	306-2Z
35	72	17	1.378	2.835	0.669	29.7	22.8	0.965	17 000	11 000	0.31	207	207-Z	207-2Z
	80	21		3.150	0.827	39.1	28.5	1.2	16 000	10 000	0.48	307	307-Z	307-2Z
40	80	18	1.575	3.150	0.709	33.6	26.5	1.12	15 000	9 500	0.39	208	208-Z	208-2Z
	90	23		3.543	0.906	46.8	36	1.53	14 000	9 000	0.64	308	308-Z	308-2Z
45	85	19	1.772	3.346	0.748	39.6	32.5	1.37	14 000	9 000	0.44	209	209-Z	209-2Z
	100	25		3.937	0.984	59.4	46.5	1.96	13 000	8 000	0.88	309	309-Z	309-2Z
50	90	20	1.969	3.543	0.787	39.1	34.5	1.46	13 000	8 000	0.5	210	210-Z	210-2Z
	110	27		4.331	1.063	64.4	52	2.2	11 000	7 000	1.15	310	310-Z	310-2Z
55	100	21	2.165	3.937	0.827	48.4	44	1.86	12 000	7 500	0.66	211	211-Z	211-2Z
	120	29		4.724	1.142	79.2	67	2.85	10 000	6 700	1.5	311	311-Z	311-2Z
60	110	22	2.362	4.331	0.866	56.1	50	2.12	11 000	6 700	0.85	212	212-Z	212-2Z
	130	31		5.118	1.220	91.3	78	3.35	9 500	6 000	1.85	312	312-Z	312-2Z
65	120	23	2.559	4.724	0.906	60.5	58.5	2.5	10 000	6 000	1.05	213	213-Z	213-2Z
	140	33		5.512	1.299	102	90	3.75	9 000	5 600	2.3	313	313-Z	313-2Z
70	125	24	2.756	4.921	0.945	66	65.5	2.75	9 500	6 000	1.15	214	214-Z	214-2Z
	150	35		5.906	1.378	114	102	4.15	8 000	5 000	2.75	314	314-Z	314-2Z
75	130	25	2.953	5.118	0.984	72.1	72	3	9 000	5 600	1.25	215	215-Z	215-2Z
	160	37		6.299	1.457	125	116	4.55	7 500	4 800	3.25	315	315-Z	315-2Z
80	140	26	3.150	5.512	1.024	88	85	3.45	8 500	5 300	1.55	216	216-Z	216-2Z
	170	39		6.693	1.535	138	129	4.9	7 000	4 500	3.95	316	316-Z	316-2Z
85	150	28	3.346	5.906	1.102	96.8	100	3.9	7 500	4 800	1.95	217	217-Z	217-2Z
	180	41		7.087	1.614	147	146	5.3	6 700	4 300	4.6	317	317-Z	317-2Z
90	160	30	3.543	6.299	1.181	112	114	4.3	7 000	4 500	2.35	218	218-Z	218-2Z
	190	43		7.480	1.693	157	160	5.7	6 300	4 000	5.4	318	318-Z	318-2Z
95	170	32	3.740	6.693	1.260	121	122	4.5	6 700	4 300	2.7	219	219-Z	219-2Z
100	180	34	3.937	7.087	1.339	134	140	5	6 300	4 000	3.45	220	220-Z	220-2Z



Single row deep groove ball bearings with filling slots and snap ring

d 25 - 95 mm
d 0.984 - 3.740 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass kg	Designations			Snap ²⁾ ring
d	D	B	d	D	B	dynamic C	static C_0		Reference speed	Limiting ¹⁾ speed		Bearing open	with shields on one side two sides		
mm			in			kN		kN	r/min		kg	-			
25	62	17	0.984	2.441	0.669	23	16	1	20 000	13 000	0.24	305 NR	305-ZNR	305-2ZNR	SP 62
30	62	16	1.181	2.441	0.630	22.9	17.3	0.735	20 000	12 000	0.21	206 NR	206-ZNR	206-2ZNR	SP 62
	72	19		2.835	0.748	29.2	20.8	0.88	18 000	11 000	0.37	306 NR	306-ZNR	306-2ZNR	SP 72
35	72	17	1.378	2.835	0.669	29.7	22.8	0.965	17 000	11 000	0.31	207 NR	207-ZNR	207-2ZNR	SP 72
	80	21		3.150	0.827	39.1	28.5	1.2	16 000	10 000	0.48	307 NR	307-ZNR	307-2ZNR	SP 80
40	80	18	1.575	3.150	0.709	33.6	26.5	1.12	15 000	9 500	0.39	208 NR	208-ZNR	208-2ZNR	SP 80
	90	23		3.543	0.906	46.8	36	1.53	14 000	9 000	0.64	308 NR	308-ZNR	308-2ZNR	SP 90
45	85	19	1.772	3.346	0.748	39.6	32.5	1.37	14 000	9 000	0.44	209 NR	209-ZNR	209-2ZNR	SP 85
	100	25		3.937	0.984	59.4	46.5	1.96	13 000	8 000	0.88	309 NR	309-ZNR	309-2ZNR	SP 100
50	90	20	1.969	3.543	0.787	39.1	34.5	1.46	13 000	8 000	0.5	210 NR	210-ZNR	210-2ZNR	SP 90
	110	27		4.331	1.063	64.4	52	2.2	11 000	7 000	1.15	310 NR	310-ZNR	310-2ZNR	SP 110
55	100	21	2.165	3.937	0.827	48.4	44	1.86	12 000	7 500	0.66	211 NR	211-ZNR	211-2ZNR	SP 100
	120	29		4.724	1.142	79.2	67	2.85	10 000	6 700	1.5	311 NR	311-ZNR	311-2ZNR	SP 120
60	110	22	2.362	4.331	0.866	56.1	50	2.12	11 000	6 700	0.85	212 NR	212-ZNR	212-2ZNR	SP 110
	130	31		5.118	1.220	91.3	78	3.35	9 500	6 000	1.85	312 NR	312-ZNR	312-2ZNR	SP 130
65	120	23	2.559	4.724	0.906	60.5	58.5	2.5	10 000	6 000	1.05	213 NR	213-ZNR	213-2ZNR	SP 120
	140	33		5.512	1.299	102	90	3.75	9 000	5 600	2.3	313 NR	313-ZNR	313-2ZNR	SP 140
70	125	24	2.756	4.921	0.945	66	65.5	2.75	9 500	6 000	1.15	214 NR	214-ZNR	214-2ZNR	SP 125
	150	35		5.906	1.378	114	102	4.15	8 000	5 000	2.75	314 NR	314-ZNR	314-2ZNR	SP 150
75	130	25	2.953	5.118	0.984	72.1	72	3	9 000	5 600	1.25	215 NR	215-ZNR	215-2ZNR	SP 130
80	140	26	3.150	5.512	1.024	88	85	3.45	8 500	5 300	1.55	216 NR	216-ZNR	216-2ZNR	SP 140
85	150	28	3.346	5.906	1.102	96.8	100	3.9	7 500	4 800	1.95	217 NR	-	-	SP 150
90	160	30	3.543	6.299	1.181	112	114	4	7 000	4 500	2.35	218 NR	-	-	SP 160
95	170	32	3.740	6.693	1.260	121	122	5	6 700	4 300	2.7	219 NR	-	-	SP 170

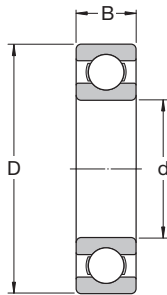
¹⁾ For 2Z design, limiting speeds are about 80% of the quoted value

²⁾ For snap ring dimensions see page 31

Stainless steel deep groove ball bearings

d 1 - 12 mm

d 0.039 - 0.472 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass kg	Designation
d	D	B	d	D	B	dynamic C	static C_0		Reference speed	Limiting speed		
mm			in			kN		kN	r/min			-
1	3	1	0.039	0.118	0.039	0.056	0.017	0.00075	240 000	150 000	0.000036	W 618/1
2	5	1.5	0.079	0.197	0.059	0.133	0.045	0.002	85 000	100 000	0.00015	W 618/2
3	6	3	0.118	0.236	0.118	0.178	0.057	0.0025	170 000	110 000	0.00035	W 637/3
	10	4		0.394	0.157	0.39	0.129	0.0056	130 000	80 000	0.0016	W 623
4	9	2.5	0.157	0.354	0.098	0.449	0.173	0.0075	140 000	85 000	0.0007	W 618/4
	11	4		0.433	0.157	0.605	0.224	0.0098	130 000	80 000	0.0019	W 619/4
	12	4		0.472	0.157	0.676	0.27	0.012	120 000	75 000	0.0024	W 604
	13	5		0.512	0.197	0.793	0.28	0.012	110 000	67 000	0.0031	W 624
5	11	3	0.197	0.433	0.118	0.54	0.245	0.011	120 000	75 000	0.0012	W 618/5
	13	4		0.512	0.157	0.741	0.325	0.014	110 000	67 000	0.0023	W 619/5
	16	5		0.630	0.197	0.923	0.365	0.016	95 000	60 000	0.005	W 625
6	13	3.5	0.236	0.512	0.138	0.741	0.335	0.015	110 000	67 000	0.002	W 618/6
	15	5		0.591	0.197	1.04	0.455	0.02	100 000	63 000	0.0039	W 619/6
	19	6		0.748	0.236	1.86	0.915	0.04	80 000	50 000	0.0084	W 626
7	17	5	0.276	0.669	0.197	1.24	0.54	0.024	90 000	56 000	0.0049	W 619/7
	19	6		0.748	0.236	1.86	0.915	0.04	85 000	53 000	0.0075	W 607
	22	7		0.866	0.276	2.76	1.32	0.057	70 000	45 000	0.013	W 627
8	16	4	0.315	0.630	0.157	1.12	0.55	0.024	90 000	56 000	0.003	W 618/8
	19	6		0.748	0.236	1.59	0.71	0.031	80 000	50 000	0.0071	W 619/8
	22	7		0.866	0.276	2.76	1.32	0.057	75 000	48 000	0.012	W 608
9	17	4	0.354	0.669	0.157	1.19	0.62	0.027	85 000	53 000	0.0034	W 618/9
	20	6		0.787	0.236	1.74	0.83	0.036	80 000	48 000	0.0076	W 619/9
	24	7		0.945	0.276	3.12	1.6	0.071	70 000	43 000	0.014	W 609
	26	8		1.024	0.315	3.9	1.9	0.083	60 000	38 000	0.02	W 629
10	15	3	0.394	0.591	0.118	0.715	0.425	0.018	85 000	56 000	0.0014	W 61700
	19	5		0.748	0.197	1.14	0.57	0.025	80 000	48 000	0.0055	W 61800
	22	6		0.866	0.236	1.74	0.815	0.036	75 000	45 000	0.01	W 61900
	26	8		1.024	0.315	3.9	1.9	0.083	67 000	40 000	0.019	W 6000
	30	9		1.181	0.354	4.23	2.28	0.1	56 000	34 000	0.032	W 6200
	35	11		1.378	0.433	6.76	3.25	0.143	50 000	32 000	0.053	W 6300
12	21	5	0.472	0.827	0.197	1.21	0.64	0.028	70 000	43 000	0.0063	W 61801
	24	6		0.945	0.236	1.9	0.95	0.043	67 000	40 000	0.011	W 61901
	28	8		1.102	0.315	4.23	2.28	0.1	60 000	38 000	0.022	W 6001
	32	10		1.260	0.394	5.85	3	0.132	50 000	32 000	0.037	W 6201
	37	12		1.457	0.472	8.19	4.05	0.176	45 000	28 000	0.06	W 6301

Stainless steel deep groove ball bearings

d 15 - 50 mm

d 0.591 - 1.969 in

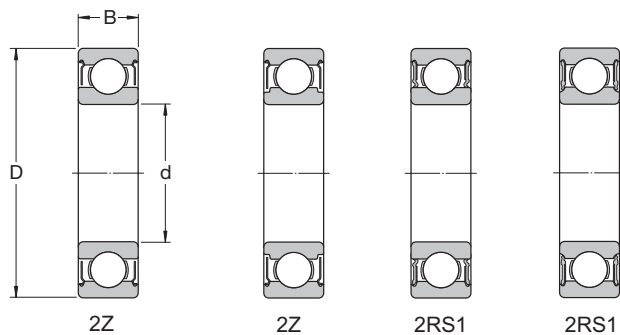


Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass kg	Designation
d	D	B	d	D	B	dynamic C	static C_0		Reference speed	Limiting speed		
			in				kN		kN	r/min		–
15	24	5	0.591	0.945	0.197	1.3	0.78	0.034	60 000	38 000	0.0074	W 61802
	28	7		1.102	0.276	3.64	2.16	0.095	56 000	34 000	0.016	W 61902
	32	9		1.260	0.354	4.68	2.75	0.12	50 000	32 000	0.03	W 6002
	35	11		1.378	0.433	6.5	3.65	0.16	43 000	28 000	0.045	W 6202
	42	13		1.654	0.512	9.56	5.2	0.228	38 000	24 000	0.085	W 6302
17	30	7	0.669	1.181	0.276	3.9	2.45	0.108	56 000	28 000	0.018	W 61903
	35	10		1.378	0.394	5.07	3.15	0.137	45 000	28 000	0.039	W 6003
	40	12		1.575	0.472	8.06	4.65	0.2	38 000	24 000	0.065	W 6203
	47	14		1.850	0.551	11.4	6.3	0.275	34 000	22 000	0.12	W 6303
20	32	7	0.787	1.260	0.276	3.38	2.24	0.104	45 000	28 000	0.018	W 61804
	42	12		1.654	0.472	7.93	4.9	0.212	38 000	24 000	0.069	W 6004
	47	14		1.850	0.551	10.8	6.4	0.28	32 000	20 000	0.11	W 6204
	52	15		2.047	0.591	13.5	7.65	0.335	30 000	19 000	0.14	W 6304
25	47	12	0.984	1.850	0.472	8.52	5.7	0.25	32 000	20 000	0.08	W 6005
	52	15		2.047	0.591	11.9	7.65	0.335	28 000	18 000	0.13	W 6205
	62	17		2.441	0.669	17.2	10.8	0.475	24 000	16 000	0.23	W 6305
30	55	13	1.181	2.165	0.512	11.1	8	0.355	28 000	17 000	0.12	W 6006
	62	16		2.441	0.630	16.3	10.8	0.475	24 000	15 000	0.2	W 6206
	72	19		2.835	0.748	22.5	14.6	0.64	20 000	13 000	0.35	W 6306
35	62	14	1.378	2.441	0.551	13.5	10	0.44	24 000	15 000	0.16	W 6007
	72	17		2.835	0.669	21.6	14.6	0.655	20 000	13 000	0.29	W 6207
40	68	15	1.575	2.677	0.591	14	10.8	0.49	22 000	14 000	0.19	W 6008
	80	18		3.150	0.709	24.7	17.3	0.75	18 000	11 000	0.37	W 6208
45	75	16	1.772	2.953	0.630	17.8	14.6	0.64	20 000	12 000	0.25	W 6009
	85	19		3.346	0.748	27.6	19.6	0.865	17 000	11 000	0.41	W 6209
50	80	16	1.969	3.150	0.630	18.2	16	0.71	18 000	11 000	0.26	W 6010
	90	20		3.543	0.787	29.6	22.4	0.98	15 000	10 000	0.46	W 6210

Sealed stainless steel deep groove ball bearings

d 1.5 - 7 mm

d 0.059 - 0.276 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass kg	Designation
d	D	B	d	D	B	dynamic C	static C_0		Reference speed	Limiting speed		
			in			kN		kN	r/min			–
1.5	4	2	0.059	0.157	0.079	0.114	0.034	0.0015	220 000	110 000	0.00014	W 638/1.5-2Z
2	5	2.3	0.079	0.197	0.091	0.156	0.048	0.002	190 000	95 000	0.00018	W 638/2-2Z
	6	3		0.236	0.118	0.238	0.075	0.0034	180 000	90 000	0.00035	W 639/2-2Z
3	6	3	0.118	0.236	0.118	0.176	0.057	0.0025	170 000	85 000	0.00035	W 637/3-2Z
	7	3		0.276	0.118	0.216	0.085	0.0036	160 000	80 000	0.00045	W 638/3-2Z
	8	3		0.315	0.118	0.39	0.129	0.0056	150 000	75 000	0.00067	W 619/3-2Z
	8	4		0.315	0.157	0.39	0.129	0.0056	150 000	75 000	0.0008	W 639/3-2Z
	10	4		0.394	0.157	0.39	0.129	0.0056	130 000	63 000	0.0015	W 623-2Z
4	9	3.5	0.157	0.354	0.138	0.449	0.173	0.0075	140 000	70 000	0.001	W 628/4-2Z
	9	4		0.354	0.157	0.449	0.173	0.0075	140 000	70 000	0.001	W 638/4-2Z
	11	4		0.433	0.157	0.605	0.224	0.0098	130 000	63 000	0.0017	W 619/4-2Z
	12	4		0.472	0.157	0.676	0.27	0.012	120 000	60 000	0.0023	W 604-2Z
	13	5		0.512	0.197	0.793	0.28	0.012	110 000	53 000	0.0031	W 624-2Z
	13	5		0.512	0.197	0.793	0.28	0.012	–	32 000	0.0031	W 624-2RS1
5	8	2.5	0.197	0.315	0.098	0.14	0.057	0.0025	140 000	70 000	0.00034	W 627/5-2Z
	11	4		0.433	0.157	0.54	0.245	0.011	120 000	60 000	0.00062	W 628/5-2Z
	11	5		0.433	0.197	0.54	0.245	0.011	120 000	60 000	0.0019	W 638/5-2Z
	13	4		0.512	0.157	0.741	0.325	0.014	110 000	53 000	0.0025	W 619/5-2Z
	16	5		0.630	0.197	0.923	0.365	0.016	95 000	48 000	0.005	W 625-2Z
	16	5		0.630	0.197	0.923	0.365	0.016	–	28 000	0.005	W 625-2RS1
6	19	6	0.236	0.748	0.236	1.86	0.915	0.04	80 000	40 000	0.009	W 635-2Z
	10	3		0.394	0.118	0.319	0.137	0.0061	120 000	60 000	0.0007	W 627/6-2Z
	13	5		0.512	0.197	0.741	0.335	0.015	110 000	53 000	0.0027	W 628/6-2Z
	15	5		0.591	0.197	1.04	0.455	0.02	100 000	50 000	0.0037	W 619/6-2Z
	19	6		0.748	0.236	1.86	0.915	0.04	80 000	40 000	0.0087	W 626-2Z
	19	6		0.748	0.236	1.86	0.915	0.04	–	24 000	0.0087	W 626-2RS1
7	11	3	0.276	0.433	0.118	0.291	0.127	0.0056	110 000	56 000	0.0007	W 627/7-2Z
	14	5		0.551	0.197	0.806	0.39	0.017	100 000	50 000	0.003	W 628/7-2Z
	17	5		0.669	0.197	1.24	0.54	0.024	90 000	45 000	0.005	W 619/7-2Z
	19	6		0.748	0.236	1.86	0.915	0.04	85 000	43 000	0.0082	W 607-2Z
	19	6		0.748	0.236	1.86	0.915	0.04	–	24 000	0.0082	W 607-2RS1
	22	7		0.866	0.276	2.76	1.32	0.057	70 000	36 000	0.013	W 627-2Z

Sealed stainless steel deep groove ball bearings

d 8 - 12 mm

d 0.315 - 0.472 in

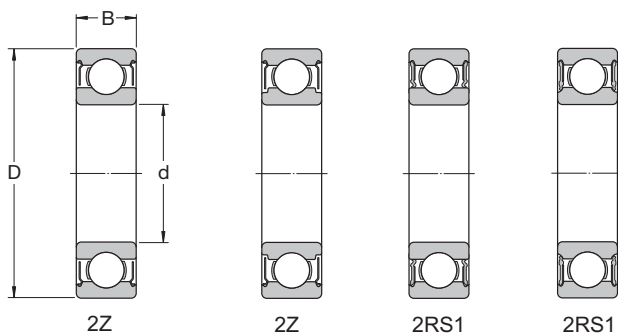


Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass kg	Designation
d	D	B	d	D	B	dynamic C	static C_0		Reference speed	Limiting speed		
			in			kN		kN	r/min			–
8	16	5	0.315	0.630	0.197	1.12	0.55	0.024	90 000	45 000	0.004	W 628/8-2Z
	16	6		0.630	0.236	1.12	0.55	0.024	90 000	45 000	0.0043	W 638/8-2Z
	19	6		0.748	0.236	1.59	0.71	0.031	80 000	40 000	0.0076	W 619/8-2Z
	19	6		0.748	0.236	1.46	0.6	1.6	–	24 000	0.0071	W 619/8-2RS1
	22	7		0.866	0.276	2.76	1.32	0.057	75 000	38 000	0.013	W 608-2Z
	22	7		0.866	0.276	2.76	1.32	0.057	–	22 000	0.013	W 608-2RS1
9	17	5	0.354	0.669	0.197	1.19	0.62	0.027	85 000	43 000	0.0044	W 628/9-2Z
	20	6		0.787	0.236	1.74	0.83	0.036	80 000	38 000	0.0085	W 619/9-2Z
	24	7		0.945	0.276	3.12	1.6	0.071	70 000	34 000	0.016	W 609-2Z
	26	8		1.024	0.315	3.9	1.9	0.083	60 000	30 000	0.022	W 629-2Z
10	19	5	0.394	0.748	0.197	1.14	0.57	0.025	80 000	38 000	0.0056	W 61800-2Z
	19	7		0.748	0.276	1.14	0.57	0.025	80 000	38 000	0.0074	W 63800-2Z
	22	6		0.866	0.236	1.74	0.815	0.036	75 000	36 000	0.01	W 61900-2Z
	26	8		1.024	0.315	3.9	1.9	0.083	67 000	34 000	0.019	W 6000-2Z
	26	8		1.024	0.315	3.9	1.9	0.083	–	19 000	0.019	W 6000-2RS1
	30	9		1.181	0.354	4.23	2.28	0.1	56 000	28 000	0.032	W 6200-2Z
	30	9		1.181	0.354	4.23	2.28	0.1	–	17 000	0.032	W 6200-2RS1
	35	11		1.378	0.433	6.76	3.25	0.143	50 000	26 000	0.053	W 6300-2Z
	35	11		1.378	0.433	6.76	3.25	0.143	–	15 000	0.053	W 6300-2RS1
	12	21	5	0.472	0.827	0.197	1.21	0.64	0.028	70 000	36 000	0.0065
24		6	0.945		0.236	1.9	0.95	0.043	67 000	32 000	0.012	W 61901-2Z
28		8		1.102	0.315	4.23	2.28	0.1	60 000	30 000	0.022	W 6001-2Z
28		8		1.102	0.315	4.23	2.28	0.1	–	17 000	0.022	W 6001-2RS1
32		10		1.260	0.394	5.85	3	0.132	50 000	26 000	0.037	W 6201-2Z
32		10		1.260	0.394	5.85	3	0.132	–	15 000	0.037	W 6201-2RS1
37		12		1.457	0.472	8.19	4.05	0.176	45 000	22 000	0.06	W 6301-2Z
37		12		1.457	0.472	8.19	4.05	0.176	–	14 000	0.06	W 6301-2RS1

Sealed stainless steel deep groove ball bearings

d 15 - 25 mm

d 0.591 - 0.984 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass kg	Designation	
d	D	B	d	D	B	dynamic C	static C_0		Reference speed	Limiting speed			
			in			kN		r/min					
15	24	5	0.591	0.945	0.197	1.3	0.78	0.034	60 000	30 000	0.0076	W 61802-2Z	
	28	7		1.102	0.276	3.64	2.16	0.095	56 000	28 000	0.019	W 61902-2Z	
	28	7		1.102	0.276	3.64	2.16	0.095	–	16 000	0.019	W 61902-2RS1	
	32	9		1.260	0.354	4.68	2.75	0.12	50 000	26 000	0.03	W 6002-2Z	
	32	9		1.260	0.354	4.68	2.75	0.12	–	14 000	0.03	W 6002-2RS1	
	35	11		1.378	0.433	6.5	3.65	0.16	43 000	22 000	0.045	W 6202-2Z	
	35	11		1.378	0.433	6.5	3.65	0.16	–	13 000	0.045	W 6202-2RS1	
	42	13		1.654	0.512	9.56	5.2	0.228	38 000	19 000	0.082	W 6302-2Z	
	42	13		1.654	0.512	9.56	5.2	0.228	–	12 000	0.082	W 6302-2RS1	
	17	26	5	0.669	1.024	0.197	1.4	0.9	0.039	56 000	34 000	0.0082	W 61803-2Z
		30	7		1.181	0.276	3.9	2.45	0.108	50 000	32 000	0.019	W 61903-2Z
		30	7		1.181	0.276	3.9	2.45	0.108	–	14 000	0.019	W 61903-2RS1
35		10		1.378	0.394	5.07	3.15	0.137	45 000	22 000	0.039	W 6003-2Z	
35		10		1.378	0.394	5.07	3.15	0.137	–	13 000	0.039	W 6003-2RS1	
40		12		1.575	0.472	8.06	4.65	0.2	38 000	19 000	0.065	W 6203-2Z	
40		12		1.575	0.472	8.06	4.65	0.2	–	12 000	0.065	W 6203-2RS1	
47		14		1.850	0.551	11.4	6.3	0.275	34 000	17 000	0.12	W 6303-2Z	
47		14		1.850	0.551	11.4	6.3	0.275	–	11 000	0.12	W 6303-2RS1	
20		32	7	0.787	1.260	0.276	3.38	2.24	0.104	–	13 000	0.018	W 61804-2RS1
		37	9		1.457	0.354	5.4	3.55	0.156	–	12 000	0.04	W 61904-2RS1
		42	12		1.654	0.472	7.93	4.9	0.212	38 000	19 000	0.069	W 6004-2Z
	42	12		1.654	0.472	7.93	4.9	0.212	–	11 000	0.069	W 6004-2RS1	
	47	14		1.850	0.551	10.8	6.4	0.28	32 000	17 000	0.11	W 6204-2Z	
	47	14		1.850	0.551	10.8	6.4	0.28	–	10 000	0.11	W 6204-2RS1	
	52	15		2.047	0.591	13.5	7.65	0.335	30 000	15 000	0.14	W 6304-2Z	
	52	15		2.047	0.591	13.5	7.65	0.335	–	9 500	0.14	W 6304-2RS1	
	25	42	9	0.984	1.654	0.354	5.92	4.15	0.193	–	10 000	0.047	W 61905-2RS1
		47	12		1.850	0.472	8.52	5.7	0.25	32 000	16 000	0.08	W 6005-2Z
		47	12		1.850	0.472	8.52	5.7	0.25	–	9 500	0.08	W 6005-2RS1
		52	15		2.047	0.591	11.9	7.65	0.335	28 000	14 000	0.13	W 6205-2Z
52		15		2.047	0.591	11.9	7.65	0.335	–	8 500	0.13	W 6205-2RS1	
62		17		2.441	0.669	17.2	10.8	0.475	24 000	13 000	0.23	W 6305-2Z	
62		17		2.441	0.669	17.2	10.8	0.475	–	7 500	0.23	W 6305-2RS1	

Sealed stainless steel deep groove ball bearings

d 30 - 50 mm

d 1.181 - 1.969 in

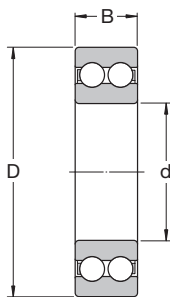


Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass kg	Designation
d	D	B	d	D	B	dynamic C	static C_0		Reference speed	Limiting speed		
mm			in			kN		kN	r/min			–
30	55	13	1.181	2.165	0.512	11.1	8	0.355	28 000	14 000	0.12	W 6006-2Z
	55	13		2.165	0.512	11.1	8	0.355	–	8 000	0.12	W 6006-2RS1
	62	16		2.441	0.630	16.3	10.8	0.475	24 000	12 000	0.2	W 6206-2Z
	62	16		2.441	0.630	16.3	10.8	0.475	–	7 500	0.2	W 6206-2RS1
	72	19		2.835	0.748	22.5	14.6	0.64	20 000	11 000	0.35	W 6306-2Z
	72	19		2.835	0.748	22.5	14.6	0.64	–	6 300	0.35	W 6306-2RS1
35	62	14	1.378	2.441	0.551	13.5	10	0.44	24 000	12 000	0.16	W 6007-2Z
	62	14		2.441	0.551	13.5	10	0.44	–	7 000	0.16	W 6007-2RS1
	72	17		2.835	0.669	21.6	14.6	0.655	20 000	10 000	0.29	W 6207-2Z
	72	17		2.835	0.669	21.6	14.6	0.655	–	6 300	0.29	W 6207-2RS1
40	68	15	1.575	2.677	0.591	14	10.8	0.49	22 000	11 000	0.19	W 6008-2Z
	68	15		2.677	0.591	14	10.8	0.49	–	6 300	0.19	W 6008-2RS1
	80	18		3.150	0.709	24.7	17.3	0.75	18 000	90 000	0.37	W 6208-2Z
	80	18		3.150	0.709	24.7	17.3	0.75	–	5 600	0.37	W 6208-2RS1
45	75	16	1.772	2.953	0.630	17.8	14.6	0.64	20 000	10 000	0.25	W 6009-2Z
	75	16		2.953	0.630	17.8	14.6	0.64	–	5 600	0.25	W 6009-2RS1
	85	19		3.346	0.748	27.6	19.6	0.865	17 000	8 500	0.41	W 6209-2Z
	85	19		3.346	0.748	27.6	19.6	0.865	–	5 000	0.41	W 6209-2RS1
50	80	16	1.969	3.150	0.630	18.2	16	0.71	18 000	9 000	0.26	W 6010-2Z
	80	16		3.150	0.630	18.2	16	0.71	–	5 000	0.26	W 6010-2RS1
	90	20		3.543	0.787	29.6	22.4	0.98	15 000	8 000	0.46	W 6210-2Z
	90	20		3.543	0.787	29.6	22.4	0.98	–	4 800	0.46	W 6210-2RS1

Double row deep groove ball bearings

d 10 - 100 mm

d 0.394 - 3.937 in



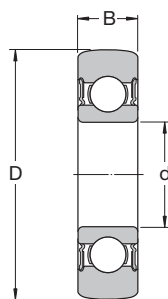
Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass kg	Designation
d	D	B	d	D	B	dynamic C	static C_0		Reference speed	Limiting speed		
mm			in			kN		kN	r/min		kg	—
10	30	14	0.394	1.181	0.551	9.23	5.2	0.224	40 000	22 000	0.049	4200 ATN9
12	32	14	0.472	1.260	0.551	10.6	6.2	0.26	36 000	20 000	0.053	4201 ATN9
	37	17		1.457	0.669	13	7.8	0.325	34 000	18 000	0.092	4301 ATN9
15	35	14	0.591	1.378	0.551	11.9	7.5	0.32	32 000	17 000	0.059	4202 ATN9
	42	17		1.654	0.669	14.8	9.5	0.405	28 000	15 000	0.12	4302 ATN9
17	40	16	0.669	1.575	0.630	14.8	9.5	0.405	28 000	15 000	0.09	4203 ATN9
	47	19		1.850	0.748	19.5	13.2	0.56	24 000	13 000	0.16	4303 ATN9
20	47	18	0.787	1.850	0.709	17.8	12.5	0.53	24 000	13 000	0.14	4204 ATN9
	52	21		2.047	0.827	23.4	16	0.68	22 000	12 000	0.21	4304 ATN9
25	52	18	0.984	2.047	0.709	19	14.6	0.62	20 000	11 000	0.16	4205 ATN9
	62	24		2.441	0.945	31.9	22.4	0.95	18 000	10 000	0.34	4305 ATN9
30	62	20	1.181	2.441	0.787	26	20.8	0.88	17 000	9 500	0.26	4206 ATN9
	72	27		2.835	1.063	41	30	1.27	16 000	8 500	0.5	4306 ATN9
35	72	23	1.378	2.835	0.906	35.1	28.5	1.2	15 000	8 000	0.4	4207 ATN9
	80	31		3.150	1.220	50.7	38	1.63	14 000	7 500	0.69	4307 ATN9
40	80	23	1.575	3.150	0.906	37.1	32.5	1.37	13 000	7 000	0.5	4208 ATN9
	90	33		3.543	1.299	55.9	45	1.9	12 000	6 700	0.95	4308 ATN9
45	85	23	1.772	3.346	0.906	39	36	1.53	12 000	6 700	0.54	4209 ATN9
	100	36		3.937	1.417	68.9	56	2.4	11 000	6 000	1.25	4309 ATN9
50	90	23	1.969	3.543	0.906	41	40	1.7	11 000	6 000	0.58	4210 ATN9
	110	40		4.331	1.575	81.9	69.5	2.9	10 000	5 300	1.7	4310 ATN9
55	100	25	2.165	3.937	0.984	44.9	44	1.9	10 000	5 600	0.8	4211 ATN9
	120	43		4.724	1.693	97.5	83	3.45	9 000	5 000	2.15	4311 ATN9
60	110	28	2.362	4.331	1.102	57.2	55	2.36	9 500	5 300	1.1	4212 ATN9
	130	46		5.118	1.811	112	98	4.15	8 500	4 500	2.65	4312 ATN9
65	120	31	2.559	4.724	1.220	67.6	67	2.8	8 500	4 800	1.45	4213 ATN9
	140	48		5.512	1.890	121	106	4.5	8 000	4 300	3.25	4313 ATN9
70	125	31	2.756	4.921	1.220	70.2	73.5	3.1	8 000	4 300	1.5	4214 ATN9
	150	51		5.906	2.008	138	125	5	7 000	3 800	3.95	4314 ATN9
75	130	31	2.953	5.118	1.220	72.8	80	3.35	7 500	4 000	1.6	4215 ATN9
	160	55		6.299	2.165	156	143	5.5	6 700	3 600	4.8	4315 ATN9
80	140	33	3.150	5.512	1.299	80.6	90	3.6	7 000	3 800	2	4216 ATN9
85	150	36	3.346	5.906	1.417	93.6	102	4	7 000	3 600	2.55	4217 ATN9
90	160	40	3.543	6.299	1.575	112	122	4.65	6 300	3 400	3.2	4218 ATN9
100	180	46	3.937	7.087	1.811	140	156	5.6	5 600	3 000	4.7	4220 ATN9



Single row cam rollers

D 32 - 80 mm

D 1.260 - 3.150 in



Dimensions												Limiting speed	Mass	Designation
D	B	d	D	B	d	C	C ₀	P _u	d ₁ ~	D ₁ ~	r _{1,2} Min			
mm			in			kN		kN		r/min	kg	-		
32	9	10	1.260	0.354	0.394	4.62	2	0.085	14.8	23.4	0.6	12 000	0.041	361200 R
35	10	12	1.378	0.394	0.472	6.24	2.6	0.11	16.1	25.9	0.6	11 000	0.052	361201 R
40	11	15	1.575	0.433	0.591	7.02	3.2	0.134	19.2	29.7	0.6	9 500	0.074	361202 R
47	12	17	1.850	0.472	0.669	8.84	4.15	0.176	21.6	32.9	0.6	8 500	0.11	361203 R
52	14	20	2.047	0.551	0.787	11.4	5.4	0.228	26	38.7	1	7 500	0.16	361204 R
62	15	25	2.441	0.591	0.984	12.7	6.8	0.285	31.4	44.2	1	6 300	0.24	361205 R
72	16	30	2.835	0.630	1.181	17.4	9.3	0.4	37.6	52.1	1	5 300	0.34	361206 R
80	17	35	3.150	0.669	1.378	22.1	11.8	0.5	44	60.6	1.1	4 500	0.43	361207 R

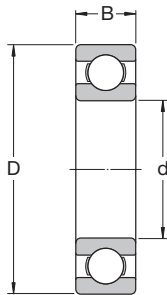
Note: C3 clearance is standard

MRC R series small inch-size

d 3.2 - 38.1 mm

d 0.1250 - 1.5000 in

R series bearings are single-row radial conrad-type bearings that are available in inch sizes for shafts from 1/8" to 1 1/2" in diameter. Open, shielded, and sealed types are available, and many sizes are available in stainless steel. R series supplied with ABMA CN radial clearance unless otherwise specified.



MRC Bearing Number	Bore			Outside Width			Basic Radial Load Rating		Speed Ratings ¹⁾		Single and Double Sealed Grease
	d	D	B	d	D	B	Dynamic ²⁾	Static	Open and Shielded Grease	Oil	
	mm			in			kN	kN	rpm	rpm	rpm
R-2	3.2	9.5	4.0	0.1250	0.3750	0.1562	0.312	0.120	75 000	91 000	52 000
R-2-A	3.2	12.7	4.4	0.1250	0.5000	0.1719	0.312	0.120	75 000	91 000	52 000
R-3	4.8	12.7	4.0	0.1875	0.5000	0.1562	0.956	0.490	57 000	69 000	40 000
R-4	6.4	15.9	5.0	0.2500	0.6250	0.1960	1.480	0.620	44 000	54 000	31 000
R-4-A	6.4	19.1	5.6	0.2500	0.7500	0.2188	2.810	1.160	39 000	48 000	27 000
R-6	9.5	22.2	5.6	0.3750	0.8750	0.2188	3.320	1.340	31 000	38 000	21 000
R-8	12.7	28.6	6.4	0.5000	1.1250	0.2500	5.070	2.400	24 000	29 000	16 000
R-10	15.9	34.9	7.1	0.6250	1.3750	0.2812	6.050	3.250	18 000	22 000	13 000
R-12	19.1	41.3	7.9	0.7500	1.6250	0.3125	9.360	5.100	16 000	19 000	11 000
R-14	22.2	47.6	9.5	0.8750	1.8750	0.3750	10.100	5.850	14 000	17 000	9 600
R-16	25.4	50.8	9.5	1.0000	2.0000	0.3750	10.100	6.000	13 000	16 000	9 000
R-18	28.6	54.0	9.5	1.1250	2.1250	0.3750	12.500	7.500	11 000	14 000	7 900
R-20	31.8	57.2	9.5	1.1250	2.2500	0.3750	14.000	9.300	11 000	13 000	7 500
R-24	38.1	66.7	11.1	1.5000	2.6250	0.4375	16.800	11.800	9 000	11 000	6 200

¹⁾ Listed values are for pressed steel or polyamide cage, ABEC-1.

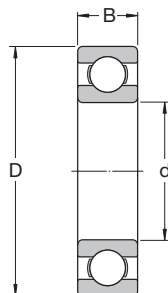
For phenolic composition cage, multiply by 1.66 for grease and 2.00 for oil. For machined bronze cage, multiply by 1.25 for grease and 1.50 for oil. For phenolic composition cage, ABEC-5 or 7, multiply by 2.30 for grease and 2.80 for oil. The speed rating adjustment factors have been determined through historical application and practice.

²⁾ Rating for one million revolutions or 500 hours at 33 1/3 RPM.



Single row deep groove ball bearings Series RLS

d **0.5000 - 2.5000** mm
d **12.700 - 63.500** in



Bearing Number	Designation		Principal Dimensions						Basic dynamic load rating	Speed ratings		Mass
			d	D	B	d	D	B		C	Lubrication grease	
	-Z	-2Z	in			mm			kN	rpm		kg
RLS4A	+	+	0.5000	1.3125	0.3750	12.700	33.337	9.925	6.180	20 000	26 000	0.04
RLS 5	+	+	0.6250	1.5625	0.4375	15.875	39.688	11.112	9.560	17 000	20 000	0.06
RLS 6	+	+	0.7500	1.8750	0.5625	19.050	47.625	14.288	12.700	15 000	18 000	0.12
RLS 7	+	+	0.8750	2.0000	0.5625	22.225	50.800	14.288	15.100	14 000	17 000	0.12
RLS 8	+	+	1.0000	2.2500	0.6250	25.400	57.150	15.875	17.800	11 000	14 000	0.17
RLS 9	+	+	1.1250	2.5000	0.6250	28.575	63.500	15.875	19.500	10 000	13 000	0.22
RLS 10	+	+	1.2500	2.7500	0.6875	31.750	69.850	17.462	22.500	9 500	12 000	0.29
RLS 11			1.3750	3.0000	0.6875	34.925	76.200	17.462	25.500	9 000	11 000	0.35
RLS 12			1.5000	3.2500	0.7500	38.100	82.550	19.050	29.100	8 500	10 000	0.44
RLS 13			1.6250	3.5000	0.7500	41.275	88.900	19.050	32.500	7 500	9 000	0.51
RLS 14			1.7500	3.7500	0.8125	44.450	95.250	20.638	35.100	7 000	8 500	0.66
RLS 15			1.8750	4.0000	0.8125	47.625	101.600	20.638	43.600	6 300	7 500	0.74
RLS 16			2.0000	4.0000	0.8125	50.800	101.600	20.638	43.600	6 300	7 500	0.70
RLS 18			2.2500	4.5000	0.8750	57.150	114.300	22.225	52.700	6 000	7 000	0.96
RLS 20			2.5000	5.0000	0.9375	63.500	127.000	23.812	62.400	5 000	6 000	1.26

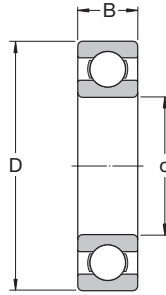
DO NOT USE IN NEW APPLICATIONS

Single row deep groove ball bearings

Series RLS

d 2.7500 - 6.0000 mm

d 69.850 - 152.400 in

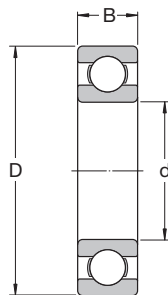


Bearing Number	Principal Dimensions			Principal Dimensions			Basic dynamic load rating C	Speed ratings		Mass kg
	d	D	B	d	D	B		Lubrication grease	oil	
	in			mm			kN	rpm	rpm	
RLS 22	2.7500	5.2500	0.9375	69.850	133.350	23.812	66.300	4 800	5 600	1.37
RLS 24	3.0000	5.7500	1.0625	76.200	146.050	26.988	72.800	4 500	5 300	1.85
RLS 26	3.2500	6.0000	1.0625	82.550	152.400	26.988	83.200	4 000	4 800	1.93
RLS 28	3.5000	6.5000	1.1250	88.900	165.100	28.575	95.600	3 800	4 500	2.38
RLS 30	3.7500	6.7500	1.1250	95.250	171.450	28.575	101.000	3 600	4 300	2.51
RLS 32	4.0000	7.2500	1.2500	101.600	184.150	31.750	108.000	3 400	4 000	3.25
RLS 34	4.2500	7.5000	1.2500	107.950	133.350	31.750	124.000	3 200	3 800	3.92
RLS 36	4.5000	8.0000	1.3125	114.300	203.200	33.338	130.000	3 000	3 600	4.76
RLS 38	4.7500	8.2500	1.3125	120.850	209.550	33.338	138.000	2 800	3 400	5.0
RLS 40	5.0000	9.0000	1.3750	127.000	228.600	34.925	148.000	2 600	3 200	6.5
RLS 44	5.5000	9.5000	1.3750	139.700	241.300	34.925	156.000	2 400	3 000	6.9
RLS 48	6.0000	10.5000	1.5625	152.400	266.700	39.688	172.000	2 000	2 600	9.8



Single row deep groove ball bearings Series RMS

d 0.5000 - 5.5000 mm
d 12.700 - 139.700 in



Bearing Number	Principal Dimensions			Principal Dimensions			Basic dynamic load rating C	Speed ratings		Mass kg
	d	D	B	d	D	B		Lubrication grease	oil	
	in			mm			kN	rpm	rpm	
RMS 4	0.5000	1.6250	0.6250	12.700	41.275	15.875	11.400	18 000	22 000	0.10
RMS 5	0.6250	1.8125	0.6250	15.875	46.038	15.875	13.800	16 000	19 000	0.12
RMS 6	0.7500	2.0000	0.6875	19.050	50.800	17.462	15.900	14 000	17 000	0.16
RMS 7	0.8750	2.2500	0.6875	22.225	57.150	17.462	18.600	12 000	15 000	0.21
RMS 8	1.0000	2.5000	0.7500	25.400	63.500	19.050	21.200	10 000	13 000	0.27
RMS 9	1.1250	2.8125	0.8125	28.575	71.438	20.638	27.000	9 500	12 000	0.37
RMS 10	1.2500	3.1250	0.8750	31.750	79.375	22.225	33.200	9 000	11 000	0.49
RMS 11	1.3750	3.5000	0.8750	34.925	88.900	22.225	40.300	8 000	9 500	0.63
RMS 12	1.5000	3.7500	0.9375	38.100	95.250	23.812	44.200	7 500	9 000	0.79
RMS 13	1.6250	4.0000	0.9375	41.275	101.600	23.812	52.700	6 700	8 000	0.91
RMS 14	1.7500	4.2500	1.0625	44.450	107.950	26.988	57.200	6 300	7 500	1.13
RMS 15	1.8750	4.5000	1.0625	47.625	114.300	26.988	66.300	6 000	7 000	1.24
RMS 16	2.0000	4.5000	1.0625	50.800	114.300	26.988	66.300	6 000	7 000	1.19
RMS 18	2.2500	5.0000	1.2500	57.150	127.000	31.750	76.100	5 300	6 300	1.70
RMS 20	2.5000	5.0000	1.2500	63.500	139.700	31.750	92.300	4 800	5 600	2.05
RMS 22	2.7500	6.2500	1.3750	69.850	158.750	34.925	104.000	4 300	5 000	2.97
RMS 24	3.0000	7.0000	1.5625	76.200	177.800	39.688	124.000	3 800	4 500	4.41
RMS 26	3.2500	7.5000	1.5625	82.550	190.500	39.688	133.000	3 400	4 000	5.00
RMS 28	3.5000	8.1250	1.7500	88.900	206.375	44.450	153.000	3 200	3 800	6.50
RMS 30	3.7500	8.2500	1.7500	95.250	209.550	44.450	153.000	3 200	3 800	6.50
RMS 32	4.0000	8.5000	1.7500	101.600	215.900	44.450	163.000	3 000	3 600	8.10
RMS 34	4.2500	8.7500	1.7500	107.950	222.250	44.450	174.000	2 800	3 400	8.50
RMS 36	4.5000	9.3750	2.0000	114.300	238.125	50.800	186.000	2 600	3 200	11.70
RMS 38	4.7500	10.0000	2.0000	120.850	254.000	50.800	195.000	2 400	3 000	12.70
RMS 40	5.0000	10.0000	2.0000	127.000	254.000	50.800	195.000	2 400	3 000	12.10
RMS 44 M	5.5000	11.0000	2.0000	139.700	279.400	50.800	212.000	2 000	2 600	-

MRC Cartridge-type bearings types SFFC, SZZC, SLLC

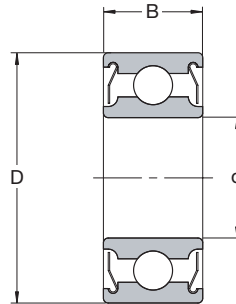
d 8 - 100 mm

d 0.3150 - 3.9370 in

Cartridge-type bearings have an extra large grease chamber packed with high quality lubricant. For applications where space for a lubrication system is limited or conditions demand a larger grease supply inside bearing.

Bearings designated SFFC have non-removable metal shields.

Many sizes are available with removable shields (SLLC) or synthetic rubber seals (SZZC).

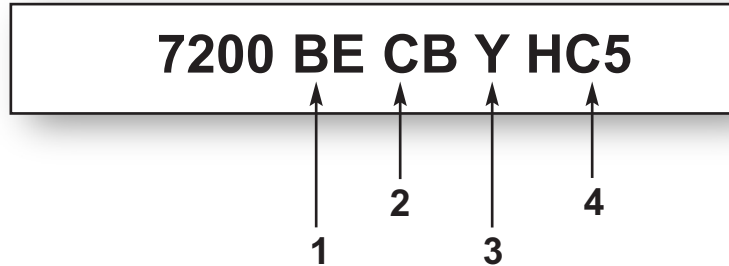


MRC Bearing Number	Bore		Outside Width		Bore		Outside Width		Basic Radial Load Rating		Speed Ratings ¹⁾		Single and Double Sealed Grease
	d	D	B	d	D	B	Dynamic ²⁾	Static	Open and Shielded Grease	Oil	rpm		
	mm			in			kN	kN	rpm	rpm	rpm		
38-FFC	8	22	11.99	0.3150	0.8661	0.472	3.25	1.37	36 000	43 000	23 000		
200-SFFC	10	30	14.29	0.3937	1.1811	⁹ / ₁₆	5.07	2.40	24 000	30 000	17 000		
201-SFFC	12	32	15.88	0.4724	1.2598	⁵ / ₈	6.76	3.00	22 000	28 000	15 000		
202-SFFC	15	35	15.88	0.5906	1.3780	⁵ / ₈	7.61	3.75	19 000	24 000	13 000		
203-SFFC	17	40	17.46	0.6693	1.5748	¹¹ / ₁₆	9.56	4.50	17 000	20 000	12 000		
204-SFFC	20	47	20.64	0.7874	1.8504	¹³ / ₁₆	13.00	6.70	15 000	18 000	10 000		
205-SFFC	25	52	20.64	0.9843	2.0472	¹³ / ₁₆	15.10	8.15	12 000	15 000	8 500		
206-SFFC	30	62	23.81	1.1811	2.4409	¹⁵ / ₁₆	20.80	11.40	10 000	13 000	7 500		
207-SFFC	35	72	26.99	1.3780	2.8346	¹¹ / ₁₆	26.50	15.30	9 000	11 000	6 300		
208-SFFC	40	80	30.16	1.5748	3.1496	¹³ / ₁₆	32.50	20.00	8 500	10 000	5 600		
209-SFFC	45	85	30.16	1.7717	3.3465	¹³ / ₁₆	36.40	22.80	7 500	9 000	5 000		
210-SFFC	50	90	30.16	1.9685	3.5433	¹³ / ₁₆	35.10	23.20	7 000	8 500	4 800		
211-SFFC	55	100	33.34	2.1654	3.9370	¹⁵ / ₁₆	39.70	29.00	6 300	7 500	4 300		
213-SFFC	65	120	38.10	2.5591	4.7244	¹¹ / ₂	62.40	44.00	5 300	6 300	3 600		
214-SFFC	70	125	39.69	2.7559	4.9213	¹⁹ / ₁₆	62.40	44.00	5 000	6 000	3 400		
216-SFFC	80	140	44.45	3.1496	5.5118	¹³ / ₄	78.00	53.00	4 500	5 300	3 000		
304-SFFC	20	52	22.23	0.7874	2.0472	⁷ / ₈	15.90	7.80	13 000	16 000	9 500		
305-SFFC	25	62	25.40	0.9843	2.4409	1	21.00	11.00	11 000	14 000	7 500		
306-SFFC	30	72	30.16	1.1811	2.8346	¹³ / ₁₆	29.60	16.60	9 000	11 000	6 300		
307-SFFC	35	80	34.93	1.3780	3.1496	¹³ / ₈	36.40	20.00	8 500	10 000	6 000		
308-SFFC	40	90	36.51	1.5748	3.5433	¹⁷ / ₁₆	44.20	26.00	7 500	9 000	5 000		
309-SFFC	45	100	39.69	1.7717	3.9370	¹⁹ / ₁₆	52.00	30.00	6 700	8 000	4 500		
310-SFFC	50	110	44.45	1.9685	4.3307	¹³ / ₄	61.80	38.00	6 300	7 500	4 300		
311-SFFC	55	120	49.21	2.1654	4.7244	¹¹⁵ / ₁₆	71.50	45.00	5 600	6 700	3 800		
312-SFFC	60	130	53.98	2.3622	5.1181	²¹ / ₈	81.90	52.00	5 000	6 000	3 400		
313-SFFC	65	140	58.74	2.5591	5.5118	²⁵ / ₁₆	92.30	60.00	4 800	5 600	3 200		
314-SFFC	70	150	63.50	2.7559	5.9055	²¹ / ₂	104.00	68.00	4 500	5 300	3 000		
315-SFFC	75	160	68.26	2.9528	6.2992	²¹¹ / ₁₆	124.00	85.00	4 300	5 000	2 800		
316-SFFC	80	170	68.26	3.1496	6.6929	²¹¹ / ₁₆	133.00	95.00	3 800	4 500	2 600		
317-SFFC	85	180	73.03	3.3465	7.0866	²⁷ / ₈	133.00	96.50	3 600	4 300	2 400		
318-SFFC	90	190	73.03	3.5433	7.4803	²⁷ / ₈	143.00	108.00	3 400	4 000	2 400		
320-SFFC	100	215	82.55	3.9370	8.4646	³¹ / ₄	182.00	150.00	3 000	3 600	2 100		

¹⁾ Listed values are for pressed steel or polyamide cage, ABEC-1.
The values have been determined through historical application and practice.
²⁾ Rating for one million revolutions or 500 hours at 33 1/3 RPM.



Angular Contact Ball Bearings



1. Design	2. Clearance	3. Cage Design
A Non-filling slot (Conrad type - 3000, 5000 series) MRC. C.	C2 Axial clearance tighter than normal (3000,5000 and QJ series)	J Pressed steel cage, ball centred.
B 40° contact angle	C3 Axial clearance greater than normal (3000, 5000 and QJ series)	M Machined brass cage, ball centred
BE 40° contact angle, high capacity, all ISO corners	7000 Series clearance*	P Fibreglass reinforced polyamide, ball centred
D Split inner ring (3300 series)	CA Modified for duplex mounting with axial clearance < normal	Y Press brass cage
D MRC 29° contact angle, 1/2 pair, duplex	CB Modified for duplex mounting with normal axial clearance	4. Special Features
DU MRC 29° contact angle and ground for duplex mounting and zero preload/ clearance	CC Modified for duplex mounting with axial clearance > normal	HC4 Full ceramic bearing
E Filling slot (Max type - 5000 series) MRC. M.	CN Normal clearance (3000, 5000 series) no symbol shown	HC5 Ceramic ball set
FF 2 Shields on MRC DRACBB	GA Modified for duplex mounting with light preload	5. Lubrication
NR Snap ring (3300,5000 series)	GB Modified for duplex mounting with medium preload	MT33 Medium temperature Lithium grease, 74 cSt @ 40°C, range -30°C to + 120°C
N2 Locating slot (QJ Series)	GC Modified for duplex mounting with heavy preload	GJN Di-urea hi-temp, 115cSt @ 40°C, range -40°C to +150°C
R MRC single row with 15° contact angle	G... Special preload, value in daN	
RD MRC single row for duplex mounting and 15° contact angle		
2RS1 Rubber seals on both sides		
ZZ 2 rubber seals on MRC DRACBB		
2Z Metal shields on both sides (5000 series)		

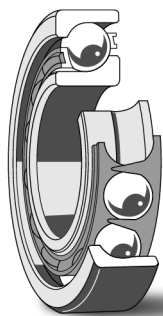
*If the above symbols from CA to G.. are not shown the bearing is not modified for duplex mounting

Angular contact ball bearings

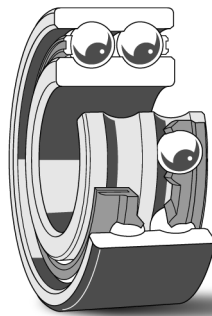
Technical Features

	Single Row ACBB	Double Row ACBB	Four-Point Contact ACBB
Boundary Dimensions	In accordance with ISO 15-1998	In accordance with ISO 15-1998	In accordance with ISO 15-1998
Tolerances	ABEC 3 (P6) SKF Explorer P5 running P6 boundary	ABEC 3 (P6)*	ABEC 3 (P6)
Heat Stabilization	257°F (125°C) SKF Explorer 150°C	257°F (125°C) SKF Explorer 150°C	302°F (150°C)
Misalignment	None - contact SKF	None - contact SKF	None - contact SKF
Cage Materials	Polyamide (P)* Machined Brass (M)* Pressed Steel ¹⁾ J Pressed brass ¹⁾ (Y)	Polyamide (TN9) Limited sizes, pressed steel.	Machined Brass (M, MA)
Axial Load - max	1.4 x C ₀ for single or tandem mounted bearings 0.7 x C ₀ for duplex mounting	0.7 x C ₀ Conrad F _a /F _r ≤ 0.3	0.7 x C ₀
Seals, shields	Not available	2RS1- Nitrile rubber 2Z - Steel shields	Not available

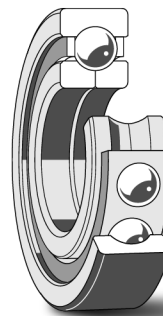
*SKF Explorer types
¹⁾ Non-Explorer



**Single Row
Angular Contact
Ball Bearing**
(data tables on page 78)



**Double Row
Angular Contact
Ball Bearing**
(data tables on page 91)



**Four-Point
Angular Contact
Ball Bearing**
(data tables on page 95)

Internal Clearance

Axial internal clearance single row angular contact ball bearings

Internal clearance in a single row angular contact ball bearing is only obtained after mounting and is dependent on adjustment against a second bearing that provides axial location in the opposite direction.

Bearings for universal pairing (suffix CB) are the standard SKF bearings for paired mounting in random order (back-to-back, face-to-face or tandem). Bearings can be supplied with smaller axial internal clearance (suffix CA) or larger (suffix CC) or with preload (suffixes GA, GB and GC) for universal pairing.

Bearings identified by suffix CA, CB or CC can be mounted immediately adjacent to each other in any order and two or more bearings may be used. Bearings with preload of the GA, GB and GC designs can only be arranged in pairs, otherwise the preload will increase.

The values of axial internal clearance for the classes CA, CB and CC can be found in **table 1**. They are valid for bearings arranged back-to-back or face-to-face before mounting and under zero measuring load. Preload values for classes GA, GB and GC are given in **table 1a**. **Table 2** shows a conversion from the old preload suffixes to the current suffix.

Bore diameter		Axial internal clearance											
		CA				CB				CC			
d	over incl.	min	max	min	max	min	max	min	max	min	max	min	max
mm		µm		in		µm		in		µm		in	
-	10	4	12	0.0002	0.0005	14	22	0.0006	0.0009	22	30	0.0009	0.0012
10	18	5	13	0.0002	0.0005	15	23	0.0006	0.0009	24	32	0.0009	0.0013
18	30	7	15	0.0003	0.0006	18	26	0.0007	0.0010	32	40	0.0013	0.0016
30	50	9	17	0.0004	0.0007	22	30	0.0009	0.0012	40	48	0.0016	0.0019
50	80	11	23	0.0004	0.0009	26	38	0.0010	0.0015	48	60	0.0019	0.0024
80	120	14	26	0.0006	0.0010	32	44	0.0013	0.0017	55	67	0.0022	0.0026
120	180	17	29	0.0007	0.0011	35	47	0.0014	0.0019	62	74	0.0024	0.0029
180	250	21	37	0.0008	0.0015	45	61	0.0018	0.0024	74	90	0.0029	0.0035
250	315	26	42	0.0010	0.0017	52	68	0.0020	0.0027	90	106	0.0035	0.0042

Radial clearance [≈] 0.85 axial clearance.

Bore diameter		Preload																					
		GA				GB				GC													
d	over incl.	min	max	min	max	max	max	min	max	min	max	min	max	min	max	min	max						
mm		µm		in		N		lbf		µm		in		N		lbf							
10	18	4	-4	0.0002	-0.0002	80	18	-2	-10	-0.0001	-0.0004	30	330	7	74	-8	-16	-0.0003	-0.0006	230	660	52	149
18	30	4	-4	0.0002	-0.0002	120	27	-2	-10	-0.0001	-0.0004	40	480	9	108	-8	-16	-0.0003	-0.0006	340	970	76	218
30	50	4	-4	0.0002	-0.0002	160	36	-2	-10	-0.0001	-0.0004	60	630	13	142	-8	-16	-0.0003	-0.0006	450	1 280	101	288
50	80	6	-6	0.0002	-0.0002	380	86	-3	-15	-0.0001	-0.0006	140	1 500	31	338	-12	-24	-0.0005	-0.0009	1 080	3 050	243	686
80	120	6	-6	0.0002	-0.0002	410	92	-3	-15	-0.0001	-0.0006	150	1 600	34	360	-12	-24	-0.0005	-0.0009	1 150	3 250	259	731
120	180	6	-6	0.0002	-0.0002	540	122	-3	-15	-0.0001	-0.0006	200	2 150	45	484	-12	-24	-0.0005	-0.0009	1 500	4 300	337	968
180	250	8	-8	0.0003	-0.0003	940	212	-4	-20	-0.0002	-0.0008	330	3 700	74	833	-16	-32	-0.0006	-0.0013	2 650	7 500	596	1 688
250	315	8	-8	0.0003	-0.0003	1 080	243	-4	-20	-0.0002	-0.0008	380	4 250	85	956	-16	-32	-0.0006	-0.0013	3 000	8 600	674	1 935

Angular contact ball bearings

Table 2 Old/new preload designation interchange, single row angular contact ball bearings 72xx, 73xx and 74xx series

Bore size	Bore diameter (mm)	Old preload suffix					
		G02	G05	G1*	G2	G3	G5
00	10	GB	GB	GC	–	–	–
01	12	GB	GB	GC	–	–	–
02	15	GB	GB	GC	–	–	–
03	17	GB	GB	GC	–	–	–
04	20	GA	GB	GC	–	–	–
06	30	GA	GB	GC	–	–	–
07	35	GA	GB	GB	GC	–	–
08*	40*	GA	GB	GB*	GC	–	–
09	45	GA	GB	GB	GC	–	–
10	50	GA	GB	GB	GC	–	–
11	55	GA	GA	GB	GB	GB	GC
12	60	GA	GA	GB	GB	GB	GC
13	65	GA	GA	GB	GB	GB	GC
14	70	GA	GA	GB	GB	GB	GC
15	75	GA	GA	GB	GB	GB	GC
16	80	GA	GA	GB	GB	GB	GC
17	85	GA	GA	GB	GB	GB	GC
18	90	GA	GA	GB	GB	GB	GC
19	95	GA	GA	GB	GB	GB	GC
20	100	GA	GA	GB	GB	GB	GC
21	105	GA	GA	GB	GB	GB	GC
22	110	GA	GA	GB	GB	GB	GC
24	120	GA	GA	GB	GB	GB	GC
26	130	GA	GA	GB	GB	GB	GC
28	140	GA	GA	GB	GB	GB	GC
30	150	GA	GA	GB	GB	GB	GC
32	160	GA	GA	GB	GB	GB	GC
34	170	GA	GA	GB	GB	GB	GC
36	180	GA	GA	GB	GB	GB	GC

***Example:**

7308 BEAG1Y = 08 bore size,
40 mm bore diameter
G1 (100 lbs.) preload
Replace with: 7308 BEGBY

Table 3 Axial internal clearance of Conrad type and filling slot double row angular contact ball bearings 32, 33, 52, 53, 54 series and double row cam followers

Bore diameter d over incl. mm	Axial internal clearance															
	C2		Normal		C3		C4									
	min µm	max	min in	max	min µm	max	min in	max	min µm	max	min in	max	min µm	max	min in	max
- 10	1	11	0.0000	0.0004	5	21	0.0002	0.0008	12	28	0.0005	0.0011	40	60	0.0016	0.0024
10 18	1	12	0.0000	0.0005	6	23	0.0002	0.0009	13	31	0.0005	0.0012	42	64	0.0017	0.0025
18 24	2	14	0.0001	0.0006	7	25	0.0003	0.0010	16	34	0.0006	0.0013	43	69	0.0017	0.0027
24 30	2	15	0.0001	0.0006	8	27	0.0003	0.0011	18	37	0.0007	0.0015	45	75	0.0018	0.0030
30 40	2	16	0.0001	0.0006	9	29	0.0004	0.0011	21	40	0.0008	0.0016	48	84	0.0019	0.0033
40 50	2	18	0.0001	0.0007	11	33	0.0004	0.0013	23	44	0.0009	0.0017	51	90	0.0020	0.0035
50 65	3	22	0.0001	0.0009	13	36	0.0005	0.0014	26	48	0.0010	0.0019	55	96	0.0022	0.0038
65 80	3	24	0.0001	0.0009	15	40	0.0006	0.0016	30	54	0.0012	0.0021	61	106	0.0024	0.0042
80 100	3	26	0.0001	0.0010	18	46	0.0007	0.0018	35	63	0.0014	0.0025	70	123	0.0028	0.0048
100 110	4	30	0.0002	0.0012	22	53	0.0009	0.0021	42	73	0.0017	0.0029	80	148	0.0031	0.0058

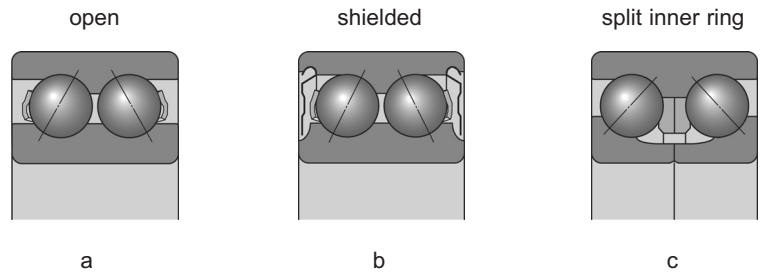
Table 4 Axial internal clearance of four-point contact ball bearings

Bore diameter d				Axial internal clearance															
				C2				Normal				C3				C4			
over mm	incl. in	over in	incl. 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
10	17	0.3937	0.6693	15	55	0.0006	0.0022	45	85	0.0018	0.0033	75	125	0.0030	0.0049	115	165	0.0045	0.0065
18	40	0.6693	1.5748	26	66	0.0010	0.0026	56	106	0.0022	0.0042	96	146	0.0038	0.0057	136	186	0.0054	0.0073
40	60	1.5748	2.3622	36	86	0.0014	0.0034	76	126	0.0030	0.0050	116	166	0.0046	0.0065	156	206	0.0061	0.0081
60	80	2.3622	3.1496	46	96	0.0018	0.0038	86	136	0.0034	0.0054	126	176	0.0050	0.0069	166	226	0.0065	0.0089
80	100	3.1496	3.9370	56	106	0.0022	0.0042	96	156	0.0038	0.0061	136	196	0.0054	0.0077	186	246	0.0073	0.0097
100	140	3.9370	5.5118	66	126	0.0026	0.005	116	176	0.0046	0.0069	156	216	0.0061	0.0085	206	266	0.0081	0.0105
140	180	5.5118	7.0866	76	156	0.0030	0.0061	136	196	0.0054	0.0077	176	246	0.0069	0.0097	226	296	0.0089	0.0116
180	220	7.0866	8.6614	96	176	0.0038	0.0069	156	226	0.0061	0.0089	206	276	0.0081	0.0109	256	326	0.0101	0.0128

Double row angular contact ball bearings

Basic design bearings in the 32 A and 33 A series shown in the product table as well as the corresponding sealed bearings to 2Z and 2RS1 design are identical to the corresponding bearings in the 52 and 53 series for the North American market. They have the same performance characteristics and dimensional features (except for the width of size 5200). However, the sealed bearings are filled with a different grease. Bearings in the 52 and 53 series use a mineral oil based high-temperature grease with di-urea thickener. The operating temperature range of this grease is -30 to +175°C. The base oil viscosity is 115 mm²/s at 40°C and 12 mm²/s at 100°C.

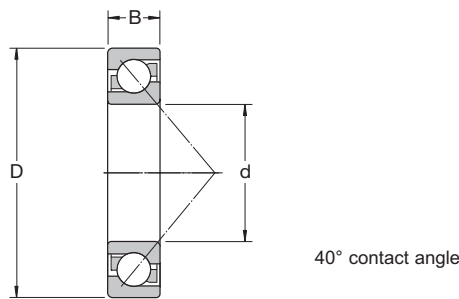
For 3200 and 3300 series, the grease has a lithium thickener with a mineral oil base. The operating temperature is -30°C to +120°C, with a base oil viscosity of 74mm²/s at 40°C



Single row angular contact ball bearings

d 10 - 35 mm

d 0.394 - 1.378 in



Principal dimensions						Basic load ratings		Fatigue load limit	Speed ratings		Mass	Designations	
d	D	B	d	D	B	C	C ₀	P _u	Reference speed	Limiting speed	kg	Universally matchable bearing	Basic design bearing
mm			in			kN		kN	r/min			–	
10	30	9	0.394	1.181	0.354	7.02	3.35	0.14	30 000	30 000	0.03	7200 BECBP	7200 BEP
12	32 37	10 12	0.472	1.260 1.457	0.394 0.472	7.61 10.6	3.8 5	0.16 0.208	26 000 24 000	26 000 24 000	0.036 0.063	7201 BECBP –	7201 BEP 7301 BEP
15	35 42	11 13	0.591	1.378 1.654	0.433 0.512	8.84 13	4.8 6.7	0.204 0.28	24 000 20 000	24 000 20 000	0.045 0.081	7202 BECBP 7302 BECBP	7202 BEP 7302 BEP
17	40 40 40 40 47	12 12 12 12 14	0.669	1.575 1.575 1.575 1.575 1.850	0.472 0.472 0.472 0.472 0.551	11 10.4 11.1 11 15.9	5.85 5.5 6.1 5.85 8.3	0.25 0.236 0.26 0.25 0.355	22 000 20 000 20 000 22 000 19 000	22 000 20 000 20 000 22 000 19 000	0.064 0.064 0.064 0.07 0.11	* 7203 BECBP – – * 7203 BECBM 7303 BECBP	– 7203 BEP 7203 BEY – 7303 BEP
20	47 47 47 52 52 52 52	14 14 14 15 15 15 15	0.787	1.850 1.850 1.850 2.047 2.047 2.047 2.047	0.551 0.551 0.551 0.591 0.591 0.591 0.591	14 14 13.3 19 17.4 19 19	8.3 8.3 7.65 10 9.5 10.4 10	0.355 0.355 0.325 0.425 0.4 0.44 0.425	18 000 18 000 18 000 18 000 16 000 16 000 18 000	18 000 18 000 19 000 18 000 16 000 16 000 18 000	0.11 0.11 0.11 0.14 0.14 0.15 0.15	7204 BECBP 7204 BECBY 7204 BECBM * 7304 BECBP – 7304 BECBY * 7304 BECBM	7204 BEP – – – 7304 BEP 7304 BEY –
25	52 52 52 52 62 62 62 62	15 15 15 15 17 17 17 17	0.984	2.047 2.047 2.047 2.047 2.441 2.441 2.441 2.441	0.591 0.591 0.591 0.591 0.669 0.669 0.669 0.669	15.6 14.8 15.6 15.6 26.5 24.2 26 26.5	10 9.3 10.2 10 15.3 14 15.6 15.3	0.43 0.4 0.43 0.43 0.655 0.6 0.655 0.655	17 000 15 000 15 000 17 000 15 000 14 000 14 000 15 000	17 000 15 000 15 000 17 000 15 000 14 000 14 000 15 000	0.13 0.13 0.13 0.14 0.23 0.23 0.24 0.24	* 7205 BECBP – 7205 BECBY * 7205 BECBM * 7305 BECBP – 7305 BECBY * 7305 BECBM	– 7205 BEP 7205 BEY – – 7305 BEP 7305 BEY –
30	62 62 62 62 72 72 72 72	16 16 16 16 19 19 19 19	1.181	2.441 2.441 2.441 2.441 2.835 2.835 2.835 2.835	0.630 0.630 0.630 0.630 0.748 0.748 0.748 0.748	24 22.5 23.8 24 35.5 32.5 34.5 35.5	15.6 14.3 15.6 15.6 21.2 19.3 21.2 21.2	0.655 0.61 0.655 0.655 0.9 0.815 0.9 0.9	14 000 13 000 13 000 14 000 13 000 12 000 12 000 13 000	14 000 13 000 13 000 14 000 13 000 12 000 12 000 13 000	0.19 0.19 0.21 0.21 0.33 0.33 0.37 0.37	* 7206 BECBP – 7206 BECBY * 7206 BECBM * 7306 BECBP – 7306 BECBY * 7306 BECBM	– 7206 BEP 7206 BEY – – 7306 BEP 7306 BEY –
35	72 72 72 72 80 80 80 80	17 17 17 17 21 21 21 21	1.378	2.835 2.835 2.835 2.835 3.150 3.150 3.150 3.150	0.669 0.669 0.669 0.669 0.827 0.827 0.827 0.827	31 29.1 30.7 31 41.5 39 39 41.5	20.8 19 20.8 20.8 26.5 24.5 24.5 26.5	0.88 0.815 0.88 0.88 1.14 1.04 1.04 1.14	12 000 11 000 11 000 11 000 11 000 10 000 10 000 11 000	12 000 11 000 11 000 12 000 11 000 10 000 10 000 11 000	0.28 0.28 0.3 0.3 0.45 0.45 0.49 0.49	* 7207 BECBP – 7207 BECBY * 7207 BECBM * 7307 BECBP – 7307 BECBY * 7307 BECBM	– 7207 BEP 7207 BEY – – 7307 BEP 7307 BEY –

* SKF Explorer bearing

Single row angular contact ball bearings

d 40 - 60 mm

d 1.575 - 2.362 in



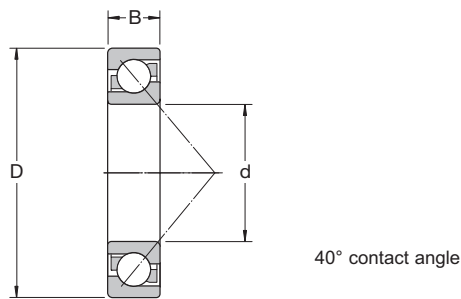
Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass kg	Designations	
d	D	B	d	D	B	dynamic C	static C ₀		Reference speed	Limiting speed		Universally matchable bearing	Basic design bearing
			in				kN	kN	r/min				
40	80	18	1.575	3.150	0.709	36.5	26	1.1	11 000	11 000	0.37	* 7208 BECBP	–
	80	18		3.150	0.709	34.5	24	1.02	10 000	10 000	0.37	–	7208 BEP
	80	18	3.150	0.709	36.4	26	1.1	10 000	10 000	0.38	7208 BECBY	7208 BEY	
	80	18	3.150	0.709	36.5	26	1.1	11 000	11 000	0.39	* 7208 BECBM	–	
	80	18	3.150	0.709	34.5	24	1.02	10 000	10 000	0.39	–	7208 BEM	
	90	23	3.543	0.906	50	32.5	1.37	10 000	10 000	0.61	* 7308 BECBP	–	
	90	23	3.543	0.906	46.2	30.5	1.13	9 000	9 000	0.61	–	7308 BEP	
	90	23	3.543	0.906	49.4	33.5	1.4	9 000	9 000	0.64	7308 BECBY	7308 BEY	
	90	23	3.543	0.906	50	32.5	1.37	10 000	10 000	0.68	* 7308 BECBM	–	
45	85	19	1.772	3.346	0.748	38	28.5	1.22	10 000	10 000	0.42	* 7209 BECBP	–
	85	19		3.346	0.748	35.8	26	1.12	9 000	9 000	0.42	–	7209 BEP
	85	19	3.346	0.748	37.7	28	1.2	9 000	9 000	0.43	7209 BECBY	7209 BEY	
	85	19	3.346	0.748	38	28.5	1.22	10 000	10 000	0.44	* 7209 BECBM	–	
	100	25	3.937	0.984	61	40.5	1.73	9 000	9 000	0.82	* 7309 BECBP	–	
	100	25	3.937	0.984	55.9	37.5	1.73	8 000	8 000	0.82	–	7309 BEP	
	100	25	3.937	0.984	60.5	41.5	1.73	8 000	8 000	0.86	7309 BECBY	7309 BEY	
	100	25	3.937	0.984	61	40.5	1.73	9 000	9 000	0.9	* 7309 BECBM	–	
50	90	20	1.969	3.543	0.787	40	31	1.32	9 000	9 000	0.47	* 7210 BECBP	–
	90	20		3.543	0.787	37.7	28.5	1.22	8 500	8 500	0.47	–	7210 BEP
	90	20	3.543	0.787	39	30.5	1.29	8 500	8 500	0.47	7210 BECBY	7210 BEY	
	90	20	3.543	0.787	40	31	1.32	9 000	9 000	0.51	* 7210 BECBM	–	
	110	27	4.331	1.063	75	51	2.16	8 000	8 000	1.04	* 7310 BECBP	–	
	110	27	4.331	1.063	68.9	47.5	2	7 500	7 500	1.04	–	7310 BEP	
	110	27	4.331	1.063	74.1	51	2.2	7 500	7 500	1.13	7310 BECBY	7310 BEY	
	110	27	4.331	1.063	75	51	2.16	8 000	8 000	1.16	* 7310 BECBM	–	
55	100	21	2.165	3.937	0.827	48.8	38	1.63	7 500	7 500	0.62	7211 BECBP	7211 BEP
	100	21		3.937	0.827	48.8	38	1.63	7 500	7 500	0.62	7211 BECBY	7211 BEY
	100	21	3.937	0.827	46.2	36	1.53	7 500	8 000	0.66	7211 BECBM	–	
55	120	29	2.165	4.724	1.142	85	60	2.55	7 000	7 000	1.34	* 7311 BECBP	–
	120	29		4.724	1.142	79.3	55	2.32	6 700	6 700	1.34	–	7311 BEP
	120	29	4.724	1.142	85.2	60	2.55	6 700	6 700	1.48	7311 BECBY	7311 BEY	
	120	29	4.724	1.142	85	60	2.55	7 000	7 000	1.49	* 7311 BECBM	–	
60	110	22	2.362	4.331	0.866	61	50	2.12	7 500	7 500	0.78	* 7212 BECBP	–
	110	22		4.331	0.866	57.2	45.5	1.93	7 000	7 000	0.78	–	7212 BEP
	110	22	4.331	0.866	57.2	45.5	1.93	7 000	7 000	0.83	7212 BECBY	7212 BEY	
	110	22	4.331	0.866	61	50	2.12	7 500	7 500	0.85	* 7212 BECBM	–	
	130	31	5.118	1.220	104	76.5	3.2	6 700	6 700	1.71	* 7312 BECBP	–	
	130	31	5.118	1.220	95.6	69.5	3	6 000	6 000	1.71	–	7312 BEP	
	130	31	5.118	1.220	95.6	69.5	3	6 000	6 000	1.75	7312 BECBY	7312 BEY	
	130	31	5.118	1.220	104	76.5	3.2	6 700	6 700	1.88	* 7312 BECBM	–	
	130	31	5.118	1.220	95.6	69.5	3	6 000	6 300	1.88	–	7312 BEM	

* SKF Explorer bearing

Single row angular contact ball bearings

d 65 - 90 mm

d 2.559 - 3.543 in



Principal dimensions						Basic load ratings		Fatigue load limit	Speed ratings		Mass	Designations		
d	D	B	d	D	B	C	C ₀	P _u	Reference speed	Limiting speed	kg	Universally matchable bearing	Basic design bearing	
			in				kN			kN	r/min			
			mm						kN			kg		
65	120	23	2.559	4.724	0.906	66.3	54	2.28	6 300	6 300	1	7213 BECBP	7213 BEP	
	120	23		4.724	0.906	66.3	54	2.28	6 300	6 300	1	7213 BECBY	7213 BEY	
	120	23	4.724	0.906	66.3	54	2.28	6 300	6 700	1.1	7213 BECBM	–		
	140	33	5.512	1.299	116	86.5	3.65	6 300	6 300	2.1	* 7313 BECBP	–		
	140	33	5.512	1.299	108	80	3.35	5 600	5 600	2.15	7313 BECBY	7313 BEP		
	140	33	5.512	1.299	116	86.5	3.65	6 300	6 300	2.31	* 7313 BECBM	–		
70	125	24	2.756	4.921	0.945	75	64	2.7	6 300	6 300	1.1	* 7214 BECBP	–	
	125	24		4.921	0.945	71.5	60	2.5	6 000	6 000	1.1	7214 BECBY	7214 BEP	
	125	24	4.921	0.945	72	60	2.55	6 300	6 300	1.18	* 7214 BECBM	–		
	150	35	5.906	1.378	127	98	3.9	5 600	5 600	2.55	* 7314 BECBP	–		
	150	35	5.906	1.378	119	90	3.65	5 300	5 300	2.67	7314 BECBY	7314 BEP		
	150	35	5.906	1.378	127	98	3.9	5 600	5 600	2.83	* 7314 BECBM	–		
75	130	25	2.953	5.118	0.984	72.8	64	2.65	5 600	5 600	1.18	7215 BECBP	7215 BEP	
	130	25		5.118	0.984	72.8	64	2.65	5 600	5 600	1.26	7215 BECBY	–	
	130	25	5.118	0.984	70.2	60	2.5	5 600	6 000	1.29	7215 BECBM	–		
	160	37	6.299	1.457	132	104	4.15	5 300	5 300	3.06	* 7315 BECBP	–		
	160	37	6.299	1.457	125	98	3.8	5 000	5 000	3.06	–	7315 BEP		
	160	37	6.299	1.457	133	106	4.15	5 000	5 000	3.2	7315 BECBY	–		
	160	37	6.299	1.457	132	104	4.15	5 300	5 300	3.26	* 7315 BECBM	–		
80	140	26	3.150	5.512	1.024	80.6	69.5	2.8	5 300	5 300	1.43	7216 BECBP	7216 BEP	
	140	26		5.512	1.024	83.2	73.5	3	5 300	5 300	1.58	7216 BECBY	–	
	140	26	5.512	1.024	85	75	3.05	5 600	5 600	1.59	* 7216 BECBM	–		
80	170	39	3.150	6.693	1.535	143	118	4.5	5 000	5 000	3.64	* 7316 BECBP	–	
	170	39		6.693	1.535	135	110	4.15	4 500	4 500	3.64	–	7316 BEP	
	170	39	6.693	1.535	143	118	4.5	4 500	4 500	3.7	7316 BECBY	7316 BEY		
	170	39	6.693	1.535	143	118	4.5	5 000	5 000	4.03	* 7316 BECBM	–		
	170	39	6.693	1.535	135	110	4.15	4 500	4 800	3.8	–	7316 BEM		
85	150	28	3.346	5.906	1.102	95.6	83	3.25	5 000	5 000	1.83	7217 BECBP	7217 BEP	
	150	28		5.906	1.102	95.6	83	3.25	5 000	5 000	1.83	7217 BECBY	–	
	150	28	5.906	1.102	95.6	83	3.25	5 000	5 300	1.99	7217 BECBM	–		
	180	41	7.087	1.614	156	132	4.9	4 800	4 800	4.26	* 7317 BECBP	–		
	180	41	7.087	1.614	146	112	4.5	4 300	4 300	4.26	–	7317 BEP		
	180	41	7.087	1.614	153	132	4.9	4 300	4 300	4.59	7317 BECBY	–		
	180	41	7.087	1.614	156	132	4.9	4 800	4 800	4.74	* 7317 BECBM	–		
	180	41	7.087	1.614	146	112	4.5	4 300	4 500	4.74	–	7317 BEM		
90	160	30	3.543	6.299	1.181	108	96.5	3.65	4 500	4 500	2.12	7218 BECBP	7218 BEP	
	160	30		6.299	1.181	108	96.5	3.65	4 500	4 500	2.34	7218 BECBY	–	
	160	30	6.299	1.181	108	96.5	3.65	4 500	4 800	2.41	7218 BECBM	–		
	190	43	7.480	1.693	166	146	5.3	4 500	4 500	4.98	* 7318 BECBP	–		
	190	43	7.480	1.693	156	134	4.8	4 000	4 000	4.98	–	7318 BEP		
	190	43	7.480	1.693	165	146	5.2	4 000	4 000	5.22	7318 BECBY	–		
	190	43	7.480	1.693	166	146	5.3	4 500	4 500	5.53	* 7318 BECBM	–		
	190	43	7.480	1.693	156	134	4.8	4 000	4 300	5.53	–	7318 BEM		

* SKF Explorer bearing

Single row angular contact ball bearings

d 95 - 180 mm
d 3.740 - 7.087 in



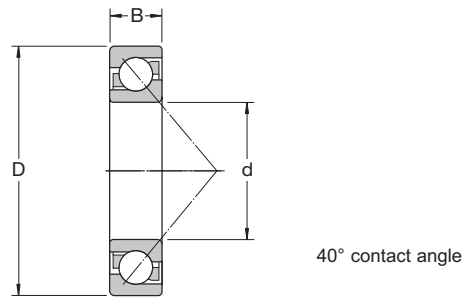
Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass kg	Designations	
d	D	B	d	D	B	dynamic C	static C ₀		Reference speed	Limiting speed		Universally matchable bearing	Basic design bearing
			in				kN	kN	r/min				
95	170	32	3.740	6.693	1.260	124	108	4	4 300	4 300	2.68	7219 BECBP	7219 BEP
	170	32		6.693	1.260	124	108	4	4 300	4 300	2.82	7219 BECBy	–
	170	32	6.693	1.260	129	118	4.4	4 800	4 800	2.95	* 7219 BECBM	–	
	200	45	7.874	1.772	180	163	5.7	4 300	4 300	5.77	* 7319 BECBP	–	
	200	45	7.874	1.772	168	150	5.2	3 800	3 800	5.77	–	7319 BEP	
	200	45	7.874	1.772	178	163	5.6	3 800	3 800	6.17	7319 BECBy	–	
	200	45	7.874	1.772	180	163	5.7	4 300	4 300	6.41	* 7319 BECBM	–	
200	45	7.874	1.772	168	150	5.2	3 800	4 000	6.41	–	7319 BEM		
100	180	34	3.937	7.087	1.339	135	122	4.4	4 000	4 000	3.29	7220 BECBP	7220 BEP
	180	34		7.087	1.339	135	122	4.4	4 000	4 000	3.38	7220 BECBy	7220 BEY
	180	34	7.087	1.339	135	122	4.4	4 000	4 300	3.61	7220 BECBM	–	
	215	47	8.465	1.850	216	208	6.95	4 000	4 000	7.17	* 7320 BECBP	–	
	215	47	8.465	1.850	203	190	6.4	3 600	3 600	7.17	–	7320 BEP	
	215	47	8.465	1.850	203	190	6.4	3 600	3 600	7.15	7320 BECBy	7320 BEY	
	215	47	8.465	1.850	216	208	6.95	4 000	4 000	8	* 7320 BECBM	–	
215	47	8.465	1.850	203	190	6.4	3 600	3 800	8	–	7320 BEM		
105	190	36	4.134	7.480	1.417	148	137	4.8	3 800	3 800	3.82	7221 BECBP	7221 BEP
	190	36		7.480	1.417	148	137	4.8	3 800	4 000	4.18	7221 BECBM	–
	225	49	8.858	1.929	212	208	6.95	3 400	3 400	8.46	7321 BECBP	7321 BEP	
	225	49	8.858	1.929	203	193	6.4	3 400	3 600	9.12	7321 BECBM	–	
110	200	38	4.331	7.874	1.496	163	153	5.2	3 600	3 600	4.6	7222 BECBP	7222 BEP
	200	38		7.874	1.496	163	153	5.2	3 600	3 600	4.75	7222 BECBy	–
	200	38	7.874	1.496	153	143	4.9	3 600	3 800	4.95	7222 BECBM	7222 BEM	
	240	50	9.449	1.969	225	224	7.2	3 200	3 200	9.69	7322 BECBP	7322 BEP	
	240	50	9.449	1.969	225	224	7.2	3 200	3 200	9.69	7322 BECBy	7322 BEY	
	240	50	9.449	1.969	225	224	7.2	3 200	3 400	10.7	7322 BECBM	7322 BEM	
120	215	40	4.724	8.465	1.575	165	163	5.3	3 400	3 600	5.89	7224 BCBM	7224 BM
	260	55		10.236	2.165	238	250	7.65	3 000	3 200	13.8	7324 BCBM	–
130	230	40	5.118	9.055	1.575	186	193	6.1	3 200	3 400	6.76	7226 BCBM	7226 BM
	280	58		11.024	2.283	296	305	9	2 800	2 800	17.1	7326 BCBM	7326 BM
140	250	42	5.512	9.843	1.654	199	212	6.4	2 800	3 000	8.63	7228 BCBM	7228 BM
	300	62		11.811	2.441	302	345	9.8	2 600	2 600	21.3	7328 BCBM	–
150	270	45	5.906	10.630	1.772	216	240	6.95	2 600	2 800	10.8	7230 BCBM	–
	320	65		12.598	2.559	332	390	10.8	2 400	2 400	25	7330 BCBM	–
160	290	48	6.299	11.417	1.890	255	300	8.5	2 400	2 600	13.6	7232 BCBM	–
170	310	52	6.693	12.205	2.047	281	345	9.5	2 400	2 400	16.7	7234 BCBM	–
	360	72		14.173	2.835	390	490	12.7	2 000	2 200	34.6	7334 BCBM	–
180	320	52	7.087	12.598	2.047	291	375	10	2 200	2 400	17.6	7236 BCBM	–
	380	75		14.961	2.953	410	540	13.7	2 000	2 000	40	7336 BCBM	–

* SKF Explorer bearing

Single row angular contact ball bearings

d 190 - 240 mm

d 7.48 - 9.449 in

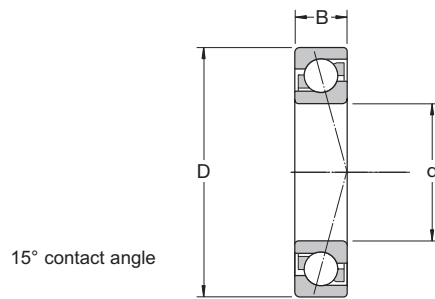


Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic	static		Reference speed	Limiting speed		Universally matchable bearing	Basic design bearing
mm			in			kN		kN	r/min		kg	—	
190	340	55	7.480	13.386	2.165	307	405	10.4	2 000	2 200	21.9	7238 BCBM	—
	400	78		15.748	3.071	442	600	14.6	1 900	1 900	48.3	7338 BCBM	—
200	360	58	7.874	14.173	2.283	325	430	11	1 800	2 000	25	7240 BCBM	—
	420	80		16.535	3.150	462	655	15.6	1 800	1 800	52.8	7340 BCBM	—
220	400	65	8.661	15.748	2.559	390	560	13.4	1 800	1 800	35.2	7244 BCBM	—
240	440	72	9.449	17.323	2.835	364	540	12.5	1 600	1 700	49	7248 BCBM	—

* SKF Explorer bearing

MRC 300-R Medium Series (Single bearings)

d 12 - 280 mm
d 0.4724 - 11.0236 in



300-R Medium Series bearing bores range in diameter from 12 mm to 280 mm. They are used with heavy radial loads, one-directional thrust loads, or a combination of both. They can be furnished duplex ground for mounting in pairs with two-directional thrust loads.

MRC Bearing Number	Principal Dimensions			Basic Radial Load Rating			Speed Rating ¹⁾			
	d	D	B	d	D	B	Dynamic ²⁾	Static	Grease	Oil
	mm			in			kN	kN	rpm	
301-R	12	37	12	0.4724	1.4567	0.4727	10.600	4.900	19 000	24 000
302-R	15	42	13	0.5906	1.6535	0.5118	12.100	6.550	17 000	20 000
303-R	17	47	14	0.6693	1.8504	0.5512	14.800	8.150	16 000	19 000
304-R	20	52	15	0.7874	2.0472	0.5906	20.300	11.400	13 000	16 000
305-R	25	62	17	0.9843	2.4409	0.6693	23.400	15.300	11 000	14 000
306-R	30	72	19	1.1811	2.8346	0.748	31.200	20.000	9 000	11 000
307-R	35	80	21	1.3780	3.1496	0.8268	39.700	26.000	8 500	10 000
308-R	40	90	23	1.5748	3.5433	0.9055	48.800	33.500	7 500	9 000
309-R	45	100	25	1.7717	3.9370	0.9843	58.500	40.500	6 700	8 000
310-R	50	110	27	1.9685	4.3307	1.063	80.600	57.000	6 300	7 500
311-R	55	120	29	2.1654	4.7244	1.1417	93.600	67.000	5 600	6 700
312-R	60	130	31	2.3622	5.1181	1.2205	108.000	78.000	5 000	6 000
313-R	65	140	33	2.5591	5.5118	1.2992	121.000	93.000	4 800	5 600
314-R	70	150	35	2.7559	5.9055	1.378	121.000	93.000	4 500	5 300
315-R	75	160	37	2.9528	6.2992	1.4567	153.000	122.000	4 300	5 000
316-R	80	170	39	3.1496	6.6929	1.5354	159.000	129.000	3 800	4 500
317-R	85	180	41	3.3465	7.0866	1.6142	182.000	156.000	3 600	4 300
318-R	90	190	43	3.5433	7.4803	1.6929	186.000	160.000	3 400	4 000
319-R	95	200	45	3.7402	7.8740	1.7717	199.000	180.000	3 200	3 800
320-R	100	215	47	3.9370	8.4646	1.8504	212.000	200.000	3 000	3 600
321-R	105	225	49	4.1339	8.8583	1.9291	229.000	204.000	2 800	3 400
322-R	110	240	50	4.3307	9.4488	1.9685	255.000	255.000	2 600	3 200
324-R	120	260	55	4.7244	10.2362	2.1654	265.000	300.000	2 500	3 000
326-R	130	280	58	5.1181	11.0236	2.2835	296.000	345.000	2 300	2 800
328-R	140	300	62	5.5118	11.8110	2.4409	351.000	400.000	2 100	2 600
330-R	150	320	65	5.9055	12.5984	2.5591	390.000	475.000	2 000	2 400
332-R	160	340	68	6.2992	13.3858	2.6772	423.000	530.000	1 800	2 200
334-R	170	360	72	6.6929	14.1732	2.8346	436.000	570.000	1 700	2 100
336-R	180	380	75	7.0866	14.9606	2.9528	475.000	640.000	1 600	2 000
338-R	190	400	78	7.4803	15.7480	3.0709	507.000	710.000	1 600	1 900
340-R	200	420	80	7.8740	16.5354	3.1496	553.000	780.000	1 500	1 800
342-R	210	440	84	8.2677	17.3228	3.3071	592.000	865.000	1 400	1 700
344-R	220	460	88	8.6614	18.1102	3.4646	637.000	950.000	1 300	1 600
348-R	240	500	95	9.4488	19.6850	3.7402	676.000	1 060.000	1 100	1 400
352-R	260	540	102	10.2362	21.2598	4.0157	741.000	1 250.000	1 100	1 300
356-R	280	580	108	11.0236	22.8346	4.252	832.000	1 460.000	980	1 200

¹⁾ Listed values are for pressed steel or polyamide cage, ABEC-1.

For phenolic composition cage, multiply by 1.66 for grease and 2.00 for oil. For machined bronze cage, multiply by 1.25 for grease and 1.50 for oil. For phenolic composition cage, ABEC-5 or 7, multiply by 2.30 for grease and 2.80 for oil. The speed rating adjustment factors have been determined through historical application and practice.

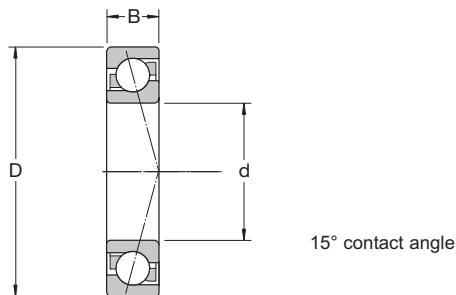
²⁾ Rating for one million revolutions or 500 hours at 33 1/3 RPM.

MRC 300-RD medium series, duplex

d 12 - 280 mm

d 0.474 - 11.0236 in

"D" indicates a duplex ground half pair matched with an identical half pair and is followed by an additional suffix letter to describe the type of duplex.



Note: ABEC 1 & 3 are stocked as half pairs where available.

Use these values for back-to-back (DB) or face-to-face (DF) mounting arrangements.

MRC Bearing Number	Principal Dimensions						Basic Radial Load Rating		Speed Rating ¹⁾	
	d	D	B	d	D	B	Dynamic ²⁾	Static	Grease	Oil
	mm			in			kN	kN	rpm	
301-RD	12	37	24	0.4724	1.4567	0.9449	17.2	9.8	15 000	19 000
302-RD	15	42	26	0.5906	1.6535	1.0236	19.9	12.9	14 000	16 000
303-RD	17	47	28	0.6693	1.8504	1.1024	23.8	16.3	13 000	15 000
304-RD	20	52	30	0.7874	2.0472	1.1811	32.5	22.4	10 000	13 000
305-RD	25	62	34	0.9843	2.4409	1.3386	37.7	30.5	8 800	11 000
306-RD	30	72	38	1.1811	2.8346	1.4961	50.7	40.0	7 200	8 800
307-RD	35	80	42	1.3780	3.1496	1.6535	63.7	52.0	6 800	8 000
308-RD	40	90	46	1.5748	3.5433	1.8110	79.3	67.0	6 000	7 200
309-RD	45	100	50	1.7717	3.9370	1.9685	95.6	81.5	5 400	6 400
310-RD	50	110	54	1.9685	4.3307	2.1260	133.0	114.0	5 000	6 000
311-RD	55	120	58	2.1654	4.7244	2.2835	153.0	134.0	4 500	5 400
312-RD	60	130	62	2.3622	5.1181	2.4409	174.0	156.0	4 000	4 800
313-RD	65	140	66	2.5591	5.5118	2.5984	195.0	190.0	3 800	4 500
314-RD	70	150	70	2.7559	5.9055	2.7559	199.0	190.0	3 600	4 200
315-RD	75	160	74	2.9528	6.2992	2.9134	247.0	245.0	3 400	4 000
316-RD	80	170	78	3.1496	6.6929	3.0709	255.0	260.0	3 000	3 600
317-RD	85	180	82	3.3465	7.0866	3.2283	291.0	310.0	2 900	3 400
318-RD	90	190	86	3.5433	7.4803	3.3858	302.0	325.0	2 700	3 200
319-RD	95	200	90	3.7402	7.8740	3.5433	325.0	360.0	2 600	3 000
320-RD	100	215	94	3.9370	8.4646	3.7008	345.0	400.0	2 400	2 900
321-RD	105	225	98	4.1339	8.8583	3.8583	371.0	415.0	2 200	2 700
322-RD	110	240	100	4.3307	9.4488	3.9370	416.0	510.0	2 100	2 600
324-RD	120	260	110	4.7244	10.2362	4.3307	436.0	600.0	2 000	2 400
326-RD	130	280	116	5.1181	11.0236	4.5669	475.0	695.0	1 800	2 200
328-RD	140	300	124	5.5118	11.8110	4.8819	572.0	800.0	1 700	2 100
330-RD	150	320	130	5.9055	12.5984	5.1181	624.0	950.0	1 600	1 900
332-RD	160	340	136	6.2992	13.3858	5.3543	689.0	1080.0	1 400	1 800
334-RD	170	360	144	6.6929	14.1732	5.6693	715.0	1140.0	1 400	1 700
336-RD	180	380	150	7.0866	14.9606	5.9055	780.0	1270.0	1 300	1 600
338-RD	190	400	156	7.4803	15.7480	6.1417	832.0	1430.0	1 300	1 500
340-RD	200	420	160	7.8740	16.5354	6.2992	904.0	1560.0	1 200	1 400
342-RD	210	440	168	8.2677	17.3228	6.6142	956.0	1730.0	1 100	1 400
344-RD	220	460	176	8.6614	18.1102	6.9291	1040.0	1900.0	1 000	1 300
348-RD	240	500	190	9.4488	19.6850	7.4803	1080	2120.0	880	1 100
352-RD	260	540	204	10.2362	21.2598	8.0315	1210	2500.0	880	1 000
356-RD	280	580	216	11.0236	22.8346	8.5039	1350	2900.0	780	960

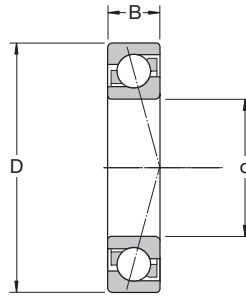
¹⁾ Listed values are for pressed steel or polyamide cage, ABEC-1.

For phenolic composition cage, multiply by 1.66 for grease and 2.00 for oil. For machined bronze cage, multiply by 1.25 for grease and 1.50 for oil. For phenolic composition cage, ABEC-5 or 7, multiply by 2.30 for grease and 2.80 for oil. The speed rating adjustment factors have been determined through historical application and practice.

²⁾ Rating for one million revolutions or 500 hours at 33 1/3 RPM.

MRC 400-R and 400-RD Heavy Series, Duplex

d 17 - 110 mm
d 0.6693 - 4.3307 in



15° contact angle

400-R and -RD Heavy Series bearings are available in bores from 17 mm to 110 mm. They can handle very heavy radial loads, one-directional thrust loads, or a combination of both. Use duplex bearings for two-directional thrust loads.

"D" indicates a duplex ground half pair matched with an identical half pair and is followed by an additional suffix letter to describe the type of duplex.

Values for -RD bearings are for back-to-back (DB) or face-to-face (DF) mounting arrangements.

Note: ABEC 1 & 3 are stocked as half pairs where available.

MRC Bearing Number	Principal Dimensions						Basic Radial Load Rating		Speed Rating ¹⁾	
	d	D	B	d	D	B	Dynamic ²⁾	Static	Grease	Oil
	mm			in			kN	kN	rpm	
403-R	17	62	17	0.6693	2.4409	0.6693	23.4	14.6	12 000	15 000
404-R	20	72	19	0.7874	2.8346	0.7480	37.1	21.2	10 000	13 000
405-R	25	80	21	0.9843	3.1496	0.8268	44.9	26.5	9 000	11 000
406-R	30	90	23	1.1811	3.5433	0.9055	49.4	36.0	8 500	10 000
407-R	35	100	25	1.3780	3.9370	0.9843	58.5	44.0	7 000	8 500
408-R	40	110	27	1.5748	4.3307	1.0630	67.6	52.0	6 700	8 000
409-R	45	120	29	1.7717	4.7244	1.1417	78.0	61.0	6 000	7 000
410-R	50	130	31	1.9685	5.1181	1.2205	95.6	78.0	5 300	6 300
411-R	55	140	33	2.1654	5.5118	1.2992	108.0	90.0	5 000	6 000
412-R	60	150	35	2.3622	5.9055	1.3780	117.0	102.0	4 800	5 600
413-R	65	160	37	2.5591	6.2992	1.4567	127.0	112.0	4 500	5 300
414-R	70	180	42	2.7559	7.0866	1.6535	156.0	150.0	3 800	4 500
415-R	75	190	45	2.9528	7.4803	1.7717	168.0	166.0	3 600	4 300
416-R	80	200	48	3.1496	7.8740	1.8898	178.0	183.0	3 400	4 000
417-R	85	210	52	3.3465	8.2677	2.0472	190.0	200.0	3 200	3 800
418-R	90	225	54	3.5433	8.8583	2.1260	212.0	236.0	3 000	3 600
419-R	95	250	55	3.7402	9.8425	2.1654	234.0	275.0	2 700	3 300
420-R	100	265	60	3.9370	10.4331	2.3622	260.0	305.0	2 500	3 100
421-R	105	290	65	4.1339	11.4173	2.5591	286.0	355.0	2 400	2 900
422-R	110	320	70	4.3307	12.5984	2.7559	319.0	425.0	2 100	2 600
403-RD	17	62	34	0.6693	2.4409	1.3386	37.7	29.0	9 600	12 000
404-RD	20	72	38	0.7874	2.8346	1.4961	60.5	42.5	8 000	10 000
405-RD	25	80	42	0.9843	3.1496	1.6535	74.1	53.0	7 200	8 800
406-RD	30	90	46	1.1811	3.5433	1.8110	80.6	72.0	6 800	8 000
407-RD	35	100	50	1.3780	3.9370	1.9685	95.6	86.5	5 600	6 800
408-RD	40	110	54	1.5748	4.3307	2.1260	111.0	104.0	5 400	6 400
409-RD	45	120	58	1.7717	4.7244	2.2835	127.0	122.0	4 800	5 600
410-RD	50	130	62	1.9685	5.1181	2.4409	153.0	156.0	4 200	5 000
411-RD	55	140	66	2.1654	5.5118	2.5984	174.0	180.0	4 000	4 800
412-RD	60	150	70	2.3622	5.9055	2.7559	190.0	204.0	3 800	4 500
413-RD	65	160	74	2.5591	6.2992	2.9134	208.0	224.0	3 600	4 200
414-RD	70	180	84	2.7559	7.0866	3.3071	255.0	300.0	3 000	3 600
415-RD	75	190	90	2.9528	7.4803	3.5433	270.0	335.0	2 900	3 400
416-RD	80	200	96	3.1496	7.8740	3.7795	286.0	365.0	2 700	3 200
417-RD	85	210	104	3.3465	8.2677	4.0945	307.0	400.0	2 600	3 000
418-RD	90	225	108	3.5433	8.8583	4.2520	345.0	465.0	2 400	2 900
419-RD	95	250	110	3.7402	9.8425	4.3307	377.0	550.0	2 200	2 600
420-RD	100	265	120	3.9370	10.4331	4.7244	416.0	610.0	2 000	2 500
421-RD	105	290	130	4.1339	11.4173	5.1181	462.0	710.0	1 900	2 300
422-RD	110	320	140	4.3307	12.5984	5.5118	520.0	850.0	1 700	2 100

¹⁾ Listed values are for pressed steel or polyamide cage, ABEC-1.

For phenolic composition cage, multiply by 1.66 for grease and 2.00 for oil. For machined bronze cage, multiply by 1.25 for grease and 1.50 for oil. For phenolic composition cage, ABEC-5 or 7, multiply by 2.30 for grease and 2.80 for oil. The speed rating adjustment factors have been determined through historical application and practice.

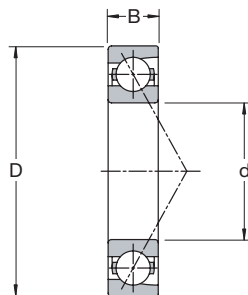
²⁾ Rating for one million revolutions or 500 hours at 33 1/3 RPM.

MRC 7200 Light Series (single bearings)

d 10 - 320 mm

d 0.3937 - 12.5984 in

The 7200 Series contains single-row angular contact bearings with a counterbored outer ring. Bore sizes range from 10 mm to 320 mm, and most of these bearings are available with a two-piece pressed steel cage, or a one-piece nonmetallic or solid bronze cage. 7000 Series bearings are designed with an initial contact angle of 29 degrees, although some small sizes may have a lesser angle. 7200 Series bearings can be used with moderate to heavy one-directional thrust loads, or combined radial and thrust loads where the thrust load is predominant.



29° contact angle

Caution: Single bearings are not to be used where only radial loads are present. For two-directional thrust loads, use duplex bearings.

MRC Bearing Number	Principal Dimensions						Basic Radial ¹⁾ Load Rating		Speed Rating ²⁾	
	d	D	B	d	D	B	C ³⁾	C ₀	Grease	Oil
	mm			in			kN	kN	rpm	
7200	10	30	9	0.3937	1.1811	0.3543	5.40	2.75	28 000	36 000
7201	12	32	10	0.4724	1.2598	0.3937	6.24	3.20	22 000	29 000
7202	15	35	11	0.5906	1.3780	0.4331	9.04	4.75	20 000	26 000
7203	17	40	12	0.6693	1.5748	0.4724	11.9	6.6	18 000	23 000
7204	20	47	14	0.7874	1.8504	0.5512	12.7	7.2	15 000	19 000
7205	25	52	15	0.9843	2.0472	0.5906	15.3	9.5	12 000	16 000
7206	30	62	16	1.1811	2.4409	0.6299	16.8	11.8	10 000	13 000
7207	35	72	17	1.3780	2.8346	0.6693	23.4	17.0	9 200	12 000
7208	40	80	18	1.5748	3.1496	0.7087	30.7	22.8	7 700	10 000
7209	45	85	19	1.7717	3.3465	0.7480	30.7	23.2	7 300	9 500
7210	50	90	20	1.9685	3.5433	0.7874	33.2	27.0	6 400	8 300
7211	55	100	21	2.1654	3.9370	0.8268	48.8	37.5	6 000	7 800
7212	60	110	22	2.3622	4.3307	0.8661	52.7	44.0	5 400	7 000
7213	65	120	23	2.5591	4.7244	0.9055	63.7	54.0	4 900	6 400
7214	70	125	24	2.7559	4.9213	0.9449	63.7	55.0	4 600	6 000
7215	75	130	25	2.9528	5.1181	0.9843	79.3	69.5	4 300	5 600
7216	80	140	26	3.1496	5.5118	1.0236	74.1	67.0	4 100	5 300
7217	85	150	28	3.3465	5.9055	1.1024	90.4	83.0	3 800	4 900
7218	90	160	30	3.5433	6.2992	1.1811	117.0	118.0	3 600	4 700
7219	95	170	32	3.7402	6.6929	1.2598	121.0	114.0	3 500	4 500
7220	100	180	34	3.9370	7.0866	1.3386	138.0	129.0	3 200	4 100
7221	105	190	36	4.1339	7.4803	1.4173	148.0	137.0	3 000	3 900
7222	110	200	38	4.3307	7.8740	1.4961	163.0	156.0	2 900	3 800
7224	120	215	40	4.7244	8.4646	1.5748	174.0	176.0	2 700	3 500
7226	130	230	40	5.1181	9.0551	1.5748	195.0	208.0	2 500	3 200
7228	140	250	42	5.5118	9.8425	1.6535	208.0	232.0	2 300	3 000
7230	150	270	45	5.9055	10.6299	1.7717	242.0	280.0	2 100	2 700
7232	160	290	48	6.2992	11.4173	1.8898	270.0	325.0	2 000	2 600
7234	170	310	52	6.6929	12.2047	2.0472	286.0	365.0	1 900	2 500
7236	180	320	52	7.0866	12.5984	2.0472	302.0	390.0	1 900	2 400
7238	190	340	55	7.4803	13.3858	2.1654	332.0	450.0	1 700	2 200
7240	200	360	58	7.8740	14.1732	2.2835	351.0	490.0	1 600	2 100
7242	210	380	61	8.2677	14.9606	2.4016	390.0	560.0	1 500	2 000
7244	220	400	65	8.6614	15.7480	2.5591	403.0	600.0	1 500	2 000
7246	230	420	68	9.0551	16.5354	2.6772	442.0	670.0	1 500	1 900
7248	240	440	72	9.4488	17.3228	2.8346	475.0	750.0	1 400	1 800
7250	250	460	76	9.8425	18.1102	2.9921	520.0	830.0	1 400	1 800
7252	260	480	80	10.2362	18.8976	3.1496	559.0	915.0	1 300	1 700
7256	280	500	80	11.0236	19.6850	3.1496	572.0	980.0	1 300	1 700
7260	300	540	85	11.8110	21.2598	3.3465	618.0	1100.0	1 200	1 600
7264	320	580	92	12.5984	22.8346	3.6220	650.0	1220.0	1 200	1 500

1) For thrust rating multiply C by 1.32 and C₀ by 2.94.

2) Listed values are for machined bronze cage, ABEC-1.

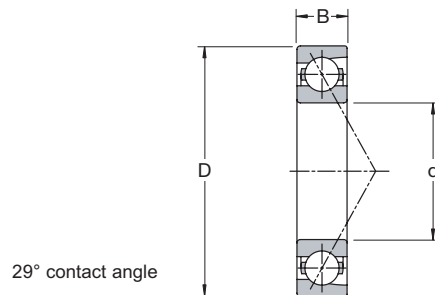
For phenolic composition cage, multiply by 1.33 for both grease and oil. For phenolic composition cage, ABEC-5 or 7, multiply by 1.86 for both grease and oil. For pressed steel cage, ABEC-1, multiply by 0.67 for grease and 0.80 for oil. The speed rating adjustment factors have been determined through historical application and practice.

3) Rating for one million revolutions or 500 hours at 33 1/3 RPM.

MRC 7200-D light series, duplex

d 10 - 320 mm

d 0.3937 - 12.5984 in



"D" indicates a duplex ground half pair matched with an identical half pair and is followed by an additional suffix letter to describe the type of duplex.

Use these values for back-to-back (DB) or face-to-face (DF) mounting arrangements.

Note: ABEC 1 & 3 are stocked as half pairs, where available.

MRC Bearing Number	Principal Dimensions			Principal Dimensions			Basic Radial ¹⁾ Load Rating		Speed Rating ²⁾	
	d	D	B	d	D	B	C ³⁾	C ₀	Grease	Oil
	mm			in			kN	kN	rpm	
7200-D	10	30	18	0.3937	1.1811	0.7087	8.8	5.5	22 000	29 000
7201-D	12	32	20	0.4724	1.2598	0.7874	10.1	6.4	18 000	23 000
7202-D	15	35	22	0.5906	1.3780	0.8661	14.8	9.5	16 000	21 000
7203-D	17	40	24	0.6693	1.5748	0.9449	19.5	13.2	14 000	18 000
7204-D	20	47	28	0.7874	1.8504	1.1024	20.8	14.6	12 000	15 000
7205-D	25	52	30	0.9843	2.0472	1.1811	25.1	19.0	9 600	13 000
7206-D	30	62	32	1.1811	2.4409	1.2598	27.6	23.6	8 000	10 000
7207-D	35	72	34	1.3780	2.8346	1.3386	37.7	34.0	7 400	9 600
7208-D	40	80	36	1.5748	3.1496	1.4173	49.4	45.5	6 200	8 000
7209-D	45	85	38	1.7717	3.3465	1.4961	49.4	46.5	5 800	7 600
7210-D	50	90	40	1.9685	3.5433	1.5748	54.0	54.0	5 100	6 600
7211-D	55	100	42	2.1654	3.9370	1.6535	79.3	75.0	4 800	6 200
7212-D	60	110	44	2.3622	4.3307	1.7323	85.2	88.0	4 300	5 600
7213-D	65	120	46	2.5591	4.7244	1.8110	104.0	110.0	3 900	5 100
7214-D	70	125	48	2.7559	4.9213	1.8898	104.0	110.0	3 700	4 800
7215-D	75	130	50	2.9528	5.1181	1.9685	130.0	140.0	3 400	4 500
7216-D	80	140	52	3.1496	5.5118	2.0472	121.0	134.0	3 300	4 200
7217-D	85	150	56	3.3465	5.9055	2.2047	148.0	166.0	3 000	3 900
7218-D	90	160	60	3.5433	6.2992	2.3622	190.0	236.0	2 900	3 800
7219-D	95	170	64	3.7402	6.6929	2.5197	199.0	228.0	2 800	3 600
7220-D	100	180	68	3.9370	7.0866	2.6772	225.0	260.0	2 600	3 300
7221-D	105	190	72	4.1339	7.4803	2.8346	242.0	295.0	2 400	3 100
7222-D	110	200	76	4.3307	7.8740	2.9921	265.0	310.0	2 300	3 000
7224-D	120	215	80	4.7244	8.4646	3.1496	281.0	355.0	2 200	2 800
7226-D	130	230	80	5.1181	9.0551	3.1496	319.0	415.0	2 000	2 600
7228-D	140	250	84	5.5118	9.8425	3.3071	338.0	465.0	1 800	2 400
7230-D	150	270	90	5.9055	10.6299	3.5435	397.0	560.0	1 700	2 200
7232-D	160	290	96	6.2992	11.4173	3.7795	442.0	670.0	1 600	2 100
7234-D	170	310	104	6.6929	12.2047	4.0945	468.0	735.0	1 500	2 000
7236-D	180	320	104	7.0866	12.5984	4.0945	494.0	780.0	1 500	1 900
7238-D	190	340	110	7.4803	13.3858	4.3307	540.0	900.0	1 400	1 800
7240-D	200	360	116	7.8740	14.1732	4.5669	572.0	965.0	1 300	1 700
7242-D	210	380	122	8.2677	14.9606	4.8031	637.0	1120.0	1 200	1 600
7244-D	220	400	130	8.6614	15.7480	5.1181	650.0	1200.0	1 200	1 600
7246-D	230	420	136	9.0551	16.5354	5.3543	715.0	1340.0	1 200	1 500
7248-D	240	440	144	9.4488	17.3228	5.6693	780.0	1500.0	1 100	1 400
7250-D	250	460	152	9.8425	18.1102	5.9842	852.0	1660.0	1 100	1 400
7252-D	260	480	160	10.2362	18.8976	6.2992	904.0	1830.0	1 000	1 400
7256-D	280	500	160	11.0236	19.6850	6.2992	936.0	2000.0	1 000	1 400
7260-D	300	540	170	11.8110	21.2598	6.6929	1010.0	2200.0	960	1 300
7264-D	320	580	184	12.5984	22.8346	7.2441	1060.0	2400.0	960	1 200

1) For thrust rating multiply C by 0.81 and C₀ by 1.47.

2) Listed values are for machined bronze cage, ABEC-1.

For phenolic composition cage, multiply by 1.33 for both grease and oil. For phenolic composition cage, ABEC-5 or 7, multiply by 1.86 for both grease and oil. For pressed steel cage, ABEC-1, multiply by 0.67 for grease and 0.80 for oil. The speed rating adjustment factors have been determined through historical application and practice.

3) Rating for one million revolutions or 500 hours at 33 1/3 RPM.

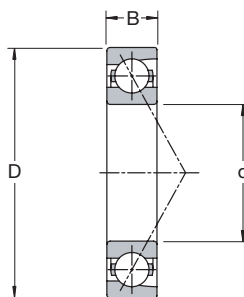
MRC 7300 Medium Series (Single bearings)

d 10 - 280 mm

d 0.3937 - 11.0236 in

7300 series bearings have the same ring and ball cage construction as the 7200 Series but are heavier sectioned bearings with a ball complement capable of handling heavier loads. 7300 Series are listed with bore sizes from 10 mm to 280 mm. For two directional thrust loads, use duplex bearings.

Caution: Single bearings are not to be used where only radial loads are present. For two-direction thrust loads, use duplex bearings.



29° contact angle

MRC Bearing Number	Principal Dimensions						Basic Radial ¹⁾ Load Rating		Speed Rating ²⁾	
	d	D	B	d	D	B	C ³⁾	C ₀	Grease	Oil
	mm			in			kN	kN	rpm	
7300	10	36	11	0.3937	1.3780	.4331	6.37	3.20	24 000	31 000
7301	12	37	12	0.4724	1.4567	0.4724	7.02	3.75	19 000	25 000
7302	15	42	13	0.5906	1.6535	0.5118	13.50	7.10	16 000	21 000
7303	17	47	14	0.6693	1.8504	0.5512	15.9	8.65	15 000	19 000
7304	20	52	15	0.7874	2.0472	0.5906	18.6	10.6	13 000	17 000
7305	25	62	17	0.9843	2.4409	0.6693	21.2	13.7	11 000	14 000
7306	30	72	19	1.1811	2.8346	0.7480	28.1	18.6	9 200	12 000
7307	35	80	21	1.3780	3.1496	0.8268	35.8	24.0	8 500	11 000
7308	40	90	23	1.5748	3.5433	0.9055	44.2	30.5	7 300	9 500
7309	45	100	25	1.7717	3.9370	0.9843	52.7	37.5	6 400	8 300
7310	50	110	27	1.9685	4.3307	1.0630	74.1	53.0	5 800	7 500
7311	55	120	29	2.1654	4.7244	1.1417	85.2	62.0	5 100	6 600
7312	60	130	31	2.3622	5.1181	1.2205	97.5	72.0	4 900	6 400
7313	65	140	33	2.5591	5.5118	1.2992	108.0	86.5	4 600	6 000
7314	70	150	35	2.7559	5.9055	1.3780	111.0	85.0	4 100	5 300
7315	75	160	37	2.9528	6.2992	1.4567	138.0	114.0	3 900	5 000
7316	80	170	39	3.1496	6.6929	1.5354	143.0	120.0	3 600	4 700
7317	85	180	41	3.3465	7.0866	1.6142	163.0	143.0	3 500	4 500
7318	90	190	43	3.5433	7.4803	1.6299	168.0	150.0	3 200	4 200
7319	95	200	45	3.7402	7.8740	1.7717	178.0	166.0	3 100	4 000
7320	100	215	47	3.9370	8.4646	1.8504	190.0	183.0	3 000	3 900
7321	105	225	49	4.1339	8.8583	1.9291	203.0	200.0	2 900	3 800
7322	110	240	50	4.3307	9.4488	1.9685	229.0	236.0	2 700	3 500
7324	120	260	55	4.7244	10.2362	2.1654	260.0	275.0	2 500	3 200
7326	130	280	58	5.1181	11.0236	2.2835	286.0	320.0	2 300	3 000
7328	140	300	62	5.5118	11.8110	2.4409	312.0	375.0	2 200	2 800
7330	150	320	65	5.9055	12.5984	2.5591	345.0	430.0	2 000	2 600
7332	160	340	68	6.2992	13.3858	2.6772	377.0	490.0	1 900	2 500
7334	170	360	72	6.6929	14.1732	2.8346	397.0	520.0	1 900	2 400
7336	180	380	75	7.0866	14.9606	2.9528	423.0	585.0	1 800	2 300
7338	190	400	78	7.4803	15.7480	3.0709	462.0	655.0	1 600	2 100
7340	200	420	80	7.8740	16.5354	3.1496	494.0	720.0	1 500	2 000
7342	210	440	84	8.2677	17.3228	3.3071	527.0	800.0	1 500	1 900
7344	220	460	88	8.6614	18.1102	3.4646	559.0	865.0	1 400	1 800
7348	240	500	95	9.4488	19.6850	3.7402	605.0	965.0	1 400	1 700
7352	260	540	102	10.2362	21.2598	4.0157	663.0	1140.0	1 300	1 600
7356	280	580	108	11.0236	22.8346	4.2520	741.0	1340.0	1 200	1 500

1) For thrust rating multiply C by 1.32 and C₀ by 2.94

2) Listed values are for machined bronze cage, ABEC-1.

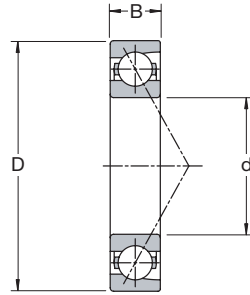
For phenolic composition cage, multiply by 1.33 for both grease and oil. For phenolic composition cage, ABEC-5 or 7, multiply by 1.86 for both grease and oil. For pressed steel cage, ABEC-1, multiply by 0.67 for grease and 0.80 for oil. The speed rating adjustment factors have been determined through historical application and practice.

3) Rating for one million revolutions or 500 hours at 33 1/3 RPM.

MRC 7300-D medium series, duplex

d 10 - 280 mm

d 0.3937 - 11.0236 in



29° contact angle

"D" indicates a duplex ground half pair matched with an identical half pair and is followed by an additional suffix letter to describe the type of duplex.

Use these values for back-to-back (DB) or face-to-face (DF) mounting arrangements.

Note: ABEC 1 & 3 are stocked as half pairs where available.

MRC Bearing Number	Principal Dimensions						Basic Radial ¹⁾ Load Rating		Speed Rating ²⁾	
	d	D	B	d	D	B	C ³⁾	C ₀	Grease	Oil
	mm			in			kN	kN	rpm	
7300-D 10	36	22	0.3937	1.3780	0.8661	10.4	6.4	19 000	25 000	
7301-D 12	37	24	0.4724	1.4567	0.9449	11.4	7.5	15 000	20 000	
7302-D 15	42	26	0.5906	1.6535	1.0236	21.6	14.3	13 000	17 000	
7303-D 17	47	28	0.6693	1.8504	1.1024	26.0	17.3	12 000	15 000	
7304-D 20	52	30	0.7874	2.0472	1.1811	30.2	21.2	10 000	14 000	
7305-D 25	62	34	0.9843	2.4409	1.3386	34.5	27.0	8 800	11 000	
7306-D 30	72	38	1.1811	2.8346	1.4961	46.2	37.5	7 400	9 600	
7307-D 35	80	42	1.3780	3.1496	1.6535	58.5	48.0	6 800	8 800	
7308-D 40	90	46	1.5748	3.5433	1.8110	71.5	61.0	5 800	7 600	
7309-D 45	100	50	1.7717	3.9370	1.9685	85.2	75.0	5 100	6 600	
7310-D 50	110	54	1.9685	4.3307	2.1260	121.0	106.0	4 600	6 000	
7311-D 55	120	58	2.1654	4.7244	2.2835	140.0	125.0	4 100	5 300	
7312-D 60	130	62	2.3622	5.1181	2.4409	159.0	146.0	3 900	5 100	
7313-D 65	140	66	2.5591	5.5118	2.5984	178.0	173.0	3 700	4 800	
7314-D 70	150	70	2.7559	5.9055	2.7559	182.0	170.0	3 300	4 200	
7315-D 75	160	74	2.9528	6.2992	2.9134	225.0	228.0	3 100	4 000	
7316-D 80	170	78	3.1496	6.6929	3.0709	234.0	240.0	2 900	3 800	
7317-D 85	180	82	3.3465	7.0866	3.2283	265.0	285.0	2 800	3 600	
7318-D 90	190	86	3.5433	7.4803	3.3858	276.0	300.0	2 600	3 400	
7319-D 95	200	90	3.7402	7.8740	3.5433	291.0	325.0	2 500	3 200	
7320-D 100	215	94	3.9370	8.4646	3.7008	312.0	365.0	2 400	3 100	
7321-D 105	225	98	4.1339	8.8583	3.8583	332.0	400.0	2 300	3 000	
7322-D 110	240	100	4.3307	9.4488	3.9370	371.0	475.0	2 200	2 800	
7324-D 120	260	110	4.7244	10.2362	4.3307	423.0	560.0	2 000	2 600	
7326-D 130	280	116	5.1181	11.0236	4.5669	468.0	640.0	1 800	2 400	
7328-D 140	300	124	5.5118	11.8110	4.8819	507.0	735.0	1 800	2 200	
7330-D 150	320	130	5.9055	12.5984	5.1181	559.0	865.0	1 600	2 100	
7332-D 160	340	136	6.2992	13.3858	5.3543	618.0	965.0	1 500	2 000	
7334-D 170	360	144	6.6929	14.1732	5.6693	650.0	1040.0	1 500	1 900	
7336-D 180	380	150	7.0866	14.9606	5.9055	689.0	1160.0	1 400	1 800	
7338-D 190	400	156	7.4803	15.748	6.1417	761.0	1290.0	1 300	1 700	
7340-D 200	420	160	7.8740	16.5354	6.2992	806.0	1430.0	1 200	1 600	
7342-D 210	440	168	8.2677	17.3228	6.6142	852.0	1600.0	1 200	1 500	
7344-D 220	460	176	8.6614	18.1102	6.9291	904.0	1730.0	1 100	1 400	
7348-D 240	500	190	9.4488	19.6850	7.4803	975.0	1930.0	1 000	1 400	
7352-D 260	540	204	10.2362	21.2598	8.0315	1080.0	2280.0	960	1 300	
7356-D 280	580	216	11.0236	22.8346	8.5309	1210.0	2650.0	960	1 200	

1) For thrust rating multiply C by 0.81 and C₀ by 1.47.

2) Listed values are for machined bronze cage, ABEC-1.

For phenolic composition cage, multiply by 1.33 for both grease and oil. For phenolic composition cage, ABEC-5 or 7, multiply by 1.86 for both grease and oil. For pressed steel cage, ABEC-1, multiply by 0.67 for grease and 0.80 for oil. The speed rating adjustment factors have been determined through historical application and practice.

3) Rating for one million revolutions or 500 hours at 33 1/3 RPM.

MRC 7400 heavy series and MRC 7400-D heavy series

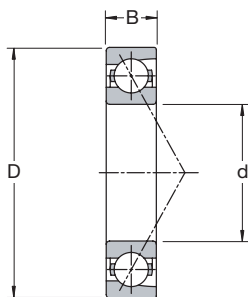
d 17 - 110 mm

d 0.6693 - 4.3307 in

7400 Series bearings are similar to the 7200 and 7300 Series but are heavier sectioned and are used for heavy one-directional thrust loads or combined radial and thrust loads where the thrust load is predominant.

"D" indicates a duplex ground half pair matched with an identical half pair and if followed by an additional suffix letter to describe the type of duplex.

Caution: Single bearings are not to be used where only radial loads are present. For two-direction thrust loads, use duplex bearings.



29° contact angle

Note: ABEC 1 & 3 are stocked as half pairs where available.

Values for -D bearings are for back-to-back (DB) or face-to-face (DF) mounting arrangements.

MRC Bearing Number	Principal Dimensions						Basic Radial ¹⁾ Load Rating		Speed Rating ²⁾	
	d	D	B	d	D	B	C ³⁾	C ₀	Grease	Oil
	mm			in			kN	kN	rpm	
7403	17	62	17	0.6693	2.4409	0.6693	26.0	13.7	14 000	18 000
7404	20	72	19	0.7874	2.8346	0.748	32.5	17.6	12 000	15 000
7405	25	80	21	0.9843	3.1496	0.8268	42.3	24.5	9 200	12 000
7406	30	90	23	1.1811	3.5433	0.9055	54.0	34.0	7 700	10 000
7407	35	100	25	1.3780	3.937	0.9843	63.7	40.5	6 600	8 500
7408	40	110	27	1.5748	4.3307	1.063	74.1	49.0	5 400	7 700
7409	45	120	29	1.7717	4.7244	1.1417	85.2	57.0	5 300	6 900
7410	50	130	31	1.9685	5.1181	1.2205	95.6	72.0	4 900	6 400
7411	55	140	33	2.1654	5.5118	1.2992	108.0	78.0	4 500	5 800
7412	60	150	35	2.3622	5.9055	1.378	127.0	93.0	4 100	5 300
7413	65	160	37	2.5591	6.2992	1.4567	138.0	106.0	3 800	4 900
7414	70	180	42	2.7559	7.0866	1.6535	168.0	140.0	3 500	4 600
7415	75	190	45	2.9528	7.4803	1.7717	182.0	156.0	3 300	4 300
7416	80	200	48	3.1496	7.874	1.8898	190.0	170.0	3 200	4 100
7417	85	210	52	3.3465	8.2677	2.0472	203.0	186.0	2 900	3 800
7418	90	225	54	3.5433	8.8583	2.126	229.0	220.0	2 700	3 500
7419	95	250	55	3.7402	9.8425	2.1654	255.0	255.0	2 500	3 300
7420	100	265	60	9.9370	10.4331	2.3622	276.0	290.0	2 400	3 200
7421	105	290	65	4.1339	11.4173	2.5591	332.0	325.0	2 300	3 000
7422	110	320	70	4.3307	12.5984	2.7559	371.0	390.0	2 200	2 900
7403-D	17	62	34	0.6693	2.4409	1.3386	42.3	27.0	11 000	14 000
7404-D	20	72	38	0.7874	2.8346	1.4961	52.7	35.5	9 600	12 000
7405-D	25	80	42	0.9843	3.1496	1.6535	68.9	49.0	7 400	9 600
7406-D	30	90	46	1.1811	3.5433	1.811	88.4	68.0	6 200	8 000
7407-D	35	100	50	1.3780	3.937	1.9685	104.0	81.5	5 300	6 800
7408-D	40	110	54	1.5748	4.3307	2.126	121.0	96.5	4 300	6 200
7409-D	45	120	58	1.7717	4.7244	2.2835	138.0	114.0	4 200	5 500
7410-D	50	130	62	1.9685	5.1181	2.4409	156.0	146.0	3 900	5 100
7411-D	55	140	66	2.1654	5.5118	2.5984	178.0	156.0	3 600	4 600
7412-D	60	150	70	2.3622	5.9055	2.7559	203.0	190.0	3 300	4 200
7413-D	65	160	74	2.5591	6.2992	2.9134	225.0	275.0	3 000	3 900
7414-D	70	180	84	2.7559	7.0866	3.3071	276.0	280.0	2 800	3 700
7415-D	75	190	90	2.9528	7.4803	3.5433	291.0	310.0	2 600	3 400
7416-D	80	200	96	3.1496	7.874	3.7795	312.0	340.0	2 500	3 300
7417-D	85	210	104	3.3465	8.2677	4.0945	332.0	375.0	2 300	3 000
7418-D	90	225	108	3.5433	8.8583	4.252	371.0	440.0	2 200	2 800
7419-D	95	250	110	3.7402	9.8425	4.3307	410.0	510.0	2 000	2 600
7420-D	100	265	120	9.9370	10.4331	4.7244	449.0	585.0	1 900	2 600
7421-D	105	290	130	4.1339	11.4173	5.1181	540.0	670.0	1 800	2 400
7422-D	110	320	140	4.3307	12.5984	5.5118	605.0	800.0	1 700	2 300

1) For thrust rating multiply C by 1.32 and C₀ by 2.94 (single) and C by 0.81 and C₀ by 1.47 (duplex)

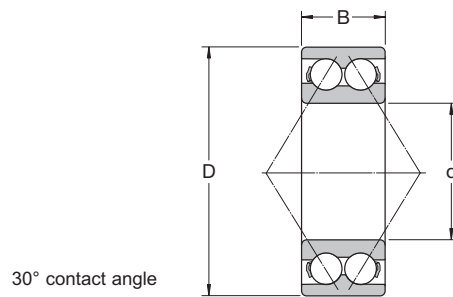
2) Listed values are for machined bronze cage, ABEC-1.

For phenolic composition cage, multiply by 1.33 for both grease and oil. For phenolic composition cage, ABEC-5 or 7, multiply by 1.86 for both grease and oil. For pressed steel cage, ABEC-1, multiply by 0.67 for grease and 0.80 for oil. The speed rating adjustment factors have been determined through historical application and practice.

3) Rating for one million revolutions or 500 hours at 33 1/3 RPM.

Double row angular contact ball bearings

d 10 - 65 mm
d 0.397 - 2.582 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic	static		Reference speed	Limiting speed		Bearing with metal cage	polyamide cage
			in			kN		kN	r/min		kg	-	
10	30	14	0.3937	1.1811	0.5512	7.61	4.3	0.183	22 000	24 000	0.051	-	3200 ATN9
12	32	15.9	0.4724	1.2598	0.6260	10.1	5.6	0.24	20 000	22 000	0.058	-	3201 ATN9
15	35	15.9	0.5906	1.3780	0.6260	11.2	6.8	0.285	17 000	18 000	0.066	-	3202 ATN9
	42	19		1.6535	0.7480	15.1	9.3	0.4	15 000	16 000	0.13	-	3302 ATN9
17	40	17.5	0.6693	1.5748	0.6890	14.3	8.8	0.365	15 000	16 000	0.096	-	3203 ATN9
	47	22.2		1.8504	0.8740	21.6	12.7	0.54	14 000	14 000	0.18	-	3303 ATN9
20	47	20.6	0.7874	1.8504	0.8110	20	12	0.51	14 000	14 000	0.16	* 3204 A	* 3204 ATN9
	52	22.2		2.0472	0.8740	23.6	14.6	0.62	13 000	13 000	0.22	* 3304 A	* 3304 ATN9
25	52	20.6	0.9843	2.0472	0.8110	21.6	14.3	0.6	12 000	12 000	0.18	* 3205 A	* 3205 ATN9
	62	25.4		2.4409	1.0000	32	20.4	0.865	11 000	11 000	0.35	* 3305 A	* 3305 ATN9
30	62	23.8	1.1811	2.4409	0.9370	30	20.4	0.865	10 000	10 000	0.29	* 3206 A	* 3206 ATN9
	72	30.2		2.8346	1.1890	41.5	27.5	1.16	9 000	9 000	0.53	* 3306 A	* 3306 ATN9
35	72	27	1.3780	2.8346	1.0630	40	28	1.18	9 000	9 000	0.44	* 3207 A	* 3207 ATN9
	80	34.9		3.1496	1.3740	52	35.5	1.5	8 500	8 500	0.71	* 3307 A	* 3307 ATN9
	80	34.9		3.1496	1.3740	52.7	41.5	1.76	7 500	8 000	0.79	3307 DJ1	-
40	80	30.2	1.5748	3.1496	1.1890	47.5	34	1.43	8 000	8 000	0.58	* 3208 A	* 3208 ATN9
	90	36.5		3.5433	1.4370	64	44	1.86	7 500	7 500	1.05	* 3308 A	* 3308 ATN9
	90	36.5		3.5433	1.4370	49.4	41.5	1.76	6 700	7 000	1.2	3308 DNRCBM	-
	90	36.5		3.5433	1.4370	68.9	64	2.45	6 700	7 000	1.05	3308 DMA	3308 DTN9
45	85	30.2	1.7717	3.3465	1.1890	51	39	1.63	7 500	7 500	0.63	* 3209 A	* 3209 ATN9
	100	39.7		3.9370	1.5630	75	53	2.24	6 700	6 700	1.4	* 3309 A	* 3309 ATN9
	100	39.7		3.9370	1.5630	61.8	52	2.2	6 000	6 300	1.5	3309 DNRCBM	-
	100	39.7		3.9370	1.5630	79.3	69.5	3	6 000	6 300	1.6	3309 DMA	-
50	90	30.2	1.9685	3.5433	1.1890	51	39	1.66	7 000	7 000	0.66	* 3210 A	* 3210 ATN9
	110	44.4		4.3307	1.7480	90	64	2.75	6 000	6 000	1.95	* 3310 A	* 3310 ATN9
	110	44.4		4.3307	1.7480	81.9	69.5	3	5 300	5 600	1.95	3310 DNRCBM	-
	110	44.4		4.3307	1.7480	93.6	85	3.6	5 300	5 600	2.15	3310 DMA	-
55	100	33.3	2.1654	3.9370	1.3110	60	47.5	2	6 300	6 300	1.05	* 3211 A	* 3211 ATN9
	120	49.2		4.7244	1.9370	112	81.5	3.45	5 300	5 300	2.55	* 3311 A	-
	120	49.2		4.7244	1.9370	95.6	83	3.55	4 800	5 000	2.55	3311 DNRCBM	-
	120	49.2		4.7244	1.9370	111	100	4.3	4 800	5 000	2.8	3311 DMA	-
60	110	36.5	2.3622	4.3307	1.4370	73.5	58.5	2.5	5 600	5 600	1.4	* 3212 A	* 3212 ATN9
	130	54		5.1181	2.1260	127	95	4.05	5 000	5 000	3.25	* 3312 A	-
65	120	38.1	2.5591	4.7244	1.5000	80.6	73.5	3.1	4 500	4 800	1.75	3213 A	-
	140	58.7		5.5118	2.3110	146	110	4.55	4 500	4 500	4.1	* 3313 A	-
	140	58.7		5.5118	2.3110	138	122	5.1	4 300	4 500	4	3313 DNRCBM	-

* SKF Explorer bearing

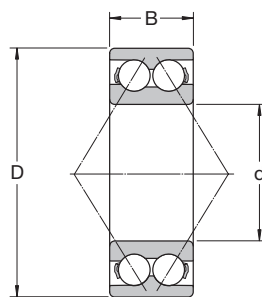
Double row angular contact ball bearings

d 70 - 110 mm

d 2.781 - 4.370 in

d 40 - 80 mm

d 1.575 - 3.150 in



30° contact angle

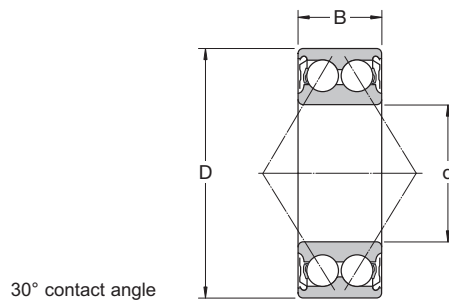
Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic	static		Reference speed	Limiting speed		Bearing with metal cage	polyamide cage
			in			kN		kN	r/min		kg	-	
70	125	39.7	2.7559	4.9213	1.5630	88.4	80	3.4	4 300	4 500	1.9	3214 A	-
	150	63.5		5.9055	2.5000	153	125	5	4 000	4 000	5.05	3314 A	-
75	130	41.3	2.9528	5.1181	1.6260	95.6	88	3.75	4 300	4 500	2.1	3215 A	-
	160	68.3		6.2992	2.6890	176	140	5.5	4 000	4 000	5.55	* 3315 A	-
80	140	44.4	3.1496	5.5118	1.7480	106	95	3.9	4 000	4 300	2.65	3216 A	-
	170	68.3		6.6929	2.6890	182	156	6	3 400	3 600	6.8	3316 A	-
	170	68.3		6.6929	2.6890	190	196	7.35	3 400	3 600	7.55	3316 DMA	-
85	150	49.2	3.3465	5.9055	1.9370	124	110	4.4	3 600	3 800	3.4	3217 A	-
	180	73		7.0866	2.8740	195	176	6.55	3 200	3 400	8.3	3317 A	-
90	160	52.4	3.5433	6.2992	2.0630	130	120	4.55	3 400	3 600	4.15	3218 A	-
	190	73		7.4803	2.8740	195	180	6.4	3 000	3 200	9.25	3318 A	-
	190	73		7.4803	2.8740	225	250	8.8	3 000	3 200	10	3318 DMA	-
95	170	55.6	3.7402	6.6929	2.1890	159	146	5.4	3 200	3 400	5	3219 A	-
	200	77.8		7.8740	3.0630	225	216	7.5	2 800	3 000	11	3319 A	-
	200	77.8		7.8740	3.0630	242	275	9.5	2 800	3 000	12	3319 DMA	-
100	180	60.3	3.9370	7.0866	2.3740	178	166	6	3 000	3 200	6.1	3220 A	-
	215	82.6		8.4646	3.2520	255	255	8.65	2 600	2 800	13.5	3320 A	-
110	200	69.8	4.3307	7.8740	2.7480	212	212	7.2	2 800	2 800	8.8	3222 A	-
	240	92.1		9.4488	3.6260	291	305	9.8	2 400	2 600	19	3322 A	-

Designation	Principal Dimensions						Basic Load Ratings				Speed Rating			Mass	
	d		D		B		dynamic		static		Lubrication			-	
	mm	in	mm	in	mm	in	N	lbf	N	lbf	rpm	rpm	rpm	kg	lb
5408 A	40	1.5748	110	4.3307	49.2	1-15/16	88 400	19 900	57 000	12 800	-	4 300	5 600	2.30	5.05
5409 A	45	1.7717	120	4.7244	54.0	2-1/8	112 000	25 200	78 000	17 600	-	4 000	5 300	3.00	6.60
5410 A	50	1.9685	130	5.1181	58.7	2-5/16	143 000	32 200	102 000	23 000	-	3 600	4 800	3.70	8.15
5411 A	55	2.1654	140	5.5118	63.5	2-1/2	146 000	32 900	102 000	23 000	-	3 200	4 300	4.70	10.50
5412 A	60	2.3622	150	5.9055	66.7	2-5/8	159 000	35 800	114 000	25 700	-	3 000	4 000	5.70	12.50
5413 A	65	2.5591	160	6.2992	71.4	2-13/16	195 000	43 900	156 000	35 100	-	2 800	3 800	6.75	15.00
5414 A	70	2.7559	180	7.0866	79.4	3-1/8	199 000	44 800	156 000	35 100	-	2 400	3 400	9.90	22.00
5415 A	75	2.9528	190	7.4803	82.55	3-1/4	225 000	50 600	190 000	42 800	-	2 200	3 200	11.16	24.60
5416 A	80	3.1496	200	7.8740	87.31	3-7/16	238 000	53 600	208 000	46 800	-	2 000	3 000	13.00	28.80

* SKF Explorer bearing

Sealed double row angular contact ball bearings

d 10 - 75 mm
d 0.394 - 2.953 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Limiting speeds		Mass	Designations	
d	D	B	d	D	B	dynamic C	static C_0		Bearing with shields	seals		Bearing with shields	seals
mm			in			kN		kN		r/min		kg	
10	30	14	0.394	1.181	0.551	7.61	4.3	0.183	24 000	17 000	0.051	3200 A-2Z	3200 A-2RS1
12	32	15.9	0.472	1.260	0.626	10.1	5.6	0.24	22 000	15 000	0.058	3201 A-2Z	3201 A-2RS1
15	35	15.9	0.591	1.378	0.626	11.2	6.8	0.285	18 000	14 000	0.066	3202 A-2Z	3202 A-2RS1
	42	19		1.654	0.748	15.1	9.3	0.4	16 000	12 000	0.13	3302 A-2Z	3302 A-2RS1
17	40	17.5	0.669	1.575	0.689	14.3	8.8	0.365	16 000	12 000	0.1	3203 A-2Z	3203 A-2RS1
	47	22.2		1.850	0.874	21.6	12.7	0.54	14 000	11 000	0.18	3303 A-2Z	3303 A-2RS1
20	47	20.6	0.787	1.850	0.811	20	12	0.51	14 000	10 000	0.16	* 3204 A-2Z	* 3204 A-2RS1
	52	22.2		2.047	0.874	23.6	14.6	0.62	13 000	9 000	0.22	* 3304 A-2Z	* 3304 A-2RS1
25	52	20.6	0.984	2.047	0.811	21.6	14.3	0.6	12 000	8 500	0.18	* 3205 A-2Z	* 3205 A-2RS1
	62	25.4		2.441	1.000	32	20.4	0.865	11 000	7 500	0.35	* 3305 A-2Z	* 3305 A-2RS1
30	62	23.8	1.181	2.441	0.937	30	20.4	0.865	10 000	7 500	0.29	* 3206 A-2Z	* 3206 A-2RS1
	72	30.2		2.835	1.189	41.5	27.5	1.16	9 000	6 300	0.52	* 3306 A-2Z	* 3306 A-2RS1
35	72	27	1.378	2.835	1.063	40	28	1.18	9 000	6 300	0.44	* 3207 A-2Z	* 3207 A-2RS1
	80	34.9		3.150	1.374	52	35.5	1.5	8 500	6 000	0.73	* 3307 A-2Z	* 3307 A-2RS1
40	80	30.2	1.575	3.150	1.189	47.5	34	1.43	8 000	5 600	0.57	* 3208 A-2Z	* 3208 A-2RS1
	90	36.5		3.543	1.437	64	44	1.86	7 500	5 000	0.93	* 3308 A-2Z	* 3308 A-2RS1
45	85	30.2	1.772	3.346	1.189	51	39	1.63	7 500	5 300	0.63	* 3209 A-2Z	* 3209 A-2RS1
	100	39.7		3.937	1.563	75	53	2.24	6 700	4 800	1.25	* 3309 A-2Z	* 3309 A-2RS1
50	90	30.2	1.969	3.543	1.189	51	39	1.66	7 000	4 800	0.65	* 3210 A-2Z	* 3210 A-2RS1
	110	44.4		4.331	1.748	90	64	2.75	6 000	4 300	1.7	* 3310 A-2Z	* 3310 A-2RS1
55	100	33.3	2.165	3.937	1.311	60	47.5	2	6 300	4 500	0.91	* 3211 A-2Z	* 3211 A-2RS1
	120	49.2		4.724	1.937	112	81.5	3.45	5 300	3 800	2.65	* 3311 A-2Z	* 3311 A-2RS1
60	110	36.5	2.362	4.331	1.437	73.5	58.5	2.5	5 600	4 000	1.2	* 3212 A-2Z	* 3212 A-2RS1
	130	54		5.118	2.126	127	95	4.05	5 000	–	2.8	* 3312 A-2Z	–
65	120	38.1	2.559	4.724	1.500	80.6	73.5	3.1	4 800	3 600	1.75	3213 A-2Z	3213 A-2RS1
	140	58.7		5.512	2.311	146	110	4.55	4 500	–	4.1	* 3313 A-2Z	–
70	125	39.7	2.756	4.921	1.563	88.4	80	3.4	4 500	–	1.9	3214 A-2Z	–
	150	63.5		5.906	2.500	153	125	5	4 000	–	5.05	3314 A-2Z	–
75	130	41.3	2.953	5.118	1.626	95.6	88	3.75	4 500	–	2.1	3215 A-2Z	–
	160	68.3		6.299	2.689	176	140	5.5	4 000	–	5.6	* 3315 A-2Z	–

* SKF Explorer bearing

Double row angular contact ball bearings

Double Row, 30° Contact Angle

Max Type

Open, Sealed, Shielded, Snap Ring

Series: 5205 E — 5218 E

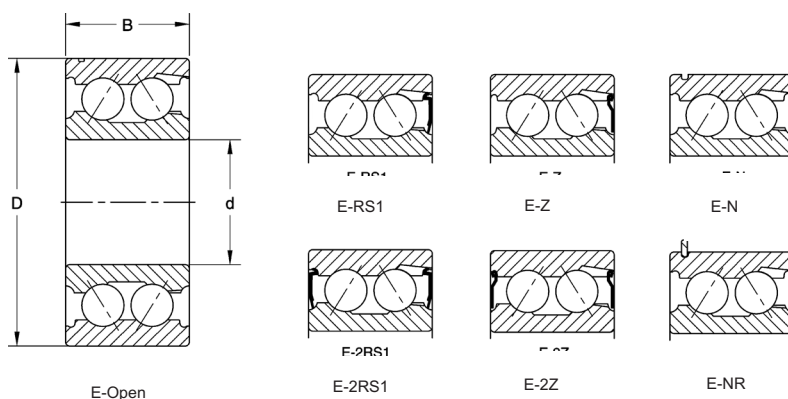
Size: 25 mm — 90 mm

0.9843 in — 3.5433 in

Series: 5305 E — 5316 E

Size: 25 mm — 80 mm

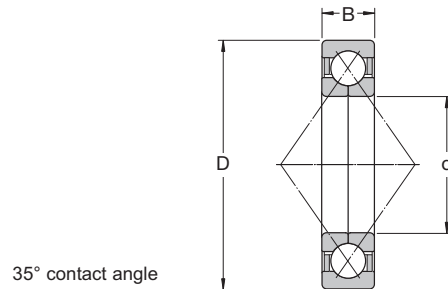
0.9843 in — 3.1496 in



Designation	Principal Dimensions						Basic Load Ratings				Speed Rating			Mass	
	d		D		B		Dynamic C		Static C ₀		Lubrication			kg	lb
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min	r/min		
5205 E	25	0.9843	52	2.0472	20.6	13/16	22 900	5 150	21 200	4 770	8 000	8 000	11 000	0.25	0.55
5206 E	30	1.1811	62	2.4409	23.8	15/16	30 300	6 820	28 000	6 290	7 000	7 000	9 500	0.35	0.77
5207 E	35	1.3780	72	2.8346	27.0	1-1/16	39 100	8 800	36 500	8 210	6 000	6 000	8 000	0.54	1.20
5208 E	40	1.5748	80	3.1496	30.2	1-3/16	49 500	11 100	49 000	11 000	5 600	5 600	7 500	0.73	1.60
5209 E	45	1.7717	85	3.3465	30.2	1-3/16	51 200	11 500	54 000	12 100	5 000	5 000	6 700	0.77	1.70
5210 E	50	1.9685	90	3.5433	30.2	1-3/16	53 900	12 100	58 500	13 200	4 800	4 800	6 300	0.82	1.80
5211 E	55	2.1654	100	3.9370	33.3	1-5/16	66 000	14 900	76 500	17 200	4 300	4 300	5 600	1.15	2.55
5212 E	60	2.3622	110	4.3307	36.5	1-7/16	78 100	17 600	88 000	19 800	3 800	3 800	5 000	1.50	3.30
5213 E	65	2.5591	120	4.7244	38.1	1-1/2	88 000	19 800	106 000	23 800	3 600	3 600	4 800	1.95	4.30
5214 E	70	2.7559	125	4.9213	39.7	1-9/16	101 000	22 700	125 000	28 100	3 200	3 200	4 300	2.15	4.75
5215 E	75	2.9528	130	5.1181	41.3	1-5/8	108 000	24 300	137 000	30 800	3 200	3 200	4 300	2.50	5.50
5216 E	80	3.1496	140	5.5118	44.4	1-3/4	128 000	28 800	160 000	36 000	—	2 800	3 800	3.00	6.60
5217 E	85	3.3465	150	5.9055	49.2	1-15/16	142 000	32 000	176 000	39 600	—	2 600	3 600	3.70	8.15
5218 E	90	3.5433	160	6.2992	52.4	2-1/16	151 000	34 000	193 000	43 400	—	2 400	3 400	4.55	10.00
5305 E	25	0.9843	62	2.4409	25.4	1	34 100	7 670	30 500	6 860	7 500	7 500	10 000	0.39	0.86
5306 E	30	1.1811	72	2.8346	30.2	1-3/16	46 800	10 500	43 000	9 670	6 300	6 300	8 500	0.59	1.30
5307 E	35	1.3780	80	3.1496	34.9	1-3/8	52 300	11 800	48 000	10 800	5 600	5 600	7 500	0.86	1.90
5308 E	40	1.5748	90	3.5433	36.5	1-7/16	67 100	15 100	65 500	14 700	5 000	5 000	6 700	1.15	2.55
5309 E	45	1.7717	100	3.9370	39.7	1-9/16	80 900	18 200	80 000	18 000	4 500	4 500	7 000	1.50	3.30
5310 E	50	1.9685	110	4.3307	44.4	1-3/4	95 200	21 400	95 000	21 400	4 000	4 000	5 300	2.00	4.40
5311 E	55	2.1654	120	4.7244	49.2	1-15/16	119 000	26 800	122 000	27 400	3 800	3 800	5 000	2.65	5.85
5312 E	60	2.3622	130	5.1181	54.0	2-1/8	134 000	30 200	143 000	32 100	3 400	3 400	4 500	3.30	7.30
5313 E	65	2.5591	140	5.5118	58.7	2-5/16	154 000	34 700	163 000	36 600	3 200	3 200	4 300	4.20	9.25
5314 E	70	2.7559	150	5.9055	63.5	2-1/2	172 000	38 700	186 000	41 800	2 800	2 800	3 800	5.00	11.00
5315 E	75	2.9528	160	6.2992	68.3	2-11/16	187 000	42 100	208 000	46 800	—	2 600	3 600	6.35	14.00
5316 E	80	3.1496	170	6.6929	68.3	2-11/16	201 000	45 200	236 000	53 100	—	2 400	3 400	7.25	16.00

Four-point contact ball bearings

d 15 - 90 mm
d 0.591 - 3.543 in

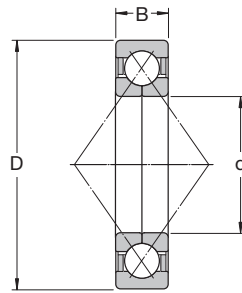


Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic	static		Reference speed	Limiting speed		Bearing with locating slots	without loc. slots
			in				kN		kN	r/min	kg	-	
15	35	11	0.591	1.378	0.433	12.7	8.3	0.36	22 000	36 000	0.062	QJ 202 N2MA	-
17	40	12	0.669	1.575	0.472	15.9	10.6	0.45	19 000	30 000	0.082	QJ 203 N2MA	QJ 203 MA
	47	14		1.850	0.551	23.4	15	0.64	17 000	28 000	0.14	QJ 303 N2MA	-
20	52	15	0.787	2.047	0.591	29.6	20	0.85	15 000	24 000	0.18	QJ 304 N2MA	QJ 304 MA
25	52	15	0.984	2.047	0.591	25.1	20	0.83	14 000	22 000	0.16	QJ 205 N2MA	QJ 205 MA
	62	17		2.441	0.669	39	28	1.18	12 000	20 000	0.29	QJ 305 N2MA	QJ 305 MA
30	62	16	1.181	2.441	0.630	35.1	28.5	1.2	12 000	19 000	0.24	QJ 206 N2MA	QJ 206 MA
	72	19		2.835	0.748	49.4	38	1.63	10 000	17 000	0.42	QJ 306 N2MA	QJ 306 MA
35	72	17	1.378	2.835	0.669	46.2	39	1.63	10 000	17 000	0.36	QJ 207 N2MA	QJ 207 MA
	80	21		3.150	0.827	59.2	46.5	1.96	9 500	15 000	0.57	QJ 307 N2MA	QJ 307 MA
40	80	18	1.575	3.150	0.709	52.7	45	1.9	9 000	15 000	0.45	QJ 208 N2MA	QJ 208 MA
	90	23		3.543	0.906	71.5	58.5	2.45	8 500	14 000	0.78	QJ 308 N2MA	QJ 308 MA
45	85	19	1.772	3.346	0.748	58.5	51	2.16	8 500	14 000	0.52	-	QJ 209 MA
	100	25		3.937	0.984	93.6	76.5	3.25	7 500	12 000	1.05	QJ 309 N2MA	QJ 309 MA
50	90	20	1.969	3.543	0.787	61.8	56	2.4	7 500	13 000	0.59	QJ 210 N2MA	QJ 210 MA
	110	27		4.331	1.063	111	91.5	3.9	6 700	11 000	1.35	-	QJ 310 MA
55	100	21	2.165	3.937	0.827	79.3	76.5	3.2	7 000	11 000	0.77	QJ 211 N2MA	QJ 211 MA
	120	29		4.724	1.142	127	108	4.55	6 000	10 000	1.75	QJ 311 N2MA	QJ 311 MA
60	110	22	2.362	4.331	0.866	92.3	86.5	3.65	6 300	10 000	0.99	QJ 212 N2MA	QJ 212 MA
	130	31		5.118	1.220	146	125	5.3	5 600	9 000	2.15	QJ 312 N2MA	QJ 312 MA
65	120	23	2.559	4.724	0.906	104	104	4.4	5 600	9 500	1.2	QJ 213 N2MA	QJ 213 MA
	140	33		5.512	1.299	165	146	6.1	5 300	8 500	2.7	-	QJ 313 MA
70	125	24	2.756	4.921	0.945	114	114	4.8	5 600	9 000	1.32	QJ 214 N2MA	QJ 214 MA
	150	35		5.906	1.378	186	166	6.7	4 800	8 000	3.15	QJ 314 N2MA	QJ 314 MA
75	130	25	2.953	5.118	0.984	117	122	5.2	5 300	8 500	1.45	QJ 215 N2MA	QJ 215 MA
	160	37		6.299	1.457	199	186	7.35	4 500	7 500	3.9	QJ 315 N2MA	-
80	140	26	3.150	5.512	1.024	138	146	5.85	4 800	8 000	1.85	QJ 216 N2MA	QJ 216 MA
	170	39		6.693	1.535	216	208	8	4 300	7 000	4.6	QJ 316 N2MA	-
85	150	28	3.346	5.906	1.102	148	160	6.2	4 500	7 500	2.25	QJ 217 N2MA	QJ 217 MA
	180	41		7.087	1.614	234	236	8.65	4 000	6 700	5.45	QJ 317 N2MA	-
90	160	30	3.543	6.299	1.181	174	186	6.95	4 300	7 000	2.75	QJ 218 N2MA	-
	190	43		7.480	1.693	265	285	10.2	3 800	6 300	6.45	QJ 318 N2MA	-

Four-point contact ball bearings

d 95 - 200 mm

d 3.740 - 7.874 in



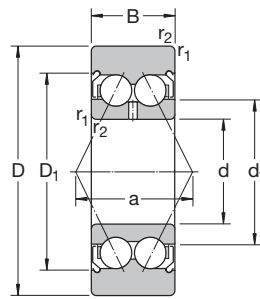
35° contact angle

Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic	static		Reference speed	Limiting speed		Bearing with locating slots	without loc. slots
mm			in			kN		kN	r/min		kg	–	
95	170	32	3.740	6.693	1.260	199	212	7.8	4 000	6 700	3.35	QJ 219 N2MA	–
	200	45		7.874	1.772	286	315	11	3 600	6 000	7.45	QJ 319 N2MA	–
100	180	34	3.937	7.087	1.339	225	240	8.65	3 800	6 300	4.05	QJ 220 N2MA	–
	215	47		8.465	1.850	307	340	11.6	3 400	5 600	9.3	QJ 320 N2MA	–
110	200	38	4.331	7.874	1.496	265	305	10.4	3 400	5 600	5.6	QJ 222 N2MA	–
	240	50		9.449	1.969	390	475	15	3 000	4 800	12.5	QJ 322 N2MA	–
120	215	40	4.724	8.465	1.575	286	340	11.2	3 200	5 000	6.95	QJ 224 N2MA	–
	260	55		10.236	2.165	390	490	15	2 800	4 500	16	QJ 324 N2MA	–
130	230	40	5.118	9.055	1.575	296	365	11.6	2 800	4 800	7.75	QJ 226 N2MA	–
	280	58		11.024	2.283	423	560	16.6	2 600	4 000	19.5	QJ 326 N2MA	–
140	250	42	5.512	9.843	1.654	325	440	13.2	2 600	4 300	9.85	QJ 228 N2MA	–
	300	62		11.811	2.441	468	640	18.6	2 400	3 800	24	QJ 328 N2MA	–
150	270	45	5.906	10.630	1.772	377	530	15.3	2 400	4 000	12.5	QJ 230 N2MA	–
	320	65		12.598	2.559	494	710	19.6	2 200	3 600	29	QJ 330 N2MA	–
160	290	48	6.299	11.417	1.890	423	620	17.6	2 200	3 800	15.5	QJ 232 N2MA	–
	340	68		13.386	2.677	540	815	21.6	2 000	3 400	34.5	QJ 332 N2MA	–
170	310	52	6.693	12.205	2.047	436	670	18.3	2 200	3 400	19.5	QJ 234 N2MA	–
	360	72		14.173	2.835	618	965	25	1 900	3 200	41.5	QJ 334 N2MA	–
180	320	52	7.087	12.598	2.047	449	710	19	2 000	3 400	20.5	QJ 236 N2MA	–
	380	75		14.961	2.953	637	1 020	26	1 800	3 000	47.5	QJ 336 N2MA	–
190	400	78	7.480	15.748	3.071	702	1 160	28.5	1 700	2 800	49	QJ 338 N2MA	–
200	360	58	7.874	14.173	2.283	540	915	23.2	1 800	3 000	28.5	QJ 240 N2MA	–

Double row cam rollers

d 32 - 80 mm

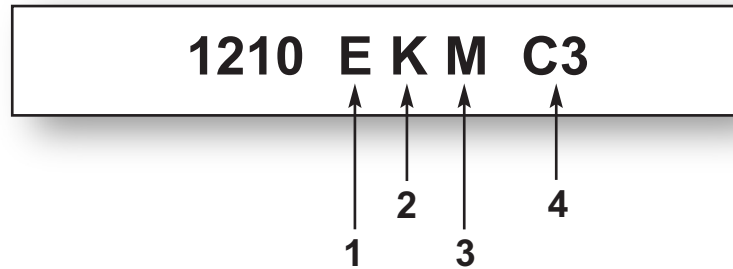
d 1.260 - 3.150 in



Dimensions													Limiting speed	Mass	Designations	
D	B	d	D	B	d	d_1	D_1	$r_{1,2}$ Min	a	C	C_0	P_u			Cam roller with crowned runner surface	cylindrical runner surface
mm			in							kN		kN	r/min	kg	—	
32	14	10	1.260	0.551	0.394	17.7	25	0.6	15	7.15	3.8	0.16	16 000	0.062	305800 C-2Z	—
35	15.9	12	1.378	0.626	0.472	19.1	27.7	0.6	16.5	9.56	4.9	0.208	14 000	0.078	305801 C-2Z	305701 C-2Z
40	15.9	15	1.575	0.626	0.591	22.1	30.7	0.6	18	10.6	5.85	0.25	12 000	0.1	305802 C-2Z	305702 C-2Z
47	17.5	17	1.850	0.689	0.669	25.2	35	0.6	20	13.5	7.8	0.325	11 000	0.16	305803 C-2Z	305703 C-2Z
52	20.6	20	2.047	0.811	0.787	29.4	40.9	1	24	17.2	10	0.425	9 500	0.22	305804 C-2Z	305704 C-2Z
62	20.6	25	2.441	0.811	0.984	34.4	45.9	1	26.5	19.5	12.5	0.53	8 000	0.32	305805 C-2Z	305705 C-2Z
72	23.8	30	2.835	0.937	1.181	41.4	55.2	1	31	27.6	18.6	0.8	6 700	0.49	305806 C-2Z	305706 C-2Z
80	27	35	3.150	1.063	1.378	48.1	63.9	1.1	36.5	33.2	21.2	0.9	5 600	0.65	305807 C-2Z	305707 C-2Z



Self-Aligning Ball Bearings



<hr/> <p>1. Internal Design</p> <hr/> <p>No suffix Standard internal design</p> <p>E Reinforced ball set (increased capacity)</p> <hr/> <p>2. Variations</p> <hr/> <p>K Bearing with 1:12 tapered bore</p> <p>2RS1 2 rubber seals with metal backing</p> <hr/> <p>3. Cage Designations</p> <hr/> <p>TN9 Fibreglass reinforced Polyamide, ball centred</p> <p>M Machined brass cage, ball centred</p> <p>No symbol Steel, ball centred</p>	<hr/> <p>4. Clearance</p> <hr/> <p>C2 Radial internal clearance < normal</p> <p>CN Normal clearance not shown</p> <p>C3 Radial internal clearance > normal</p> <p>C4 Radial internal clearance > C3</p> <hr/> <p>Lubrication</p> <hr/> <p>MT33 Lithium, Medium temp. 74 cSt @ 40°C, -30°C to + 120°C</p> <p>MT47 Lithium, Medium temp. 70 cSt @ 40°C, -30°C to + 110°C</p>
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Self-aligning ball bearings

Technical Features

Boundary Dimensions In accordance with ISO 15-1981

Tolerances ABEC 1 (Normal)

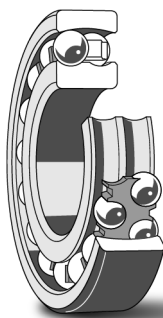
Heat Stabilization 257°F (125°C)

Misalignment	Series 1200	2.5 degrees
	Series 1300	3.0 degrees
	Series 2200	2.5 degrees
	Series 2200-2RS1	1.5 degrees
	Series 2300	3.0 degrees
	Series 2300-2RS1	1.5 degrees

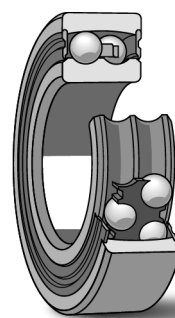
Cage Material	
Standard	Polyamide (TN9)
Optional	Machined brass (M) large bearings Steel no symbol

Axial Load – max on sleeves	$F_{ap} = 3 \times B \times d$ where B = bearing width in mm d = bearing bore in mm F_{ap} = axial load in Newtons
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Seals 2RS1 synthetic rubber seals



**Self-Aligning
Ball Bearing (open design)**
(data tables on page 102)



**Self-Aligning
Ball Bearing (sealed design)**
(data tables on page 105)

Table 1 Radial internal clearance of self-aligning ball bearings

Bore diameter d over incl. mm	Radial internal clearance															
	C2				Normal				C3				C4			
	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max
	μm		in		μm		in		μm		in		μm		in	
Bearings with cylindrical bore																
2.5 6	1	8	0.0000	0.0003	5	15	0.0002	0.0006	10	20	0.0004	0.0008	15	25	0.0006	0.0010
6 10	2	9	0.0001	0.0004	6	17	0.0002	0.0007	12	25	0.0005	0.0010	19	33	0.0007	0.0013
10 14	2	10	0.0001	0.0004	6	19	0.0002	0.0007	13	26	0.0005	0.0010	21	35	0.0008	0.0014
14 18	3	12	0.0001	0.0005	8	21	0.0003	0.0008	15	28	0.0006	0.0011	23	37	0.0009	0.0015
18 24	4	14	0.0002	0.0006	10	23	0.0004	0.0009	17	30	0.0007	0.0012	25	39	0.0010	0.0015
24 30	5	16	0.0002	0.0006	11	24	0.0004	0.0009	19	35	0.0007	0.0014	29	46	0.0011	0.0018
30 40	6	18	0.0002	0.0007	13	29	0.0005	0.0011	23	40	0.0009	0.0016	34	53	0.0013	0.0021
40 50	6	19	0.0002	0.0007	14	31	0.0006	0.0012	25	44	0.0010	0.0017	37	57	0.0015	0.0022
50 65	7	21	0.0003	0.0008	16	36	0.0006	0.0014	30	50	0.0012	0.0020	45	69	0.0018	0.0027
65 80	8	24	0.0003	0.0009	18	40	0.0007	0.0016	35	60	0.0014	0.0024	54	83	0.0021	0.0033
80 100	9	27	0.0004	0.0011	22	48	0.0009	0.0019	42	70	0.0017	0.0028	64	96	0.0025	0.0038
100 120	10	31	0.0004	0.0012	25	56	0.0010	0.0022	50	83	0.0020	0.0033	75	114	0.0030	0.0045
120 140	10	38	0.0004	0.0015	30	68	0.0012	0.0027	60	100	0.0024	0.0039	90	135	0.0035	0.0053
Bearings with tapered bore																
18 24	7	17	0.0003	0.0007	13	26	0.0005	0.0010	20	33	0.0008	0.0013	28	42	0.0011	0.0017
24 30	9	20	0.0004	0.0008	15	28	0.0006	0.0011	23	39	0.0009	0.0015	33	50	0.0013	0.0020
30 40	12	24	0.0005	0.0009	19	35	0.0007	0.0014	29	46	0.0011	0.0018	40	59	0.0016	0.0023
40 50	14	27	0.0006	0.0011	22	39	0.0009	0.0015	33	52	0.0013	0.0020	45	65	0.0018	0.0026
50 65	18	32	0.0007	0.0013	27	47	0.0011	0.0019	41	61	0.0016	0.0024	56	80	0.0022	0.0031
65 80	23	39	0.0009	0.0015	35	57	0.0014	0.0022	50	75	0.0020	0.0030	69	98	0.0027	0.0039
80 100	29	47	0.0011	0.0019	42	68	0.0017	0.0027	62	90	0.0024	0.0035	84	116	0.0033	0.0046
100 120	35	56	0.0014	0.0022	50	81	0.0020	0.0032	75	108	0.0030	0.0043	100	139	0.0039	0.0055

Mounting Bearings with Tapered Bore

Self-aligning ball bearings with a tapered bore are always mounted with an interference fit on a tapered shaft seating or an adapter or withdrawal sleeve. As a measure of the degree of interference of the fit, either the reduction in radial internal clearance of the bearing or the axial displacement of the inner ring on its tapered seating is used.

Suitable methods for mounting self-aligning ball bearings with tapered bore are:

- measuring the clearance reduction,
- measuring the lock nut tightening angle,
- measuring the axial drive-up.

Measuring the clearance reduction

When mounting basic design self-aligning ball bearings with the relatively small Normal radial internal clearance, it is generally sufficient to check clearance during the drive-up by turning and swivelling out the outer ring. When the bearing is properly mounted the outer ring can be easily turned but there should be a slight resistance when the outer ring is swivelled out. The bearing will then have the requisite interference fit. In some cases the residual internal clearance may be too small for the application, and a bearing with C3 radial internal clearance should be used instead.

Mounting self-aligning ball bearings with a tapered bore

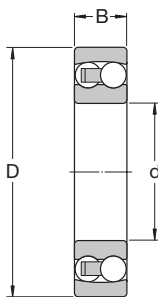
Bore diameter d mm	Tightening angle ¹⁾ a degrees	Axial drive-up s mm
	20	80
25	55	0,22
30	55	0,22
35	70	0,30
40	70	0,30
45	80	0,35
50	80	0,35
55	75	0,40
60	75	0,40
65	80	0,40
70	80	0,40
75	85	0,45
80	85	0,45
85	110	0,60
90	110	0,60
95	110	0,60
100	110	0,60
110	125	0,70
120	125	0,70

¹⁾ Valid for bearings with Normal radial clearance. For bearings with C3 radial clearance the guideline values can be increased by approximately 15 to 20°

Self-aligning ball bearings

d 5 - 35 mm

d 0.197 - 1.378 in



Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic	static		Refer-ence speed	Limiting speed		Bearing with cylindrical bore	tapered bore
mm			in			kN	C ₀	kN	r/min		kg	–	
5	19	6	0.197	0.748	0.236	2.51	0.48	0.025	63 000	45 000	0.009	135 TN9	–
6	19	6	0.236	0.748	0.236	2.51	0.48	0.025	70 000	45 000	0.009	126 TN9	–
7	22	7	0.276	0.866	0.276	2.65	0.56	0.029	63 000	40 000	0.014	127 TN9	–
8	22	7	0.315	0.866	0.276	2.65	0.56	0.029	60 000	40 000	0.014	108 TN9	–
9	26	8	0.354	1.024	0.315	3.9	0.82	0.043	60 000	38 000	0.022	129 TN9	–
10	30	9	0.394	1.181	0.354	5.53	1.18	0.061	56 000	36 000	0.034	1200 ETN9	–
	30	14		1.181	0.551	8.06	1.73	0.09	50 000	34 000	0.047	2200 ETN9	–
12	32	10	0.472	1.260	0.394	6.24	1.43	0.072	50 000	32 000	0.04	1201 ETN9	–
	32	14		1.260	0.551	8.52	1.9	0.098	45 000	30 000	0.053	2201 ETN9	–
	37	12		1.457	0.472	9.36	2.16	0.12	40 000	28 000	0.067	1301 ETN9	–
	37	17		1.457	0.669	11.7	2.7	0.14	38 000	28 000	0.095	2301	–
15	35	11	0.591	1.378	0.433	7.41	1.76	0.09	45 000	28 000	0.049	1202 ETN9	–
	35	14		1.378	0.551	8.71	2.04	0.11	38 000	26 000	0.06	2202 ETN9	–
	42	13		1.654	0.512	10.8	2.6	0.14	34 000	24 000	0.094	1302 ETN9	–
	42	17		1.654	0.669	11.9	2.9	0.15	32 000	24 000	0.12	2302	–
17	40	12	0.669	1.575	0.472	8.84	2.2	0.12	38 000	24 000	0.073	1203 ETN9	–
	40	16		1.575	0.630	10.6	2.55	0.14	34 000	24 000	0.088	2203 ETN9	–
	47	14		1.850	0.551	12.7	3.4	0.18	28 000	20 000	0.12	1303 ETN9	–
	47	19		1.850	0.748	14.6	3.55	0.19	30 000	22 000	0.16	2303	–
20	47	14	0.787	1.850	0.551	12.7	3.4	0.18	32 000	20 000	0.12	1204 ETN9	1204 EKTN9
	47	18		1.850	0.709	16.8	4.15	0.22	28 000	20 000	0.14	2204 ETN9	–
	52	15		2.047	0.591	14.3	4	0.21	26 000	18 000	0.16	1304 ETN9	–
	52	21		2.047	0.827	18.2	4.75	0.24	26 000	19 000	0.22	2304 TN	–
25	52	15	0.984	2.047	0.591	14.3	4	0.21	28 000	18 000	0.14	1205 ETN9	1205 EKTN9
	52	18		2.047	0.709	16.8	4.4	0.23	26 000	18 000	0.16	2205 ETN9	2205 EKTN9
	62	17		2.441	0.669	19	5.4	0.28	22 000	15 000	0.26	1305 ETN9	1305 EKTN9
	62	24		2.441	0.945	24.2	6.55	0.34	22 000	16 000	0.36	2305	–
	62	24		2.441	0.945	27	7.1	0.37	22 000	16 000	0.34	2305 ETN9	–
30	62	16	1.181	2.441	0.630	15.6	4.65	0.24	24 000	15 000	0.22	1206 ETN9	1206 EKTN9
	62	20		2.441	0.787	23.8	6.7	0.35	22 000	15 000	0.26	2206 ETN9	2206 EKTN9
	72	19		2.835	0.748	22.5	6.8	0.36	19 000	13 000	0.39	1306 ETN9	1306 EKTN9
	72	27		2.835	1.063	31.2	8.8	0.45	18 000	13 000	0.5	2306	2306 K
35	72	17	1.378	2.835	0.669	19	6	0.31	20 000	13 000	0.32	1207 ETN9	1207 EKTN9
	72	23		2.835	0.906	30.7	8.8	0.46	18 000	12 000	0.4	2207 ETN9	2207 EKTN9
	80	21		3.150	0.827	26.5	8.5	0.43	16 000	11 000	0.51	1307 ETN9	1307 EKTN9
	80	31		3.150	1.220	39.7	11.2	0.59	16 000	12 000	0.68	2307 ETN9	2307 EKTN9

Self-aligning ball bearings

d 40 - 85 mm

d 1.575 - 3.346 in

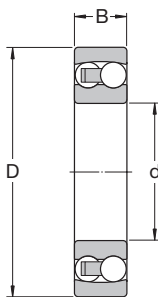


Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic	static		Refer-ence speed	Limiting speed		Bearing with cylindrical bore	tapered bore
			in				kN		kN	r/min	kg	–	
40	80	18	1.575	3.150	0.709	19.9	6.95	0.36	18 000	11 000	0.42	1208 ETN9	1208 EKTN9
	80	23		3.150	0.906	31.9	10	0.51	16 000	11 000	0.51	2208 ETN9	2208 EKTN9
	90	23		3.543	0.906	33.8	11.2	0.57	14 000	9 500	0.68	1308 ETN9	1308 EKTN9
	90	33		3.543	1.299	54	16	0.82	14 000	10 000	0.93	2308 ETN9	2308 EKTN9
45	85	19	1.772	3.346	0.748	22.9	7.8	0.4	17 000	11 000	0.47	1209 ETN9	1209 EKTN9
	85	23		3.346	0.906	32.5	10.6	0.54	15 000	10 000	0.55	2209 ETN9	2209 EKTN9
	100	25		3.937	0.984	39	13.4	0.7	12 000	8 500	0.96	1309 ETN9	1309 EKTN9
	100	36		3.937	1.417	63.7	19.3	1	13 000	9 000	1.25	2309 ETN9	2309 EKTN9
50	90	20	1.969	3.543	0.787	26.5	9.15	0.48	16 000	10 000	0.53	1210 ETN9	1210 EKTN9
	90	23		3.543	0.906	33.8	11.2	0.57	14 000	9 500	0.6	2210 ETN9	2210 EKTN9
	110	27		4.331	1.063	43.6	14	0.72	12 000	8 000	1.2	1310 ETN9	1310 EKTN9
	110	40		4.331	1.575	63.7	20	1.04	14 000	9 500	1.65	2310	2310 K
55	100	21	2.165	3.937	0.827	27.6	10.6	0.54	14 000	9 000	0.71	1211 ETN9	1211 EKTN9
	100	25		3.937	0.984	39	13.4	0.7	12 000	8 500	0.81	2211 ETN9	2211 EKTN9
	120	29		4.724	1.142	50.7	18	0.92	11 000	7 500	1.6	1311 ETN9	1311 EKTN9
	120	43		4.724	1.693	76.1	24	1.25	11 000	7 500	2.1	2311	2311 K
60	110	22	2.362	4.331	0.866	31.2	12.2	0.62	12 000	8 500	0.9	1212 ETN9	1212 EKTN9
	110	28		4.331	1.102	48.8	17	0.88	11 000	8 000	1.1	2212 ETN9	2212 EKTN9
	130	31		5.118	1.220	58.5	22	1.12	9 000	6 300	1.95	1312 ETN9	1312 EKTN9
	130	46		5.118	1.811	87.1	28.5	1.46	9 500	7 000	2.6	2312	2312 K
65	120	23	2.559	4.724	0.906	35.1	14	0.72	11 000	7 000	1.15	1213 ETN9	1213 EKTN9
	120	31		4.724	1.220	57.2	20	1.02	10 000	7 000	1.45	2213 ETN9	2213 EKTN9
	140	33		5.512	1.299	65	25.5	1.25	8 500	6 000	2.45	1313 ETN9	1313 EKTN9
	140	48		5.512	1.890	95.6	32.5	1.66	9 000	6 300	3.25	2313	2313 K
70	125	24	2.756	4.921	0.945	35.8	14.6	0.75	11 000	7 000	1.25	1214 ETN9	–
	125	31		4.921	1.220	44.2	17	0.88	10 000	6 700	1.5	2214	–
	150	35		5.906	1.378	74.1	27.5	1.34	8 500	6 000	3	1314	–
	150	51		5.906	2.008	111	37.5	1.86	8 000	6 000	3.9	2314	–
75	130	25	2.953	5.118	0.984	39	15.6	0.8	10 000	6 700	1.35	1215	1215 K
	130	31		5.118	1.220	58.5	22	1.12	9 000	6 300	1.6	2215 ETN9	2215 EKTN9
	160	37		6.299	1.457	79.3	30	1.43	8 000	5 600	3.55	1315	1315 K
	160	55		6.299	2.165	124	43	2.04	7 500	5 600	4.7	2315	2315 K
80	140	26	3.150	5.512	1.024	39.7	17	0.83	9 500	6 000	1.65	1216	1216 K
	140	33		5.512	1.299	65	25.5	1.25	8 500	6 000	2	2216 ETN9	2216 EKTN9
	170	39		6.693	1.535	88.4	33.5	1.5	7 500	5 300	4.2	1316	1316 K
	170	58		6.693	2.283	135	49	2.24	7 000	5 300	6.1	2316	2316 K
85	150	28	3.346	5.906	1.102	48.8	20.8	0.98	9 000	5 600	2.05	1217	1217 K
	150	36		5.906	1.417	58.5	23.6	1.12	8 000	5 600	2.5	2217	2217 K
	180	41		7.087	1.614	97.5	38	1.7	7 000	4 800	5	1317	1317 K
	180	60		7.087	2.362	140	51	2.28	6 700	4 800	7.05	2317	2317 K

Self-aligning ball bearings

d 90 - 240 mm

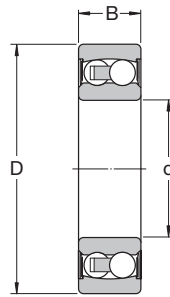
d 3.543 - 9.449 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass kg	Designations	
d	D	B	d	D	B	dynamic C	static C_0		Refer- ence speed	Limiting speed		Bearing with cylindrical bore	tapered bore
mm			in			kN		kN	r/min		kg	–	
90	160	30	3.543	6.299	1.181	57.2	23.6	1.08	8 500	5 300	2.5	1218	1218 K
	160	40		6.299	1.575	70.2	28.5	1.32	7 500	5 300	3.4	2218	2218 K
	190	43		7.480	1.693	117	44	1.93	6 700	4 500	5.8	1318	1318 K
	190	64		7.480	2.520	153	57	2.5	6 300	4 500	8.45	2318 M	2318 KM
95	170	32	3.740	6.693	1.260	63.7	27	1.2	8 000	5 000	3.1	1219	1219 K
	170	43		6.693	1.693	83.2	34.5	1.53	7 000	5 000	4.1	2219 M	2219 KM
	200	45		7.874	1.772	133	51	2.16	6 300	4 300	6.7	1319	1319 K
	200	67		7.874	2.638	165	64	2.75	6 000	4 500	9.8	2319 M	–
100	180	34	3.937	7.087	1.339	68.9	30	1.29	7 500	4 800	3.7	1220	1220 K
	180	46		7.087	1.811	97.5	40.5	1.76	6 700	4 800	5	2220 M	2220 KM
	215	47		8.465	1.850	143	57	2.36	6 000	4 000	8.3	1320	1320 K
	215	73		8.465	2.874	190	80	3.25	5 600	4 000	12.5	2320 M	2320 KM
110	200	38	4.331	7.874	1.496	88.4	39	1.6	6 700	4 300	5.15	1222	1222 K
	200	53		7.874	2.087	124	52	2.12	6 000	4 300	7.1	2222 M	2222 KM
	240	50		9.449	1.969	163	72	2.75	5 300	3 600	12	1322 M	1322 KM
120	215	42	4.724	8.465	1.654	119	53	2.12	6 300	4 000	6.75	1224 M	1224 KM
130	230	46	5.118	9.055	1.811	127	58.5	2.24	5 600	3 600	8.3	1226 M	
150	225	56	5.906	8.858	2.205	57.2	23.6	0.88	5 600	3 400	7.5	13030	
180	280	74	7.087	11.024	2.913	95.6	40	1.34	4 500	2 800	16	13036	
200	280	60	7.874	11.024	2.362	60.5	29	0.97	4 300	2 600	10.7	13940	
220	300	60	8.661	11.811	2.362	60.5	30.5	0.97	3 800	2 400	11	13944	
240	320	60	9.449	12.598	2.362	60.5	32	0.98	3 800	2 200	11.3	13948	

Sealed self-aligning ball bearings

d 10 - 70 mm
d 0.394 - 2.756 in

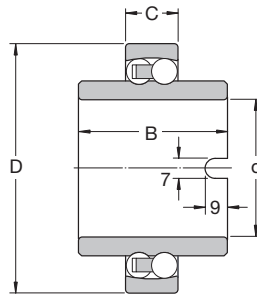


Principal dimensions						Basic load ratings		Fatigue load limit P_u	Limiting speed	Mass kg	Designations	
d	D	B	d	D	B	C	C_0				Bearing with cylindrical bore	tapered bore
mm			in			kN		kN	r/min		–	
10	30	14	0.394	1.181	0.551	5.53	1.18	0.06	17 000	0.048	2200 E-2RS1TN9	–
12	32	14	0.472	1.260	0.551	6.24	1.43	0.08	16 000	0.053	2201 E-2RS1TN9	–
15	35	14	0.591	1.378	0.551	7.41	1.76	0.09	14 000	0.058	2202 E-2RS1TN9	–
	42	17		1.654	0.669	10.8	2.6	0.14	12 000	0.11	2302 E-2RS1TN9	–
17	40	16	0.669	1.575	0.630	8.84	2.2	0.12	12 000	0.089	2203 E-2RS1TN9	–
	47	19		1.850	0.748	12.7	3.4	0.18	11 000	0.16	2303 E-2RS1TN9	–
20	47	18	0.787	1.850	0.709	12.7	3.4	0.18	10 000	0.14	2204 E-2RS1TN9	–
	52	21		2.047	0.827	14.3	4	0.21	9 000	0.21	2304 E-2RS1TN9	–
25	52	18	0.984	2.047	0.709	14.3	4	0.21	9 000	0.16	2205 E-2RS1TN9	2205 E-2RS1KTN9
	62	24		2.441	0.945	19	5.4	0.28	7 500	0.34	2305 E-2RS1TN9	–
30	62	20	1.181	2.441	0.787	15.6	4.65	0.24	7 500	0.26	2206 E-2RS1TN9	2206 E-2RS1KTN9
	72	27		2.835	1.063	22.5	6.8	0.36	6 700	0.51	2306 E-2RS1TN9	–
35	72	23	1.378	2.835	0.906	19	6	0.31	6 300	0.41	2207 E-2RS1TN9	2207 E-2RS1KTN9
	80	31		3.150	1.220	26.5	8.5	0.43	5 600	0.7	2307 E-2RS1TN9	–
40	80	23	1.575	3.150	0.906	19.9	6.95	0.36	5 600	0.5	2208 E-2RS1TN9	2208 E-2RS1KTN9
	90	33		3.543	1.299	33.8	11.2	0.57	5 000	0.96	2308 E-2RS1TN9	–
45	85	23	1.772	3.346	0.906	22.9	7.8	0.4	5 300	0.53	2209 E-2RS1TN9	2209 E-2RS1KTN9
	100	36		3.937	1.417	39	13.4	0.7	4 500	1.3	2309 E-2RS1TN9	–
50	90	23	1.969	3.543	0.906	22.9	8.15	0.42	4 800	0.57	2210 E-2RS1TN9	2210 E-2RS1KTN9
	110	40		4.331	1.575	43.6	14	0.72	4 000	1.65	2310 E-2RS1TN9	–
55	100	25	2.165	3.937	0.984	27.6	10.6	0.54	4 300	0.79	2211 E-2RS1TN9	2211 E-2RS1KTN9
60	110	28	2.362	4.331	1.102	31.2	12.2	0.62	3 800	1.05	2212 E-2RS1TN9	–
65	120	31	2.559	4.724	1.220	35.1	14	0.72	3 600	1.4	2213 E-2RS1TN9	2213 E-2RS1KTN9
70	125	31	2.756	4.921	1.220	35.8	14.6	0.75	3 400	1.45	2214 E-2RS1TN9	–

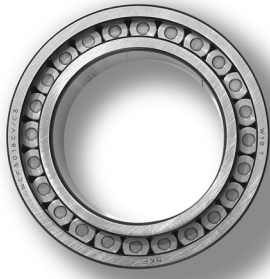
Self-aligning ball bearings with extended inner ring

d 20 - 60 mm

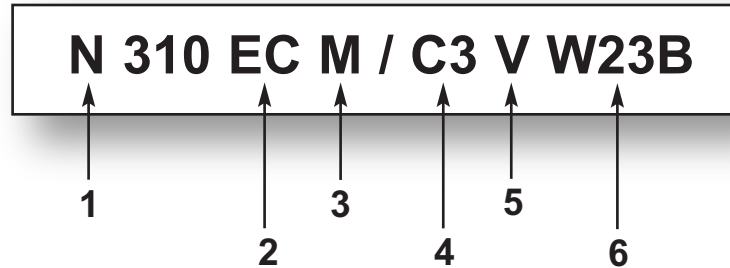
d 0.787 - 2.362 in



Principal dimensions								Basic load ratings		Fatigue load limit P_u	Limiting speed	Mass	Designation
d	D	C	B	d	D	C	B	dynamic	static				
mm				in				kN		kN	r/min	kg	—
20	47	14	40	0.787	1.850	0.551	1.575	12.7	3.40	0.18	9 000	0.18	11204 ETN9
25	52	15	44	0.984	2.047	0.591	1.732	14.3	4.00	0.21	8 000	0.22	11205 ETN9
30	62	16	48	1.181	2.441	0.630	1.890	15.6	4.65	0.24	6 700	0.35	11206 TN9
35	72	17	52	1.378	2.835	0.669	2.047	15.9	5.10	0.27	5 600	0.54	11207 TN9
40	80	18	56	1.575	3.150	0.709	2.205	19.0	6.55	0.34	5 000	0.72	11208 TN9
45	85	19	58	1.772	3.346	0.748	2.283	21.6	7.35	0.38	4 500	0.77	11209 TN9
50	90	20	58	1.969	3.543	0.787	2.283	22.9	8.15	0.42	4 300	0.85	11210 TN9
60	110	22	62	2.362	4.331	0.866	2.441	30.2	11.6	0.6	3 400	1.15	11212 TN9



Cylindrical Roller Bearings



1. Basic Design	2. Internal Design	5. Variations
<p>N Two integral flanges on inner ring, flangeless outer ring</p> <p>NCF Full complement, two flanges on inner ring, one flange on outer ring, with snap ring</p> <p>NJ One integral flange on inner ring, two flanges on outer ring</p> <p>NNJG Full complement with one flange on inner ring and two flanges on outer</p> <p>NNC Double row CRB with one outer ring integral flange and one flange ring</p> <p>NNCF Two-row, full complement, three flanges on inner ring, one flange on outer ring with snap ring</p> <p>NNCL Double row CRB with no outer ring integral flanges, one centrally located snap ring</p> <p>NNF Two-row, full complement</p> <p>NU Two integral flanges on outer ring, flangeless inner ring</p> <p>NUP Two integral flanges on outer ring, one integral flange on inner ring and one loose flange on inner ring</p> <p>RN N type without outer ring</p> <p>RNU NU type without inner ring</p>	<p>EC Increased capacity plus improved roller end to flange contact</p> <hr/> <p style="text-align: center;">3. Cage Designations</p> <hr/> <p>J Pressed steel cage, rolling element centred</p> <p>M Machined brass cage, rolling element centred</p> <p>MA Machined brass cage, flange outer ring centred</p> <p>ML One piece form turned, window type brass cage, ring centred</p> <p>M2 Solid brass drilled cage, roller guided</p> <p>P Injection moulded cage of fiberglass reinforced polyamide.</p> <p>PH PEEK, hi-temp polyether ether ketone cage</p> <hr/> <p style="text-align: center;">4. Radial Internal Clearance</p> <hr/> <p>C1 Clearance < C2</p> <p>C2 Clearance < Normal</p> <p>C0,CN Normal clearance (no symbol shown)</p> <p>C3 Clearance > Normal</p> <p>C4 Clearance > C3</p>	<p>BV V + surface treated rollers</p> <p>2LS Two land riding contact seals</p> <p>V Full complement bearing without cage</p> <hr/> <p style="text-align: center;">6. Special Features</p> <hr/> <p>VA 301 Special bearing specifications for traction motors</p> <p>VA 3091 VA 301 + VL 0241</p> <p>VL 0241 Aluminum oxide coating on inner ring for electrical insulation</p> <p>VQ 015 Inner ring with crowned raceway for increased permissible misalignment</p> <p>W23B Special features for traction motor bearings</p>

Cylindrical roller bearings

Technical Features

Boundary Dimensions In accordance with ISO 15-1998

Tolerances	Boundary dimensions	RBEC 1 (normal)
	Running accuracy	RBEC 3 (P6)

Heat Stabilization 302°F (150°C)

Misalignment 4 minutes of arc for series N200, 300, 400 and 1000, 1800
3 minutes of arc for series N2200 and 2300 2900, 3000

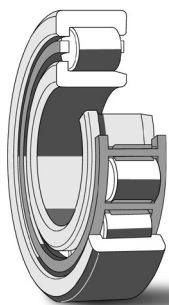
Cage Material

Standard Polyamide (P)

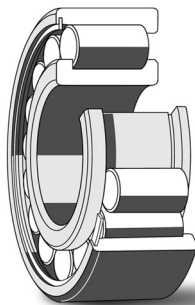
Optional Machined brass (M) and Pressed steel (J)

Axial Load – max Contact SKF Application Engineering

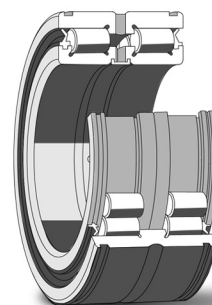
Seals 2LS seals on NNF series only



**Single Row
Cylindrical Roller Bearing**
(data tables on page 112)



**Full Complement, Single Row
Cylindrical Roller Bearing**
(data tables on page 128)



**Full Complement, Double Row
Cylindrical Roller Bearing**
(data tables on page 133)

Internal Clearance

Radial internal clearance

SKF single row cylindrical roller bearings are produced with Normal radial internal clearance as standard; the majority of the bearings are also available with C3 radial internal clearance and some with the appreciably greater C4 clearance.

The values for the clearance correspond to DIN 620, Part 4 for the size range covered by this standard and are given in **table 1**. The values apply to bearings before mounting and under zero measuring load.

SKF full complement cylindrical roller bearings are manufactured with Normal or C3 radial internal clearance as standard. The values for the clearance limits correspond to ISO and are shown in **table 1**.

Axial internal clearance

Cylindrical roller bearings of the NUP type can serve to locate shafts in both directions. Axial internal clearance according to **table 2**.

The values given in **table 2** for axial internal clearance should be considered as guideline values. Because of roller tilting during measurement of the axial internal clearance, increases in the clearance are possible. These correspond:

- for bearings of series 10, 2, 3 and 4 to approximately the radial internal clearance and
- for bearings of series 22 and 23 to approximately 2/3 of the radial internal clearance

Special Solutions Using Cylindrical Roller Bearings

SKF also manufactures:

- precision single and double row cylindrical roller bearings for machine tool applications
- double and multi-row cylindrical roller bearings for rolling mill and other heavy engineering applications
- special traction motor roller bearings for railroad applications

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

Table 1 Radial internal clearance of cylindrical roller bearings

Bore diameter d over incl. mm	Radial internal clearance															
	C2				Normal				C3				C4			
	min µm	max in	min µm	max in	min µm	max in	min µm	max in	min µm	max in	min µm	max in	min µm	max in	min µm	max in
- 24	0	25	0.0000	0.0010	20	45	0.0008	0.0018	35	60	0.0014	0.0024	50	75	0.0020	0.0030
24 30	0	25	0.0000	0.0010	20	45	0.0008	0.0018	35	60	0.0014	0.0024	50	75	0.0020	0.0030
30 40	5	30	0.0002	0.0012	25	50	0.0010	0.0020	45	70	0.0018	0.0028	60	85	0.0024	0.0033
40 50	5	35	0.0002	0.0014	30	60	0.0012	0.0024	50	80	0.0020	0.0031	70	100	0.0028	0.0039
50 65	10	40	0.0004	0.0016	40	70	0.0016	0.0028	60	90	0.0024	0.0035	80	110	0.0031	0.0043
65 80	10	45	0.0004	0.0018	40	75	0.0016	0.0030	65	100	0.0026	0.0039	90	125	0.0035	0.0049
80 100	15	50	0.0006	0.0020	50	85	0.0020	0.0033	75	110	0.0030	0.0043	105	140	0.0041	0.0055
100 120	15	55	0.0006	0.0022	50	90	0.0020	0.0035	85	125	0.0033	0.0049	125	165	0.0049	0.0065
120 140	15	60	0.0006	0.0024	60	105	0.0024	0.0041	100	145	0.0039	0.0057	145	190	0.0057	0.0075
140 160	20	70	0.0008	0.0028	70	120	0.0028	0.0047	115	165	0.0045	0.0065	165	215	0.0065	0.0085
160 180	25	75	0.0010	0.0030	75	125	0.0033	0.0049	120	170	0.0047	0.0067	170	220	0.0067	0.0087
180 200	35	90	0.0014	0.0035	90	145	0.0035	0.0057	140	195	0.0055	0.0077	195	250	0.0077	0.0098
200 225	45	105	0.0018	0.0041	105	165	0.0041	0.0065	160	220	0.0063	0.0087	220	280	0.0087	0.0110
225 250	45	110	0.0018	0.0043	110	175	0.0043	0.0069	170	235	0.0067	0.0093	235	300	0.0093	0.0118
250 280	55	125	0.0022	0.0049	125	195	0.0049	0.0077	190	260	0.0075	0.0102	260	330	0.0102	0.0130
280 315	55	130	0.0022	0.0051	130	205	0.0051	0.0081	200	275	0.0079	0.0108	275	350	0.0108	0.0138
315 355	65	145	0.0026	0.0057	145	225	0.0057	0.0089	225	305	0.0089	0.0120	305	385	0.0120	0.0152
355 400	100	190	0.0039	0.0075	190	280	0.0075	0.0110	280	370	0.0110	0.0146	370	460	0.0146	0.0181
400 450	110	210	0.0043	0.0083	210	310	0.0083	0.0122	310	410	0.0122	0.0161	410	510	0.0161	0.0201
450 500	110	220	0.0043	0.0087	220	330	0.0087	0.0130	330	440	0.0130	0.0173	440	550	0.0173	0.0217
500 560	120	240	0.0047	0.0094	240	360	0.0094	0.0142	360	480	0.0142	0.0189	480	600	0.0189	0.0236
560 630	140	260	0.0055	0.0102	260	380	0.0102	0.0150	380	500	0.0150	0.0197	500	620	0.0197	0.0244
630 710	145	285	0.0057	0.0112	285	425	0.0112	0.0167	425	565	0.0167	0.0222	565	705	0.0222	0.0278
710 800	150	310	0.0059	0.0122	310	470	0.0122	0.0185	470	630	0.0185	0.0248	630	790	0.0248	0.0311

Cylindrical roller bearings

Table 2 Axial internal clearance of single row cylindrical roller bearings

Bore diameter d	Axial internal clearance																			
	NUP 2				NUP 3				NUP 4				NUP 22				NUP 23			
	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max
mm	μm	in	μm	in	μm	in	μm	in	μm	in	μm	in	μm	in	μm	in	μm	in	μm	in
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	37	140	0.0015	0.0055	37	140	0.0015	0.0055	-	-	-	-	37	140	0.0015	0.0055	47	155	0.0019	0.0061
20	37	140	0.0015	0.0000	37	140	0.0015	0.0055	-	-	-	-	47	155	0.0019	0.0061	47	155	0.0019	0.0061
25	37	140	0.0015	0.0055	47	155	0.0019	0.0061	-	-	-	-	47	155	0.0019	0.0061	47	155	0.0019	0.0061
30	37	140	0.0015	0.0055	47	155	0.0019	0.0061	-	-	-	-	47	155	0.0019	0.0061	47	155	0.0019	0.0061
35	47	155	0.0019	0.0061	47	155	0.0019	0.0061	55	155	0.0022	0.0061	47	155	0.0019	0.0061	62	180	0.0024	0.0071
40	47	155	0.0019	0.0061	47	155	0.0019	0.0061	55	155	0.0022	0.0061	47	155	0.0019	0.0061	62	180	0.0024	0.0071
45	47	155	0.0019	0.0061	47	155	0.0019	0.0061	55	155	0.0022	0.0061	47	155	0.0019	0.0061	62	180	0.0024	0.0071
50	47	155	0.0019	0.0061	47	155	0.0019	0.0061	70	185	0.0028	0.0073	47	155	0.0019	0.0061	62	180	0.0024	0.0071
55	47	155	0.0019	0.0061	47	155	0.0019	0.0061	70	185	0.0028	0.0073	47	155	0.0019	0.0061	62	180	0.0024	0.0071
60	47	155	0.0019	0.0061	62	180	0.0024	0.0071	70	185	0.0028	0.0073	62	180	0.0024	0.0071	87	230	0.0034	0.0091
65	47	155	0.0019	0.0061	62	180	0.0024	0.0071	70	185	0.0028	0.0073	62	180	0.0024	0.0071	87	230	0.0034	0.0091
70	47	155	0.0019	0.0061	62	180	0.0024	0.0071	70	185	0.0028	0.0073	62	180	0.0024	0.0071	87	230	0.0034	0.0091
75	47	155	0.0019	0.0061	62	180	0.0024	0.0071	70	185	0.0028	0.0073	62	180	0.0024	0.0071	87	230	0.0034	0.0091
80	47	155	0.0019	0.0061	62	180	0.0024	0.0071	-	-	-	-	62	180	0.0024	0.0071	87	230	0.0034	0.0091
85	62	180	0.0024	0.0071	62	180	0.0024	0.0071	-	-	-	-	62	180	0.0024	0.0071	87	230	0.0034	0.0091
90	62	180	0.0024	0.0071	62	180	0.0024	0.0071	-	-	-	-	62	180	0.0024	0.0071	87	230	0.0034	0.0091
95	62	180	0.0024	0.0071	62	180	0.0024	0.0071	-	-	-	-	62	180	0.0024	0.0071	87	230	0.0034	0.0091
100	62	180	0.0024	0.0071	87	230	0.0034	0.0091	-	-	-	-	87	230	0.0034	0.0091	120	315	0.0047	0.0124
105	62	180	0.0024	0.0071	-	-	-	-	-	-	-	-	87	230	0.0034	0.0091	120	315	0.0047	0.0124
110	62	180	0.0024	0.0071	87	230	0.0034	0.0091	-	-	-	-	87	230	0.0034	0.0091	120	315	0.0047	0.0124
120	62	180	0.0024	0.0071	87	230	0.0034	0.0091	-	-	-	-	87	230	0.0034	0.0091	120	315	0.0047	0.0124
130	62	180	0.0024	0.0071	87	230	0.0034	0.0091	-	-	-	-	87	230	0.0034	0.0091	120	315	0.0047	0.0124
140	62	180	0.0024	0.0071	87	230	0.0034	0.0091	-	-	-	-	87	230	0.0034	0.0091	120	315	0.0047	0.0124
150	62	180	0.0024	0.0071	87	230	0.0034	0.0091	-	-	-	-	87	230	0.0034	0.0091	120	315	0.0047	0.0124
160	87	230	0.0034	0.0091	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
170	87	230	0.0034	0.0091	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
180	87	230	0.0034	0.0091	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
190	87	230	0.0034	0.0091	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
200	87	230	0.0034	0.0091	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
220	95	230	0.0037	0.0091	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3 Axial displacement (s) of NU, NJ and N bearing ring relative to opposite ring

Designation	Axial Displacement s		Designation	Axial Displacement s		Designation	Axial Displacement s		Designation	Axial Displacement s	
	mm	in		mm	in		mm	in		mm	in
1005	2	0.079	208 EC	1.4	0.055	2222 EC	3.7	0.146	302 EC	1	0.039
1006	2.1	0.083	209 EC	1.2	0.047	2224 EC	3.8	0.150	303 EC	1	0.039
1007 EC	1	0.039	210 EC	1.5	0.059	2226 EC	4.3	0.169	304 EC	0.9	0.035
1008	2.4	0.094	211 EC	1	0.039	2228 EC	4.4	0.173	305 EC	1.3	0.051
1009 EC	0.9	0.035	212 EC	1.4	0.055	2230 EC	4.9	0.193	306 EC	1.4	0.055
1010	2.5	0.098	213 EC	1.4	0.055	2232 EC	4.5	0.177	307 EC	1.2	0.047
1011 EC	0.5	0.020	214 EC	1.2	0.047	2234 EC	4.2	0.165	308 EC	1.4	0.055
1012	2.9	0.114	215 EC	1.2	0.047	2236 EC	4.2	0.165	309 EC	1.7	0.067
1013	2.9	0.114	216 EC	1.4	0.055	2238 EC	5	0.197	310 EC	1.9	0.075
1014	3	0.118	217 EC	1.5	0.059	2240 EC	5.1	0.201	311 EC	2	0.079
1015	3	0.118	218 EC	1.8	0.071	2244 EC	7.9	0.311	312 EC	2.1	0.083
1016	3.3	0.130	219 EC	1.7	0.067	2248	4.3	0.169	313 EC	2.2	0.087
1017	3.3	0.130	220 EC	1.7	0.067	2252	4.3	0.169	314 EC	1.8	0.071
1018	3.5	0.138	221 EC	2	0.079	2256 EC	10.2	0.402	315 EC	1.8	0.071
1019	3.5	0.138	222 EC	2.1	0.083	2260	5.6	0.220	316 EC	2.1	0.083
1020	3.5	0.138	224 EC	1.9	0.075	2264	5.9	0.232	317 EC	2.3	0.091
1021	3.8	0.150	226 EC	2.1	0.083	2268	8	0.315	318 EC	2.5	0.098
1022	3.8	0.150	228 EC	2.4	0.094	2272	16.7	0.657	319 EC	2.9	0.114
1024	3.8	0.150	N 228	2.5	0.098	2276	8.3	0.327	320 EC	2.9	0.114
1026	4.7	0.185	230 EC	2.5	0.098				321 EC	3.4	0.134
1028	4.4	0.173	232 EC	2.7	0.106				322 EC	3	0.118
1030	4.9	0.193	234 EC	2.9	0.114	2304 EC	1.9	0.075	324 EC	3.7	0.146
1032	5.2	0.205	236 EC	2.9	0.114	2305 EC	2.3	0.091	326 EC	3.7	0.146
1034	5.8	0.228	238 EC	3	0.118	2306 EC	2.4	0.094	328 EC	3.7	0.146
1038	6.1	0.240	240 EC	2.6	0.102	2307 EC	2.7	0.106	N 328	4.2	0.165
1040	7	0.276	244	2.3	0.091	2308 EC	2.9	0.114	330 EC	4	0.157
1044	7.5	0.295	248	3.4	0.134	2309 EC	3.2	0.126	332 EC	4	0.157
1048	7.5	0.295	252	3.4	0.134	2310 EC	3.4	0.134	334	4.6	0.181
1052	8.8	0.346	256	3.8	0.150	2311 EC	3.5	0.138	336	4.4	0.173
1056	8.8	0.346	260	4.8	0.189	2312 EC	3.6	0.142	338 EC	4.3	0.169
1060	6	0.382	264	5.3	0.209	2313 EC	4.7	0.185	340	4	0.157
1064	13.5	0.382				2314 EC	4.8	0.189	344	5.2	0.205
1068	6.5	0.425				2315 EC	4.8	0.189	348	5.6	0.220
1072	6.5	0.425	2203 EC	1.5	0.059	2316 EC	5.1	0.201			
1076	6.5	0.425	2204 EC	2	0.079	2317 EC	5.8	0.228	406	1.6	0.063
1080	7	0.551	2205 EC	1.8	0.071	2318 EC	6	0.382	407	1.7	0.067
1084	11	0.551	2206 EC	1.8	0.071	2319 EC	6.9	0.272	408	2.5	0.098
1088	7	0.579	2207 EC	2.8	0.110	2320 EC	5.9	0.232	409	2.5	0.098
1092	7.8	0.626	2208 EC	1.9	0.075	2322 EC	7.5	0.295	410	2.6	0.102
1096	7.8	0.626	2209 EC	1.7	0.067	2324 EC	7.2	0.283	411	2.6	0.102
10/500	11.2	0.441	2210 EC	1.5	0.059	2326 EC	8.7	0.343	412	2.5	0.098
10/530	10.4	0.409	2211 EC	1.5	0.059	2328 EC	9.7	0.382	413	2.6	0.102
10/560	10	0.484	2212 EC	1.4	0.055	2330 EC	10.5	0.413	414	3.5	0.138
10/600	8.5	0.547	2213 EC	1.9	0.075	2332 EC	11	0.433	415	3.8	0.150
10/710 EC	8	0.673	2214 EC	1.7	0.067	2334	5.2	0.205	416	3.7	0.146
			2215 EC	1.7	0.067	2336	5.1	0.201	417	3.8	0.150
			2216 EC	1.4	0.055	2338 EC	9.5	0.374	418	4.9	0.193
			2217 EC	2	0.079	2340 EC	9.4	0.370	419	5	0.197
202 EC	1	0.039	2218 EC	2.6	0.102	2344 EC	10.4	0.409	420	4.9	0.193
203 EC	1	0.039	2219 EC	3	0.118	2348	6.4	0.252	421	4.9	0.193
204 EC	1	0.039	2220 EC	2.5	0.098	2356	6.6	0.260	422	4.8	0.189
205 EC	1.3	0.051						424	6.3	0.248	
206 EC	1.3	0.051									
207 EC	1.3	0.051									

Speed ratings

The limiting speeds are determined by certain criteria that include the form stability and the strength of cage as mentioned in section "Limiting speeds". The values listed in the product table are valid for the standard cage. To facilitate the estimation of the limiting speed for bearings with an alternative cage or vice-versa, **table 1** provides the appropriate conversion factors.

Table 1

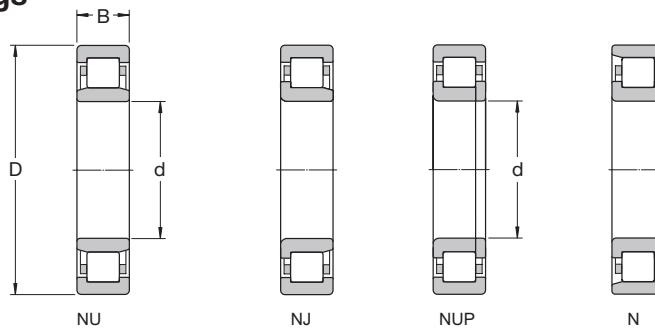
Conversion factors for limiting speeds			
Bearing with standard cage	alternative standard cage		
	P, J, M, MR	MA, MB	ML, MP

P, J, M, MR	1	1.3	1.5
MA, MB	0.75	1	1.2
ML, MP	0.65	0.85	1

Single row cylindrical roller bearings

d 15 - 25 mm

d 0.591 - 0.984 in



Principal dimensions						Basic load ratings		Fatigue load limit	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic C	static C ₀	P _u	Refer- ence speed	Limiting speed	Bearing with standard cage	Bearing with standard cage	Alternative standard cage designs ¹⁾
mm			in			kN		kN	r/min		kg	–	
15	35	11	0.591	1.378	0.433	12.5	10.2	1.22	22 000	26 000	0.047	NU 202 ECP	–
	35	11		1.378	0.433	12.5	10.2	1.22	22 000	26 000	0.049	NJ 202 ECP	–
17	40	12	0.669	1.575	0.472	17.2	14.3	1.73	19 000	22 000	0.068	NU 203 ECP	ML
	40	12		1.575	0.472	17.2	14.3	1.73	19 000	22 000	0.07	NJ 203 ECP	ML
	40	12		1.575	0.472	17.2	14.3	1.73	19 000	22 000	0.073	NUP 203 ECP	ML
	40	12		1.575	0.472	17.2	14.3	1.73	19 000	22 000	0.066	N 203 ECP	
	40	16	1.575	0.630	23.8	21.6	2.65	19 000	22 000	0.092	NU 2203 ECP	–	
	40	16	1.575	0.630	23.8	21.6	2.65	19 000	22 000	0.095	NJ 2203 ECP	–	
	40	16	1.575	0.630	23.8	21.6	2.65	19 000	22 000	0.097	NUP 2203 ECP	–	
	47	14	1.850	0.551	24.6	20.4	2.55	15 000	20 000	0.12	NU 303 ECP	–	
	47	14	1.850	0.551	24.6	20.4	2.55	15 000	20 000	0.12	NJ 303 ECP	–	
	47	14	1.850	0.551	24.6	20.4	2.55	15 000	20 000	0.12	N 303 ECP	–	
20	47	14	0.787	1.850	0.551	25.1	25.2	2.75	16 000	19 000	0.11	NU 204 ECP	ML
	47	14		1.850	0.551	25.1	25.2	2.75	16 000	19 000	0.11	NJ 204 ECP	ML
	47	14		1.850	0.551	25.1	25.2	2.75	16 000	19 000	0.12	NUP 204 ECP	ML
	47	14		1.850	0.551	25.1	25.2	2.75	16 000	19 000	0.11	N 204 ECP	–
	47	18	1.850	0.709	29.7	27.5	3.45	16 000	19 000	0.14	NU 2204 ECP	–	
	47	18	1.850	0.709	29.7	27.5	3.45	16 000	19 000	0.14	NJ 2204 ECP	–	
	52	15	2.047	0.591	35.5	26	3.25	15 000	18 000	0.17	*NU 304 ECP	–	
	52	15	2.047	0.591	35.5	26	3.25	15 000	18 000	0.17	*NJ 304 ECP	–	
	52	15	2.047	0.591	35.5	26	3.25	15 000	18 000	0.16	*NUP 304 ECP	–	
	52	15	2.047	0.591	35.5	26	3.25	15 000	18 000	0.15	*N 304 ECP	–	
	52	21	2.047	0.827	47.5	38	4.8	14 000	18 000	0.21	*NU 2304 ECP	–	
	52	21	2.047	0.827	47.5	38	4.8	14 000	18 000	0.22	*NJ 2304 ECP	–	
	52	21	2.047	0.827	47.5	38	4.8	14 000	18 000	0.22	*NUP 2304 ECP	–	
	25	47	12	0.984	1.850	0.472	14.2	13.2	1.4	18 000	18 000	0.084	NU 1005
52		15	2.047		0.591	28.6	27	3.35	14 000	16 000	0.14	NU 205 ECP	J. ML
52		15	2.047		0.591	28.6	27	3.35	14 000	16 000	0.15	NJ 205 ECP	J. ML
52		15	2.047		0.591	28.6	27	3.35	14 000	16 000	0.14	NUP 205 ECP	ML
52		15	2.047		0.591	28.6	27	3.35	14 000	16 000	0.13	N 205 ECP	–
52		18	2.047		0.709	34.1	34	4.25	14 000	16 000	0.17	NU 2205 ECP	ML
52		18	2.047		0.709	34.1	34	4.25	14 000	16 000	0.18	NJ 2205 ECP	ML
52		18	2.047		0.709	34.1	34	4.25	14 000	16 000	0.17	NUP 2205 ECP	ML
62		17	2.441		0.669	46.5	36.5	4.55	12 000	15 000	0.28	*NU 305 ECP	J. ML
62		17	2.441		0.669	46.5	36.5	4.55	12 000	15 000	0.29	*NJ 305 ECP	J. ML
62		17	2.441		0.669	46.5	36.5	4.55	12 000	15 000	0.25	*NUP 305 ECP	J. ML
62		17	2.441		0.669	46.5	36.5	4.55	12 000	15 000	0.24	*N 305 ECP	–

* SKF Explorer bearing

¹⁾ When ordering bearings with an alternative standard cage, the suffix of the standard cage has to be replaced by the suffix of the cage in question, e.g. NU 203 ECP becomes NU 203 ECML (for speed ratings see page 111)

²⁾ HJ angle rings are available

Single row cylindrical roller bearings

d 25 - 35 mm

d 0.984 - 1.378 in

Principal dimensions						Basic load ratings		Fatigue load limit	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic C	static C ₀	P _u	Refer- ence speed	Limiting speed	Bearing with standard cage	Bearing with standard cage	Alternative standard cage designs ¹⁾
mm			in			kN		kN	r/min		kg	–	
25 cont.	62	24		2.441	0.945	64	55	6.95	12 000	15 000	0.38	*NU 2305 ECP	J. ML
	62	24		2.441	0.945	64	55	6.95	12 000	15 000	0.39	*NJ 2305 ECP	ML
	62	24		2.441	0.945	64	55	6.95	12 000	15 000	0.38	*NUP 2305 ECP	ML
30	55	13	1.181	2.165	0.512	17.9	17.3	1.86	14 000	15 000	0.12	NU 1006	–
	62	16		2.441	0.630	44	36.5	4.55	13 000	14 000	0.23	*NU 206 ECP	J. ML
	62	16		2.441	0.630	44	36.5	4.55	13 000	14 000	0.24	*NJ 206 ECP	J. ML
	62	16		2.441	0.630	44	36.5	4.55	13 000	14 000	0.22	*NUP 206 ECP	ML
	62	16		2.441	0.630	44	36.5	4.55	13 000	14 000	0.2	*N 206 ECP	–
	62	20		2.441	0.787	55	49	6.1	13 000	14 000	0.26	*NU 2206 ECP	J. ML
	62	20		2.441	0.787	55	49	6.1	13 000	14 000	0.27	*NJ 2206 ECP	J. ML
	62	20		2.441	0.787	55	49	6.1	13 000	14 000	0.27	*NUP 2206 ECP	ML
	72	19		2.835	0.748	58.5	48	6.2	11 000	12 000	0.4	*NU 306 ECP	J. M. ML
	72	19		2.835	0.748	58.5	48	6.2	11 000	12 000	0.41	*NJ 306 ECP	J. M. ML
	72	19		2.835	0.748	58.5	48	6.2	11 000	12 000	0.38	*NUP 306 ECP	J. M. ML
	72	19		2.835	0.748	58.5	48	6.2	11 000	12 000	0.36	*N 306 ECP	–
	72	27		2.835	1.063	83	75	9.65	11 000	12 000	0.53	*NU 2306 ECP	ML
	72	27		2.835	1.063	83	75	9.65	11 000	12 000	0.54	*NJ 2306 ECP	ML
	72	27		2.835	1.063	83	75	9.65	11 000	12 000	0.55	*NUP 2306 ECP	ML
	90	23		3.543	0.906	60.5	53	6.8	9 000	11 000	0.75	NU 406	–
	90	23		3.543	0.906	60.5	53	6.8	9 000	11 000	0.77	NJ 406	–
	35	62	14	1.378	2.441	0.551	35.8	38	4.55	12 000	13 000	0.16	NU 1007 ECP
72		17		2.835	0.669	56	48	6.1	11 000	12 000	0.33	*NU 207 ECP	J. M. ML
72		17		2.835	0.669	56	48	6.1	11 000	12 000	0.33	*NJ 207 ECP	J. M. ML
72		17		2.835	0.669	56	48	6.1	11 000	12 000	0.31	*NUP 207 ECP	J. M. ML
72		17		2.835	0.669	56	48	6.1	11 000	12 000	0.3	*N 207 ECP	–
72		23		2.835	0.906	69.5	63	8.15	11 000	12 000	0.4	*NU 2207 ECP	J. ML
72		23		2.835	0.906	69.5	63	8.15	11 000	12 000	0.41	*NJ 2207 ECP	J. ML
72		23		2.835	0.906	69.5	63	8.15	11 000	12 000	0.42	*NUP 2207 ECP	ML
80		21		3.150	0.827	75	63	8.15	9 500	11 000	0.54	*NU 307 ECP	J. M. ML
80		21		3.150	0.827	75	63	8.15	9 500	11 000	0.55	*NJ 307 ECP	J. M. ML
80		21		3.150	0.827	75	63	8.15	9 500	11 000	0.51	*NUP 307 ECP	J. M. ML
80		21		3.150	0.827	75	63	8.15	9 500	11 000	0.48	*N 307 ECP	–
80		31		3.150	1.220	106	98	12.7	9 500	11 000	0.72	*NU 2307 ECP	J
80		31		3.150	1.220	106	98	12.7	9 500	11 000	0.73	*NJ 2307 ECP	–
80		31		3.150	1.220	106	98	12.7	9 500	11 000	0.75	*NUP 2307 ECP	–
100		25		3.937	0.984	76.5	69.5	9	8 000	9 500	1	NU 407	–
100		25		3.937	0.984	76.5	69.5	9	8 000	9 500	1.05	NJ 407	–

* SKF Explorer bearing

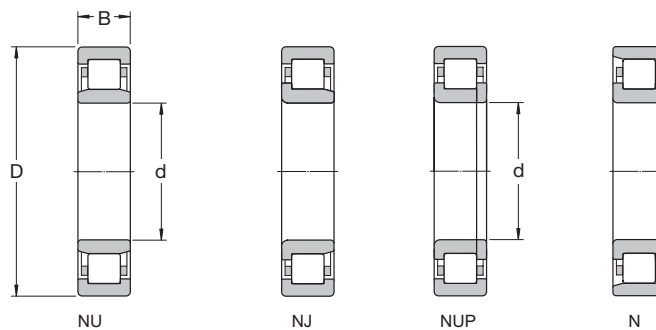
¹⁾ When ordering bearings with an alternative standard cage, the suffix of the standard cage has to be replaced by the suffix of the cage in question, e.g. NU 203 ECP becomes NU 203 ECML (for speed ratings see page 111)

²⁾ HJ angle rings are available

Single row cylindrical roller bearings

d 40 - 45 mm

d 1.575 - 1.772 in



Principal dimensions						Basic load ratings		Fatigue load limit	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic C	static C ₀	P _u	Reference speed	Limiting speed	Bearing with standard cage	Bearing with standard cage	Alternative standard cage designs ¹⁾
mm			in			kN		kN	r/min		kg	–	
40	68	15	1.575	2.677	0.591	25.1	26	3	11 000	18 000	0.22	NU 1008 ML	–
	80	18		3.150	0.709	62	53	6.7	9 500	11 000	0.42	*NU 208 ECP	J. M. ML
	80	18		3.150	0.709	62	53	6.7	9 500	11 000	0.43	*NJ 208 ECP	J. M. ML
	80	18		3.150	0.709	62	53	6.7	9 500	11 000	0.4	*NUP 208 ECP	J. M. ML
	80	18		3.150	0.709	62	53	6.7	9 500	11 000	0.37	*N 208 ECP	–
	80	23		3.150	0.906	81.5	75	9.65	9 500	11 000	0.54	*NU 2208 ECP	J. ML
	80	23		3.150	0.906	81.5	75	9.65	9 500	11 000	0.55	*NJ 2208 ECP	J. ML
	80	23		3.150	0.906	81.5	75	9.65	9 500	11 000	0.56	*NUP 2208 ECP	J. ML
	90	23		3.543	0.906	93	78	10.2	8 000	9 500	0.73	*NU 308 ECP	J. M. ML
	90	23		3.543	0.906	93	78	10.2	8 000	9 500	0.75	*NJ 308 ECP	J. M. ML
	90	23		3.543	0.906	93	78	10.2	8 000	9 500	0.68	*NUP 308 ECP	M. ML
	90	23		3.543	0.906	93	78	10.2	8 000	9 500	0.64	*N 308 ECP	–
	90	33		3.543	1.299	129	120	15.3	8 000	9 500	0.94	*NU 2308 ECP	J. M. ML
	90	33		3.543	1.299	129	120	15.3	8 000	9 500	0.96	*NJ 2308 ECP	J. M. ML
	90	33		3.543	1.299	129	120	15.3	8 000	9 500	0.98	*NUP 2308 ECP	M. ML
	110	27		4.331	1.063	96.8	90	11.6	7 000	8 500	1.4	NU 408	–
	110	27		4.331	1.063	96.8	90	11.6	7 000	8 500	1.35	NJ 408	–
45	75	16	1.772	2.953	0.630	44.6	52	6.3	9 500	11 000	0.26	NU 1009 ECP	–
	85	19		3.346	0.748	69.5	64	8.15	9 000	9 500	0.48	*NU 209 ECP	J. M. ML
	85	19		3.346	0.748	69.5	64	8.15	9 000	9 500	0.49	*NJ 209 ECP	J. M. ML
	85	19		3.346	0.748	69.5	64	8.15	9 000	9 500	0.45	*NUP 209 ECP	J. M. ML
	85	19		3.346	0.748	69.5	64	8.15	9 000	9 500	0.43	*N 209 ECP	–
	85	23		3.346	0.906	85	81.5	10.6	9 000	9 500	0.52	*NU 2209 ECP	J
	85	23		3.346	0.906	85	81.5	10.6	9 000	9 500	0.54	*NJ 2209 ECP	J
	85	23		3.346	0.906	85	81.5	10.6	9 000	9 500	0.55	*NUP 2209 ECP	–
	100	25		3.937	0.984	112	100	12.9	7 500	8 500	1	*NU 309 ECP	J. M. ML
	100	25		3.937	0.984	112	100	12.9	7 500	8 500	1.05	*NJ 309 ECP	J. M. ML
	100	25		3.937	0.984	112	100	12.9	7 500	8 500	0.95	*NUP 309 ECP	J. ML
	100	25		3.937	0.984	112	100	12.9	7 500	8 500	0.88	*N 309 ECP	–
	100	36		3.937	1.417	160	153	20	7 500	8 500	1.3	*NU 2309 ECP	ML
	100	36		3.937	1.417	160	153	20	7 500	8 500	1.35	*NJ 2309 ECP	ML
	100	36		3.937	1.417	160	153	20	7 500	8 500	1.35	*NUP 2309 ECP	ML
	120	29		4.724	1.142	106	102	13.4	6 700	7 500	1.78	NU 409	–
	120	29		4.724	1.142	106	102	13.4	6 700	7 500	1.7	NJ 409	–

* SKF Explorer bearing

¹⁾ When ordering bearings with an alternative standard cage, the suffix of the standard cage has to be replaced by the suffix of the cage in question, e.g. NU 203 ECP becomes NU 203 ECML (for speed ratings see page 111)

²⁾ HJ angle rings are available

Single row cylindrical roller bearings

d 50 - 55 mm

d 1.969 - 2.165 in

Principal dimensions						Basic load ratings		Fatigue load limit	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic C	static C ₀	P _u	Refer- ence speed	Limiting speed	Bearing with standard cage	Bearing with standard cage	Alternative standard cage designs ¹⁾
mm			in			kN		kN	r/min		kg	–	
50	80	16	1.969	3.150	0.630	46.8	56	6.7	9 000	9 500	0.27	NU 1010 ECP	–
	90	20		3.543	0.787	73.5	69.5	8.8	8 500	9 000	0.49	*NU 210 ECP	J. M. ML
	90	20		3.543	0.787	73.5	69.5	8.8	8 500	9 000	0.5	*NJ 210 ECP	J. M. ML
	90	20		3.543	0.787	73.5	69.5	8.8	8 500	9 000	0.51	*NUP 210 ECP	J. ML
	90	20		3.543	0.787	73.5	69.5	8.8	8 500	9 000	0.48	*N 210 ECP	–
	90	23		3.543	0.906	90	88	11.4	8 500	9 000	0.56	*NU 2210 ECP	J. M. ML
	90	23		3.543	0.906	90	88	11.4	8 500	9 000	0.59	*NJ 2210 ECP	J. M. ML
	90	23		3.543	0.906	90	88	11.4	8 500	9 000	0.59	*NUP 2210 ECP	J. ML
	110	27		4.331	1.063	127	112	15	6 700	8 000	1.15	*NU 310 ECP	J. M. ML
	110	27		4.331	1.063	127	112	15	6 700	8 000	1.15	*NJ 310 ECP	J. M. ML
	110	27		4.331	1.063	127	112	15	6 700	8 000	1.2	*NUP 310 ECP	J. M. ML
	110	27		4.331	1.063	127	112	15	6 700	8 000	1.15	*N 310 ECP	M
	110	40		4.331	1.575	186	186	24.5	6 700	8 000	2	*NU 2310 ECP	ML
	110	40		4.331	1.575	186	186	24.5	6 700	8 000	1.75	*NJ 2310 ECP	ML
	110	40		4.331	1.575	186	186	24.5	6 700	8 000	1.8	*NUP 2310 ECP	ML
	130	31		5.118	1.220	130	127	16.6	6 000	7 000	2	NU 410	–
	130	31		5.118	1.220	130	127	16.6	6 000	7 000	2.05	NJ 410	–
55	90	18	2.165	3.543	0.709	57.2	69.5	8.3	8 000	8 500	0.4	NU 1011 ECP	–
	100	21		3.937	0.827	96.5	95	12.2	7 500	8 000	0.67	*NU 211 ECP	J. M. ML
	100	21		3.937	0.827	96.5	95	12.2	7 500	8 000	0.67	*NJ 211 ECP	J. M. ML
	100	21		3.937	0.827	96.5	95	12.2	7 500	8 000	0.69	*NUP 211 ECP	J. M. ML
	100	21		3.937	0.827	96.5	95	12.2	7 500	8 000	0.66	*N 211 ECP	M
	100	25		3.937	0.984	114	118	15.3	7 500	8 000	0.79	*NU 2211 ECP	J. M. ML
	100	25		3.937	0.984	114	118	15.3	7 500	8 000	0.81	*NJ 2211 ECP	J. M. ML
	100	25		3.937	0.984	114	118	15.3	7 500	8 000	0.82	*NUP 2211 ECP	J. ML
	120	29		4.724	1.142	156	143	18.6	6 000	7 000	1.45	*NU 311 ECP	J. M. ML
	120	29		4.724	1.142	156	143	18.6	6 000	7 000	1.5	*NJ 311 ECP	J. M. ML
	120	29		4.724	1.142	156	143	18.6	6 000	7 000	1.55	*NUP 311 ECP	J. M. ML
	120	29		4.724	1.142	156	143	18.6	6 000	7 000	1.45	*N 311 ECP	M
	120	43		4.724	1.693	232	232	30.5	6 000	7 000	2.25	*NU 2311 ECP	ML
	120	43		4.724	1.693	232	232	30.5	6 000	7 000	2.3	*NJ 2311 ECP	ML
	120	43		4.724	1.693	232	232	30.5	6 000	7 000	2.35	*NUP 2311 ECP	ML
	140	33		5.512	1.299	142	140	18.6	5 600	6 300	2.5	NU 411	–
	140	33		5.512	1.299	142	140	18.6	5 600	6 300	2.55	NJ 411	–

* SKF Explorer bearing

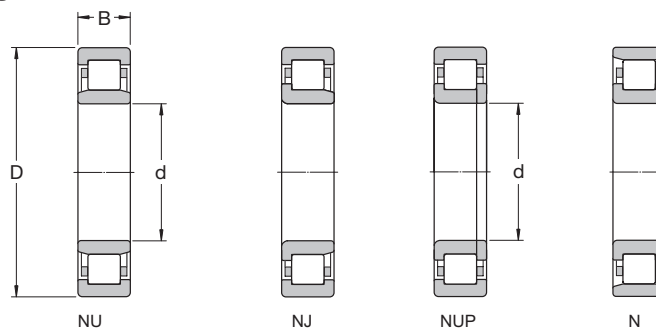
¹⁾ When ordering bearings with an alternative standard cage, the suffix of the standard cage has to be replaced by the suffix of the cage in question, e.g. NU 203 ECP becomes NU 203 ECML (for speed ratings see page 111)

²⁾ HJ angle rings are available

Single row cylindrical roller bearings

d 60 - 65 mm

d 2.362 - 2.559 in



Principal dimensions						Basic load ratings		Fatigue load limit	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic C	static C ₀	P _u	Reference speed	Limiting speed	Bearing with standard cage	Bearing with standard cage	Alternative standard cage designs ¹⁾
mm			in			kN		kN	r/min		kg	–	
60	95	18	2.362	3.740	0.709	37.4	44	5.3	8 000	11 000	0.48	NU 1012 ML	–
	110	22		4.331	0.866	108	102	13.4	6 700	7 500	0.81	*NU 212 ECP	J. M. ML
	110	22		4.331	0.866	108	102	13.4	6 700	7 500	0.83	*NJ 212 ECP	J. M. ML
	110	22		4.331	0.866	108	102	13.4	6 700	7 500	0.86	*NUP 212 ECP	J. ML
	110	22		4.331	0.866	108	102	13.4	6 700	7 500	0.81	*N 212 ECP	M
	110	28		4.331	1.102	146	153	20	6 700	7 500	1.1	*NU 2212 ECP	J. M. ML
	110	28		4.331	1.102	146	153	20	6 700	7 500	1.15	*NJ 2212 ECP	J. M. ML
	110	28		4.331	1.102	146	153	20	6 700	7 500	1.15	*NUP 2212 ECP	J. ML
	130	31		5.118	1.220	173	160	20.8	5 600	6 700	1.8	*NU 312 ECP	J. M. ML
	130	31		5.118	1.220	173	160	20.8	5 600	6 700	1.9	*NJ 312 ECP	J. M. ML
	130	31		5.118	1.220	173	160	20.8	5 600	6 700	1.95	*NUP 312 ECP	J. M. ML
	130	31		5.118	1.220	173	160	20.8	5 600	6 700	1.8	*N 312 ECP	M
	130	46		5.118	1.811	260	265	34.5	5 600	6 700	2.75	*NU 2312 ECP	ML
	130	46		5.118	1.811	260	265	34.5	5 600	6 700	2.8	*NJ 2312 ECP	ML
	130	46		5.118	1.811	260	265	34.5	5 600	6 700	2.85	*NUP 2312 ECP	ML
	150	35		5.906	1.378	168	173	22	5 000	6 000	3	NU 412	–
	150	35		5.906	1.378	168	173	22	5 000	6 000	3.1	NJ 412	–
65	100	18	2.559	3.937	0.709	62.7	81.5	9.8	7 000	7 500	0.45	NU 1013 ECP	–
	120	23		4.724	0.906	122	118	15.6	6 300	6 700	1.05	*NU 213 ECP	J. M. ML
	120	23		4.724	0.906	122	118	15.6	6 300	6 700	1.07	*NJ 213 ECP	J. M. ML
	120	23		4.724	0.906	122	118	15.6	6 300	6 700	1.1	*NUP 213 ECP	J. ML
	120	23		4.724	0.906	122	118	15.6	6 300	6 700	1.05	*N 213 ECP	–
	120	31		4.724	1.220	170	180	24	6 300	6 700	1.4	*NU 2213 ECP	J
	120	31		4.724	1.220	170	180	24	6 300	6 700	1.45	*NJ 2213 ECP	J
	120	31		4.724	1.220	170	180	24	6 300	6 700	1.5	*NUP 2213 ECP	–
	140	33		5.512	1.299	212	196	25.5	5 300	6 000	2.28	*NU 313 ECP	J. M. ML
	140	33		5.512	1.299	212	196	25.5	5 300	6 000	2.3	*NJ 313 ECP	J. M. ML
	140	33		5.512	1.299	212	196	25.5	5 300	6 000	2.35	*NUP 313 ECP	J. ML
	140	33		5.512	1.299	212	196	25.5	5 300	6 000	2.25	*N 313 ECP	M
65	140	48	2.559	5.512	1.890	285	290	38	5 300	6 000	3.3	*NU 2313 ECP	ML
	140	48		5.512	1.890	285	290	38	5 300	6 000	3.35	*NJ 2313 ECP	ML
	140	48		5.512	1.890	285	290	38	5 300	6 000	3.45	*NUP 2313 ECP	ML
	160	37		6.299	1.457	183	190	24	4 800	5 600	3.6	NU 413	–
	160	37		6.299	1.457	183	190	24	4 800	5 600	3.65	NJ 413	–

* SKF Explorer bearing

¹⁾ When ordering bearings with an alternative standard cage, the suffix of the standard cage has to be replaced by the suffix of the cage in question, e.g. NU 203 ECP becomes NU 203 ECML (for speed ratings see page 111)

²⁾ HJ angle rings are available

Single row cylindrical roller bearings

d 70 - 75 mm

d 2.36 - 5.2 in

Principal dimensions						Basic load ratings		Fatigue load limit	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic C	static C ₀	P _u	Refer- ence speed	Limiting speed	Bearing with standard cage	Bearing with standard cage	Alternative standard cage designs ¹⁾
mm			in			kN		kN	r/min		kg	–	
70	110	20	2.756	4.331	0.787	76.5	93	12	6 300	7 000	0.62	NU 1014 ECP	–
	125	24		4.921	0.945	137	137	18	6 000	6 300	1.15	*NU 214 ECP	J. M. ML
	125	24		4.921	0.945	137	137	18	6 000	6 300	1.15	*NJ 214 ECP	J. M. ML
	125	24		4.921	0.945	137	137	18	6 000	6 300	1.2	*NUP 214 ECP	M. ML
	125	24		4.921	0.945	137	137	18	6 000	6 300	1.15	*N 214 ECP	–
	125	31		4.921	1.220	180	193	25.5	6 000	6 300	1.55	*NU 2214 ECP	J. M. ML
	125	31		4.921	1.220	180	193	25.5	6 000	6 300	1.55	*NJ 2214 ECP	M. ML
	125	31		4.921	1.220	180	193	25.5	6 000	6 300	1.55	*NUP 2214 ECP	M. ML
	150	35		5.906	1.378	236	228	29	4 800	5 600	2.75	*NU 314 ECP	J. M. ML
	150	35		5.906	1.378	236	228	29	4 800	5 600	2.8	*NJ 314 ECP	J. M. ML
	150	35		5.906	1.378	236	228	29	4 800	5 600	2.85	*NUP 314 ECP	M. ML
	150	35		5.906	1.378	236	228	29	4 800	5 600	2.75	*N 314 ECP	M
	150	51		5.906	2.008	315	325	41.5	4 800	5 600	4	*NU 2314 ECP	ML
	150	51		5.906	2.008	315	325	41.5	4 800	5 600	4.05	*NJ 2314 ECP	ML
	150	51		5.906	2.008	315	325	41.5	4 800	5 600	4.15	*NUP 2314 ECP	ML
	180	42		7.087	1.654	229	240	30	4 300	5 000	5.25	NU 414	–
	180	42		7.087	1.654	229	240	30	4 300	5 000	5.35	NJ 414	–
75	115	20	2.953	4.528	0.787	58.3	71	8.5	6 700	10 000	0.74	NU 1015 ML	–
	130	25		5.118	0.984	150	156	20.4	5 600	6 000	1.25	*NU 215 ECP	J. M. ML
	130	25		5.118	0.984	150	156	20.4	5 600	6 000	1.3	*NJ 215 ECP	J. M. ML
	130	25		5.118	0.984	150	156	20.4	5 600	6 000	1.3	*NUP 215 ECP	M. ML
	130	25		5.118	0.984	150	156	20.4	5 600	6 000	1.25	*N 215 ECP	–
	130	31		5.118	1.220	186	208	27	5 600	6 000	1.6	*NU 2215 ECP	J. ML
	130	31		5.118	1.220	186	208	27	5 600	6 000	1.6	*NJ 2215 ECP	J. ML
	130	31		5.118	1.220	186	208	27	5 600	6 000	1.65	*NUP 2215 ECP	J. ML
	160	37		6.299	1.457	280	265	33.5	4 500	5 300	3.3	*NU 315 ECP	J. M. ML
	160	37		6.299	1.457	280	265	33.5	4 500	5 300	3.35	*NJ 315 ECP	J. M. ML
	160	37		6.299	1.457	280	265	33.5	4 500	5 300	3.45	*NUP 315 ECP	M. ML
	160	37		6.299	1.457	280	265	33.5	4 500	5 300	3.3	*N 315 ECP	M
	160	55		6.299	2.165	380	400	50	4 500	5 300	4.9	*NU 2315 ECP	J. ML
	160	55		6.299	2.165	380	400	50	4 500	5 300	5	*NJ 2315 ECP	ML
	160	55		6.299	2.165	380	400	50	4 500	5 300	5.1	*NUP 2315 ECP	ML
	190	45		7.480	1.772	264	280	34	4 000	4 800	6.75	NU 415	–
	190	45		7.480	1.772	264	280	34	4 000	4 800	6.9	NJ 415	–

* SKF Explorer bearing

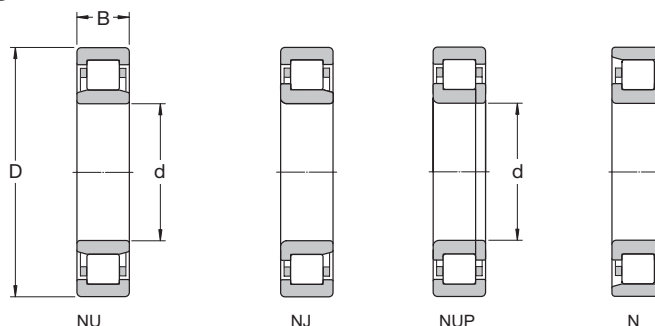
¹⁾ When ordering bearings with an alternative standard cage, the suffix of the standard cage has to be replaced by the suffix of the cage in question, e.g. NU 203 ECP becomes NU 203 ECML (for speed ratings see page 111)

²⁾ HJ angle rings are available

Single row cylindrical roller bearings

d 80 - 85 mm

d 3.150 - 3.346 in



Principal dimensions						Basic load ratings		Fatigue load limit	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic C	static C ₀	P _u	Refer- ence speed	Limiting speed	Bearing with standard cage	Bearing with standard cage	Alternative standard cage designs ¹⁾
mm			in			kN		kN	r/min		kg	–	
80	125	22	3.150	4.921	0.866	66	81.5	10.4	6 300	6 300	1	NU 1016	–
	125	22		4.921	0.866	99	127	16.3	5 600	9 500	1.1	NJ 1016 ECML	–
	140	26		5.512	1.024	160	166	21.2	5 300	5 600	1.5	*NU 216 ECP	J. M. ML
	140	26		5.512	1.024	160	166	21.2	5 300	5 600	1.6	*NJ 216 ECP	J. M. ML
	140	26		5.512	1.024	160	166	21.2	5 300	5 600	1.65	*NUP 216 ECP	ML
	140	26		5.512	1.024	160	166	21.2	5 300	5 600	1.5	*N 216 ECP	–
	140	33		5.512	1.299	212	245	31	5 300	5 600	2	*NU 2216 ECP	J. M. ML
	140	33		5.512	1.299	212	245	31	5 300	5 600	2.05	*NJ 2216 ECP	J. M. ML
	140	33		5.512	1.299	212	245	31	5 300	5 600	2.1	*NUP 2216 ECP	M. ML
	170	39		6.693	1.535	300	290	36	4 300	5 000	3.95	*NU 316 ECP	J. M. ML
	170	39		6.693	1.535	300	290	36	4 300	5 000	4	*NJ 316 ECP	J. M. ML
	170	39		6.693	1.535	300	290	36	4 300	5 000	4.1	*NUP 316 ECP	M. ML
	170	39		6.693	1.535	300	290	36	4 300	5 000	3.9	*N 316 ECP	M
	170	58		6.693	2.283	415	440	55	4 300	5 000	5.95	*NU 2316 ECP	M. ML
	170	58		6.693	2.283	415	440	55	4 300	5 000	6	*NJ 2316 ECP	M. ML
	170	58		6.693	2.283	415	440	55	4 300	5 000	6	*NUP 2316 ECP	M. ML
200	48		7.874	1.890	303	320	39	3 800	4 500	7.3	NU 416	–	
200	48		7.874	1.890	303	320	39	3 800	4 500	8.05	NJ 416	–	
85	130	22	3.346	5.118	0.866	68.2	86.5	10.8	6 000	9 000	1.05	NU 1017 ML	–
	150	28		5.906	1.102	190	200	24.5	4 800	5 300	1.9	*NU 217 ECP	J. M. ML
	150	28		5.906	1.102	190	200	24.5	4 800	5 300	1.95	*NJ 217 ECP	J. M. ML
	150	28		5.906	1.102	190	200	24.5	4 800	5 300	2	*NUP 217 ECP	J. ML
	150	28	5.906	1.102	190	200	24.5	4 800	5 300	1.9	*N 217 ECP	M	
	150	36		5.906	1.417	250	280	34.5	4 800	5 300	2.45	*NU 2217 ECP	J. M. ML
	150	36		5.906	1.417	250	280	34.5	4 800	5 300	2.55	*NJ 2217 ECP	J. M. ML
	150	36		5.906	1.417	250	280	34.5	4 800	5 300	2.65	*NUP 2217 ECP	ML
	180	41		7.087	1.614	340	335	41.5	4 000	4 800	4.7	*NU 317 ECP	J. M
	180	41		7.087	1.614	340	335	41.5	4 000	4 800	4.8	*NJ 317 ECP	J. M
	180	41		7.087	1.614	340	335	41.5	4 000	4 800	4.9	*NUP 317 ECP	J. M
	180	41		7.087	1.614	340	335	41.5	4 000	4 800	4.7	*N 317 ECP	M
	180	60		7.087	2.362	455	490	60	4 000	4 800	6.85	*NU 2317 ECP	J. ML
	180	60		7.087	2.362	455	490	60	4 000	4 800	7	*NJ 2317 ECP	ML
	180	60		7.087	2.362	455	490	60	4 000	4 800	7	*NUP 2317 ECP	ML
	210	52		8.268	2.047	319	335	39	3 600	4 300	9.7	NU 417	–
	210	52		8.268	2.047	319	335	39	3 800	4 300	8.9	NJ 417	–

* SKF Explorer bearing

¹⁾ When ordering bearings with an alternative standard cage, the suffix of the standard cage has to be replaced by the suffix of the cage in question, e.g. NU 203 ECP becomes NU 203 ECML (for speed ratings see page 111)

²⁾ HJ angle rings are available

Single row cylindrical roller bearings

d 90 - 95 mm

d 3.543 - 3.740 in

Principal dimensions						Basic load ratings		Fatigue load limit	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic C	static C ₀	P _u	Refer- ence speed	Limiting speed	Bearing with standard cage	Bearing with standard cage	Alternative standard cage designs ¹⁾
mm			in			kN		kN	r/min		kg	–	
90	140	24	3.543	5.512	0.945	80.9	104	12.7	5 600	8 500	1.35	NU 1018 ML	–
	160	30		6.299	1.181	208	220	27	4 500	5 000	2.35	*NU 218 ECP	J. M. ML
	160	30		6.299	1.181	208	220	27	4 500	5 000	2.4	*NJ 218 ECP	J. M. ML
	160	30		6.299	1.181	208	220	27	4 500	5 000	2.45	*NUP 218 ECP	M. ML
	160	30		6.299	1.181	208	220	27	4 500	5 000	2.35	*N 218 ECP	M
	160	40		6.299	1.575	280	315	39	4 500	5 000	3.15	*NU 2218 ECP	J. M. ML
	160	40		6.299	1.575	280	315	39	4 500	5 000	3.2	*NJ 2218 ECP	M. ML
	160	40		6.299	1.575	280	315	39	4 500	5 000	3.3	*NUP 2218 ECP	–
90	190	43	3.543	7.480	1.693	365	360	43	3 800	4 500	5.45	*NU 318 ECP	J. M. ML
	190	43		7.480	1.693	365	360	43	3 800	4 500	5.55	*NJ 318 ECP	J. M. ML
	190	43		7.480	1.693	365	360	43	3 800	4 500	5.65	*NUP 318 ECJ	M. ML
	190	43		7.480	1.693	365	360	43	3 800	4 500	5.4	*N 318 ECP	M
	190	64		7.480	2.520	500	540	65.5	3 800	4 500	8	*NU 2318 ECP	J. ML
	190	64		7.480	2.520	500	540	65.5	3 800	4 500	8.15	*NJ 2318 ECP	J. ML. M
	190	64		7.480	2.520	500	540	65.5	3 800	4 500	8.3	*NUP 2318 ECP	ML
	225	54		8.858	2.126	380	415	48	3 400	4 000	11.5	NU 418	–
95	145	24	3.740	5.709	0.945	84.2	110	13.2	5 300	8 000	1.4	NU 1019 ML	–
	170	32		6.693	1.260	255	265	32.5	4 300	4 800	2.85	*NU 219 ECP	J. M. ML
	170	32		6.693	1.260	255	265	32.5	4 300	4 800	2.9	*NJ 219 ECP	J. M. ML
	170	32		6.693	1.260	255	265	32.5	4 300	4 800	3	*NUP 219 ECP	ML
	170	32		6.693	1.260	255	265	32.5	4 300	4 800	2.85	*N 219 ECP	–
	170	43		6.693	1.693	325	375	45.5	4 300	4 800	3.85	*NU 2219 ECP	J. M
	170	43		6.693	1.693	325	375	45.5	4 300	4 800	3.95	*NJ 2219 ECP	J. M
	170	43		6.693	1.693	325	375	45.5	4 300	4 800	4	*NUP 2219 ECP	–
	200	45		7.874	1.772	390	390	46.5	3 600	4 300	6.25	*NU 319 ECP	J. M. ML
	200	45		7.874	1.772	390	390	46.5	3 600	4 300	6.45	*NJ 319 ECP	J. M. ML
	200	45		7.874	1.772	390	390	46.5	3 600	4 300	6.25	*NUP 319 ECP	M. ML
	200	45		7.874	1.772	390	390	46.5	3 600	4 300	6.25	*N 319 ECP	M
	200	67		7.874	2.638	530	585	69.5	3 600	4 300	9.65	*NU 2319 ECP	J. ML
	200	67		7.874	2.638	530	585	69.5	3 600	4 300	9.85	*NJ 2319 ECP	J. ML
	200	67		7.874	2.638	530	585	69.5	3 600	4 300	9.75	*NUP 2319 ECP	J. ML
	240	55		9.449	2.165	413	455	52	3 200	3 600	13.5	NU 419 M	–

* SKF Explorer bearing

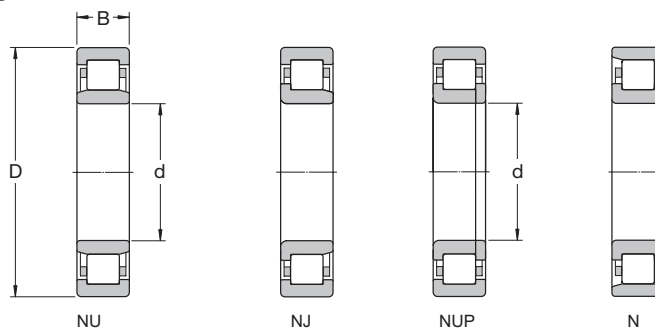
¹⁾ When ordering bearings with an alternative standard cage, the suffix of the standard cage has to be replaced by the suffix of the cage in question, e.g. NU 203 ECP becomes NU 203 ECML (for speed ratings see page 111)

²⁾ HJ angle rings are available

Single row cylindrical roller bearings

d 100 - 105 mm

d 3.937 - 4.134 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass Bearing with standard cage	Designations	
d	D	B	d	D	B	dynamic C	static C_0		Reference speed	Limiting speed		Bearing with standard cage	Alternative standard cage designs ¹⁾
mm			in			kN		kN	r/min		kg	–	
100	150	24	3.937	5.906	0.945	85.8	114	13.7	5 000	7 500	1.45	NU 1020 ML	M
	180	34		7.087	1.339	285	305	36.5	4 000	4 500	3.45	*NU 220 ECP	J. M. ML
	180	34		7.087	1.339	285	305	36.5	4 000	4 500	3.5	*NJ 220 ECP	J. M. ML
	180	34		7.087	1.339	285	305	36.5	4 000	4 500	3.6	*NUP 220 ECP	ML
	180	34		7.087	1.339	285	305	36.5	4 000	4 500	3.45	*N 220 ECP	–
	180	46		7.087	1.811	380	450	54	4 000	4 500	4.75	*NU 2220 ECP	J. ML
	180	46		7.087	1.811	380	450	54	4 000	4 500	4.8	*NJ 2220 ECP	J. ML
	180	46		7.087	1.811	380	450	54	4 000	4 500	4.9	*NUP 2220 ECP	ML
	215	47		8.465	1.850	450	440	51	3 200	3 800	7.85	*NU 320 ECP	J. M. ML
	215	47		8.465	1.850	450	440	51	3 200	3 800	7.65	*NJ 320 ECP	J. M. ML
	215	47		8.465	1.850	450	440	51	3 200	3 800	7.8	*NUP 320 ECJ	ML
	215	47		8.465	1.850	450	440	51	3 200	3 800	7.55	*N 320 ECP	M
	215	73		8.465	2.874	670	735	85	3 200	3 800	12	*NU 2320 ECP	J. ML
	215	73		8.465	2.874	670	735	85	3 200	3 800	12.2	*NJ 2320 ECP	J. ML
	215	73		8.465	2.874	670	735	85	3 200	3 800	12.5	*NUP 2320 ECP	J. ML
	250	58		9.843	2.283	429	475	53	3 000	3 600	14	NU 420 M	–
105	160	26	4.134	6.299	1.024	101	137	16	4 800	7 500	1.85	NU 1021 ML	M
	190	36		7.480	1.417	300	315	36.5	3 800	4 300	4	*NU 221 ECP	J. ML
	190	36		7.480	1.417	300	315	36.5	3 800	4 300	4.1	*NJ 221 ECP	ML
	190	36		7.480	1.417	300	315	36.5	3 800	4 300	4.2	*NUP 221 ECP	ML
	190	36		7.480	1.417	300	315	36.5	3 800	4 300	3.95	*N 221 ECP	–
	225	49		8.858	1.929	500	500	57	3 200	3 800	8.75	*NU 321 ECP	J. ML
	225	49		8.858	1.929	500	500	57	3 200	3 800	9	*NJ 321 ECJ	ML
	225	49		8.858	1.929	500	500	57	3 200	3 800	8.65	*N 321 ECP	–
	260	60		10.236	2.362	501	570	64	2 800	3 400	19	NU 421 M	–

* SKF Explorer bearing

¹⁾ When ordering bearings with an alternative standard cage, the suffix of the standard cage has to be replaced by the suffix of the cage in question, e.g. NU 203 ECP becomes NU 203 ECML (for speed ratings see page 111)

²⁾ HJ angle rings are available

Single row cylindrical roller bearings

d 110 - 120 mm

d 4.331 - 4.724 in

Principal dimensions						Basic load ratings		Fatigue load limit	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic C	static C ₀	P _u	Reference speed	Limiting speed	Bearing with standard cage	Bearing with standard cage	Alternative standard cage designs ¹⁾
mm			in			kN		kN	r/min		kg	–	
110	170	28	4.331	6.693	1.102	128	166	19.3	4 500	7 000	2.3	NU 1022 ML	M
	200	38		7.874	1.496	335	365	42.5	3 600	4 000	4.8	*NU 222 ECP	J. M. ML
	200	38		7.874	1.496	335	365	42.5	3 600	4 000	4.9	*NJ 222 ECP	J. M. ML
	200	38		7.874	1.496	335	365	42.5	3 600	4 000	5	*NUP 222 ECP	ML
	200	38		7.874	1.496	335	365	42.5	3 600	4 000	4.8	*N 222 ECP	M
	200	53		7.874	2.087	440	520	61	3 600	4 000	6.7	*NU 2222 ECP	J. ML
	200	53		7.874	2.087	440	520	61	3 600	4 000	6.85	*NJ 2222 ECP	J. ML
	200	53		7.874	2.087	440	520	61	3 600	4 000	7	*NUP 2222 ECP	ML
	240	50		9.449	1.969	530	540	61	3 000	3 400	10.8	*NU 322 ECP	J. M. ML
	240	50		9.449	1.969	530	540	61	3 000	3 400	11.1	*NJ 322 ECP	J. M. ML
	240	50		9.449	1.969	530	540	61	3 000	3 400	11.2	*NUP 322 ECP	J. ML
	240	50		9.449	1.969	530	540	61	3 000	3 400	10.5	*N 322 ECP	M
	240	80		9.449	3.150	780	900	102	3 000	3 400	17	*NU 2322 ECP	MA
	240	80		9.449	3.150	780	900	102	3 000	3 400	18.9	*NJ 2322 ECP	MA
	240	80		9.449	3.150	780	900	102	3 000	3 400	18.9	*NUP 2322 ECP	MA
	280	65		11.024	2.559	532	585	64	2 600	3 200	20	NU 422	–
	280	65		11.024	2.559	532	585	64	2 600	3 200	20.3	NJ 422	–
120	180	28	4.724	7.087	1.102	134	183	20.8	4 000	6 300	2.45	NU 1024 ML	M
	215	40		8.465	1.575	390	430	49	3 400	3 600	5.75	*NU 224 ECP	J. M. ML
	215	40		8.465	1.575	390	430	49	3 400	3 600	5.85	*NJ 224 ECP	J. M. ML
	215	40		8.465	1.575	390	430	49	3 400	3 600	6	*NUP 224 ECJ	ML
	215	40		8.465	1.575	390	430	49	3 400	3 600	5.75	*N 224 ECP	M
	215	58		8.465	2.283	520	630	72	3 400	3 600	8.3	*NU 2224 ECP	J. M. ML
	215	58		8.465	2.283	520	630	72	3 400	3 600	8.5	*NJ 2224 ECP	J. M. ML
	215	58		8.465	2.283	520	630	72	3 400	3 600	9	*NUP 2224 ECP	ML
	260	55		10.236	2.165	610	620	69.5	2 800	3 200	13.3	*NU 324 ECP	J. M. ML
	260	55		10.236	2.165	610	620	69.5	2 800	3 200	13.5	*NJ 324 ECP	J. M. ML
	260	55		10.236	2.165	610	620	69.5	2 800	3 200	13.7	*NUP 324 ECP	ML
	260	55		10.236	2.165	610	620	69.5	2 800	3 200	13.2	*N 324 ECP	M
	260	86		10.236	3.386	915	1 040	116	2 800	4 300	24	*NU 2324 ECMA	–
	260	86		10.236	3.386	915	1 040	116	2 800	4 300	24.3	*NJ 2324 ECMA	M
	260	86		10.236	3.386	915	1 040	116	2 800	4 300	24.3	*NUP 2324 ECMA	–
	310	72		12.205	2.835	644	735	78	2 400	2 800	28	NU 424	–

* SKF Explorer bearing

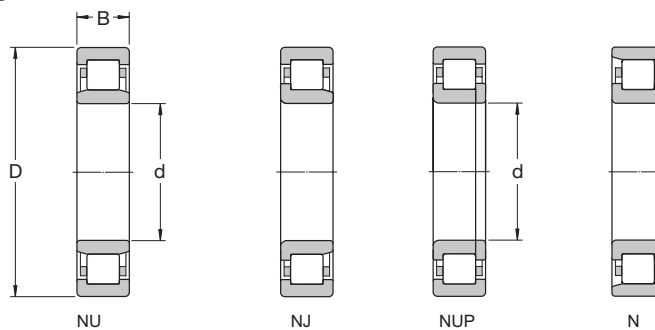
¹⁾ When ordering bearings with an alternative standard cage, the suffix of the standard cage has to be replaced by the suffix of the cage in question, e.g. NU 203 ECP becomes NU 203 ECML (for speed ratings see page 111)

²⁾ HJ angle rings are available

Single row cylindrical roller bearings

d 130 - 140 mm

d 5.118 - 5.512 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass Bearing with standard cage	Designations	
d	D	B	d	D	B	dynamic C	static C_0		Reference speed	Limiting speed		Bearing with standard cage	Alternative standard cage designs ¹⁾
mm			in			kN		kN	r/min		kg	–	
130	200	33	5.118	7.874	1.299	165	224	25	3 800	5 600	3.8	NU 1026 ML	M
	230	40		9.055	1.575	415	455	51	3 200	3 400	6.45	*NU 226 ECP	J. M. ML
	230	40		9.055	1.575	415	455	51	3 200	3 400	6.6	*NJ 226 ECP	J. M. ML
	230	40		9.055	1.575	415	455	51	3 200	3 400	6.75	*NUP 226 ECP	J. ML
	230	40		9.055	1.575	415	455	51	3 200	3 400	6.3	*N 226 ECP	–
	230	64		9.055	2.520	610	735	83	3 200	3 400	10.5	*NU 2226 ECP	ML
	230	64		9.055	2.520	610	735	83	3 200	3 400	12.2	*NJ 2226 ECP	ML
	230	64		9.055	2.520	610	735	83	3 200	3 400	12.2	*NUP 2226 ECP	ML
	280	58		11.024	2.283	720	750	81.5	2 400	3 000	16.5	*NU 326 ECP	J. M. ML
	280	58		11.024	2.283	720	750	81.5	2 400	3 000	18.4	*NJ 326 ECP	J. M. ML
	280	58		11.024	2.283	720	750	81.5	2 400	3 000	19.6	*NUP 326 ECP	ML
	280	58		11.024	2.283	720	750	81.5	2 400	3 000	18.5	*N 326 ECP	M
	280	93		11.024	3.661	1 060	1 250	137	2 400	3 000	30	*NU 2326 ECMA	–
	280	93		11.024	3.661	1 060	1 250	137	2 400	3 000	30.5	*NJ 2326 ECMA	–
	280	93		11.024	3.661	1 060	1 250	137	2 400	3 000	31	*NUP 2326 ECMA	–
140	210	33	5.512	8.268	1.299	172	245	27	3 600	5 300	4.05	NU 1028 ML	M
	250	42		9.843	1.654	450	510	57	2 800	3 200	8.5	*NU 228 ECM	J. ML
	250	42		9.843	1.654	450	510	57	2 800	3 200	8.75	*NJ 228 ECM	J. ML
	250	42		9.843	1.654	450	510	57	2 800	3 200	8.9	*NUP 228 ECM	ML
	250	68		9.843	2.677	655	830	93	2 800	4 800	15	*NU 2228 ECML	–
	250	68		9.843	2.677	655	830	93	2 800	4 800	15.3	*NJ 2228 ECML	–
	250	68		9.843	2.677	655	830	93	2 800	4 800	15.6	*NUP 2228 ECML	–
	300	62		11.811	2.441	780	830	88	2 400	2 800	22.7	*NU 328 ECM	J. ML
	300	62		11.811	2.441	780	830	88	2 400	2 800	23	*NJ 328 ECM	J. ML
	300	62		11.811	2.441	780	830	88	2 400	2 800	23.5	*NUP 328 ECM	ML
	300	102		11.811	4.016	1 200	1 430	150	2 400	3 600	37	*NU 2328 ECMA	–
	300	102		11.811	4.016	1 200	1 430	150	2 400	3 600	37.5	*NJ 2328 ECMA	–
	300	102		11.811	4.016	1 200	1 430	150	2 400	3 600	38	*NUP 2328 ECMA	–

* SKF Explorer bearing

¹⁾ When ordering bearings with an alternative standard cage, the suffix of the standard cage has to be replaced by the suffix of the cage in question, e.g. NU 203 ECP becomes NU 203 ECML (for speed ratings see page 111)

²⁾ HJ angle rings are available

Single row cylindrical roller bearings

d 150 - 170 mm

d 5.906 - 6.693 in

Principal dimensions						Basic load ratings		Fatigue load limit	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic C	static C ₀	P _u	Reference speed	Limiting speed	Bearing with standard cage	Bearing with standard cage	Alternative standard cage designs ¹⁾
mm			in			kN		kN	r/min		kg	–	
150	225	35	5.906	8.858	1.378	194	275	30	3 200	5 000	4.85	NU 1030 ML	M
	270	45		10.630	1.772	510	600	64	2 600	2 800	11.8	*NU 230 ECM	J. ML
	270	45		10.630	1.772	510	600	64	2 600	2 800	12	*NJ 230 ECM	J. ML
	270	45		10.630	1.772	510	600	64	2 600	2 800	12.2	*NUP 230 ECM	ML
	270	73		10.630	2.874	735	930	100	2 600	2 800	20	*NU 2230 ECM	–
	270	73		10.630	2.874	735	930	100	2 600	2 800	20.3	*NJ 2230 ECM	–
	320	65		12.598	2.559	900	965	100	2 200	2 600	27.5	*NU 330 ECM	MA
	320	65		12.598	2.559	900	965	100	2 200	2 600	28	*NJ 330 ECM	MA
	320	108		12.598	4.252	1 370	1 630	166	2 200	3 400	45.5	*NU 2330 ECMA	–
	320	108		12.598	4.252	1 370	1 630	166	2 200	3 400	46	*NJ 2330 ECMA	–
	320	108		12.598	4.252	1 370	1 630	166	2 200	3 400	46.5	*NUP 2330 ECMA	–
160	240	38	6.299	9.449	1.496	229	325	35.5	3 000	4 800	5.95	NU 1032 ML	M
	290	48		11.417	1.890	585	680	72	2 400	2 600	14.5	*NU 232 ECM	ML
	290	48		11.417	1.890	585	680	72	2 400	2 600	15	*NJ 232 ECM	ML
	290	48		11.417	1.890	585	680	72	2 400	2 600	15.5	*NUP 232 ECM	ML
	290	48		11.417	1.890	585	680	72	2 400	2 600	15.5	*N 232 ECM	–
	290	80		11.417	3.150	930	1 200	129	2 400	3 600	24	*NU 2232 ECMA	–
	290	80		11.417	3.150	930	1 200	129	2 400	3 600	24.5	*NJ 2232 ECMA	–
	340	68		13.386	2.677	1 000	1 080	112	2 000	2 400	33	*NU 332 ECM	MA
	340	68		13.386	2.677	1 000	1 080	112	2 000	2 400	33.5	*NJ 332 ECM	MA
	340	114		13.386	4.488	1 250	1 730	173	1 800	2 800	53	NU 2332 ECMA	–
	340	114		13.386	4.488	1 250	1 730	173	1 800	2 800	53.5	NJ 2332 ECMA	–
170	260	42	6.693	10.236	1.654	275	400	41.5	2 800	4 300	8.15	NU 1034 ML	M
	310	52		12.205	2.047	695	815	85	2 200	2 400	19	*NU 234 ECM	MA
	310	52		12.205	2.047	695	815	85	2 200	2 400	19.5	*NJ 234 ECM	MA
	310	52		12.205	2.047	695	815	85	2 200	2 400	20	*NUP 234 ECM	MA
	310	86		12.205	3.386	1 060	1 340	140	2 200	3 200	30	*NU 2234 ECMA	–
	360	72		14.173	2.835	952	1 180	116	1 700	2 200	37.5	NU 334 ECM	MA
	360	72		14.173	2.835	952	1 180	116	1 700	2 200	38.5	N 334 ECM	–
	360	120		14.173	4.724	1 450	2 040	204	1 700	3 000	62	NU 2334 ECMA	–
	360	120		14.173	4.724	1 450	2 040	204	1 700	3 000	63	NJ 2334 ECMA	–

* SKF Explorer bearing

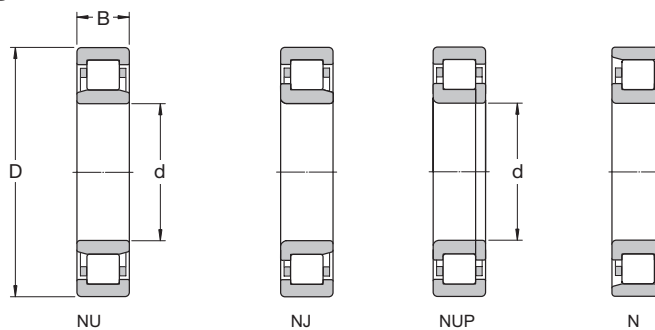
¹⁾ When ordering bearings with an alternative standard cage, the suffix of the standard cage has to be replaced by the suffix of the cage in question, e.g. NU 203 ECP becomes NU 203 ECML (for speed ratings see page 111)

²⁾ HJ angle rings are available

Single row cylindrical roller bearings

d 180 - 220 mm

d 7.087 - 8.661 in



Principal dimensions						Basic load ratings		Fatigue load limit	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic C	static C ₀	P _u	Refer- ence speed	Limiting speed	Bearing with standard cage	Bearing with standard cage	Alternative standard cage designs ¹⁾
mm			in			kN		kN	r/min		kg	–	
180	280	46	7.087	11.024	1.811	336	475	51	2 600	4 000	10.5	NU 1036 ML	M
	320	52		12.598	2.047	720	850	88	2 200	3 200	19.5	*NU 236 ECMA	–
	320	52		12.598	2.047	720	850	88	2 200	3 200	20.2	*NJ 236 ECMA	–
	320	52		12.598	2.047	720	850	88	2 200	3 200	21	*NUP 236 ECMA	–
	320	86		12.598	3.386	1 100	1 430	146	2 200	3 200	31.5	*NU 2236 ECMA	M
	320	86		12.598	3.386	1 100	1 430	146	2 200	3 200	32	*NJ 2236 ECMA	M
	380	75		14.961	2.953	1 020	1 290	125	1 600	2 200	44	NU 336 ECM	–
	380	126		14.961	4.961	1 610	2 240	216	1 600	2 800	71.5	NU 2336 ECMA	–
190	290	46	7.480	11.417	1.811	347	500	53	2 600	3 800	11	NU 1038 ML	–
	340	55		13.386	2.165	800	965	98	2 000	3 000	24	*NU 238 ECMA	M
	340	55		13.386	2.165	800	965	98	2 000	3 000	24.5	*NJ 238 ECMA	M
	340	55		13.386	2.165	800	965	98	2 000	3 000	25	*NUP 238 ECMA	M
	340	92		13.386	3.622	1 220	1 600	160	2 000	3 000	39	*NU 2238 ECMA	–
	400	78		15.748	3.071	1 140	1 500	143	1 500	2 000	50	NU 338 ECM	–
	400	132		15.748	5.197	1 830	2 550	236	1 500	2 600	82.5	NU 2338 ECMA	–
200	310	51	7.874	12.205	2.008	380	570	58.5	2 400	3 000	14.5	NU 1040 MA	M
	360	58		14.173	2.283	850	1 020	100	1 900	2 800	28.5	*NU 240 ECMA	M
	360	58		14.173	2.283	850	1 020	100	1 900	2 800	29	*NJ 240 ECMA	M
	360	58		14.173	2.283	850	1 020	100	1 900	2 800	29.5	*NUP 240 ECMA	M
	360	98		14.173	3.858	1 370	1 800	180	1 900	2 800	46	*NU 2240 ECMA	–
	420	80		16.535	3.150	1 230	1 630	150	1 400	2 400	56	NU 340 ECMA	–
	420	138		16.535	5.433	1 980	2 800	255	1 400	2 400	97	NU 2340 ECMA	–
	420	138		16.535	5.433	1 980	2 800	255	1 400	2 400	98	NJ 2340 ECMA	–
220	340	56	8.661	13.386	2.205	495	735	73.5	2 200	2 800	19	NU 1044 MA	M
	400	65		15.748	2.559	1 060	1 290	125	1 600	2 400	38.5	*NU 244 ECMA	M
	400	65		15.748	2.559	1 060	1 290	125	1 600	2 400	39	*NJ 244 ECMA	M
	400	65		15.748	2.559	1 060	1 290	125	1 600	2 400	39.5	*NUP 244 ECMA	M
	400	108		15.748	4.252	1 570	2 280	212	1 600	2 400	62.5	NU 2244 ECMA	–
	460	88		18.110	3.465	1 210	1 630	150	1 500	1 700	72.5	NU 344 M	–
	460	88		18.110	3.465	1 210	1 630	150	1 500	1 700	73.5	NJ 344 M	–
	460	145		18.110	5.709	2 380	3 450	310	1 300	2 200	120	NU 2344 ECMA	–

* SKF Explorer bearing

¹⁾ When ordering bearings with an alternative standard cage, the suffix of the standard cage has to be replaced by the suffix of the cage in question, e.g. NU 203 ECP becomes NU 203 ECML (for speed ratings see page 111)

²⁾ HJ angle rings are available

Single row cylindrical roller bearings

d 240 - 340 mm
d 9.449 - 13.386 in

Principal dimensions						Basic load ratings		Fatigue load limit	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic C	static C ₀	P _u	Refer- ence speed	Limiting speed	Bearing with standard cage	Bearing with standard cage	Alternative standard cage designs ¹⁾
mm			in			kN		kN	r/min		kg	–	
240	360	56	9.449	14.173	2.205	523	800	78	2 000	2 600	20	NU 1048 MA	–
	440	72		17.323	2.835	952	1 370	129	1 600	2 200	51.5	NU 248 MA	–
	440	72		17.323	2.835	952	1 370	129	1 600	2 200	52.5	NJ 248 MA	–
	440	72		17.323	2.835	952	1 370	129	1 600	2 200	53.5	NUP 248 MA	–
	440	120		17.323	4.724	1 450	2 360	216	1 500	2 200	84	NU 2248 MA	–
	440	120		17.323	4.724	1 450	2 360	216	1 500	2 200	85	NJ 2248 MA	–
	500	95		19.685	3.740	1 450	2 000	180	1 300	1 600	94.5	NU 348 M	–
	500	95		19.685	3.740	1 450	2 000	180	1 300	2 000	98.5	NJ 348 MA	–
	500	155		19.685	6.102	2 600	3 650	320	1 200	2 000	155	NU 2348 ECMA	–
	260	400	65	10.236	15.748	2.559	627	965	96.5	1 800	2 400	29.5	NU 1052 MA
480		80		18.898	3.150	1 170	1 700	156	1 400	2 000	68.5	NU 252 MA	
480		80		18.898	3.150	1 170	1 700	156	1 400	2 000	70	NJ 252 MA	
480		80		18.898	3.150	1 170	1 700	156	1 400	2 000	72	NUP 252 MA	
480		130		18.898	5.118	1 790	3 000	265	1 300	2 000	110	NU 2252 MA	
480		130		18.898	5.118	1 790	3 000	265	1 300	2 000	112	NJ 2252 MA	
540		102		21.260	4.016	1 940	2 700	236	1 100	1 800	125	NU 352 ECMA	
280		420	65	11.024	16.535	2.559	660	1 060	102	1 700	2 200	32.5	NU 1056 MA
	500	80		19.685	3.150	1 140	1 700	153	1 400	1 900	71.5	NU 256 MA	
	500	80		19.685	3.150	1 140	1 700	153	1 400	1 900	73	NJ 256 MA	
	500	130		19.685	5.118	2 200	3 250	285	1 200	1 900	115	NU 2256 ECMA	
	580	175		22.835	6.890	2 700	4 300	365	1 000	1 700	230	NU 2356 MA	
300	460	74	11.811	18.110	2.913	858	1 370	129	1 500	2 000	46.5	NU 1060 MA	
	460	74		18.110	2.913	858	1 370	129	1 500	2 000	47	NJ 1060 MA	
	540	85		21.260	3.346	1 420	2 120	183	1 300	1 800	89.5	NU 260 MA	
	540	140		21.260	5.512	2 090	3 450	300	1 200	1 800	145	NU 2260 MA	
320	480	74	12.598	18.898	2.913	880	1 430	132	1 400	1 900	48.5	NU 1064 MA	
	480	74		18.898	2.913	880	1 430	132	1 400	1 900	49	NJ 1064 MA	
	580	92		22.835	3.622	1 610	2 450	204	1 200	1 600	115	NU 264 MA	
	580	150		22.835	5.906	3 190	5 000	415	1 000	1 600	180	NU 2264 ECMA	
340	520	82	13.386	20.472	3.228	1 080	1 760	156	1 300	1 700	65	NU 1068 MA	
	520	82		20.472	3.228	1 080	1 760	156	1 300	1 700	68	NJ 1068 MA	
	620	165		24.409	6.496	2 640	4 500	365	1 000	1 500	220	NU 2268 MA	

* SKF Explorer bearing

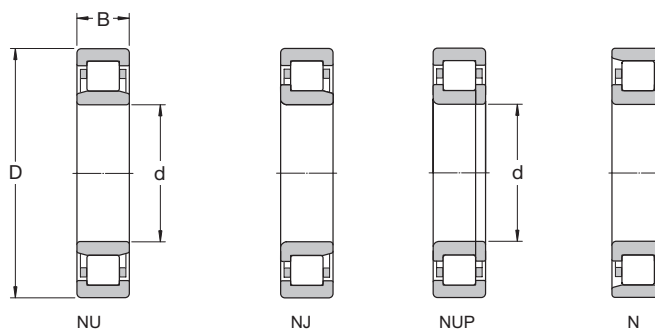
¹⁾ When ordering bearings with an alternative standard cage, the suffix of the standard cage has to be replaced by the suffix of the cage in question, e.g. NU 203 ECP becomes NU 203 ECML (for speed ratings see page 111)

²⁾ HJ angle rings are available

Single row cylindrical roller bearings

d 360 - 530 mm

d 14.173 - 20.866 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass Bearing with standard cage	Designations Bearing with standard cage	Alternative standard cage designs ¹⁾
d	D	B	d	D	B	dynamic C	static C_0		Reference speed	Limiting speed			
mm			in			kN		kN	r/min		kg	–	
360	540	82	14.173	21.260	3.228	1 100	1 830	163	1 300	1 600	67.5	NU 1072 MA NU 2272 MA	
	650	170		25.591	6.693	2 920	4 900	400	950	1 400	250		
380	560	82	14.961	22.047	3.228	1 140	1 930	170	1 200	1 600	71	NU 1076 MA NJ 1076 MA NU 2276 ECMA	
	560	82		22.047	3.228	1 140	1 930	170	1 200	1 600	73		
	680	175		26.772	6.890	3 140	5 500	440	900	1 600	275		
400	600	90	15.748	23.622	3.543	1 380	2 320	204	1 100	1 500	92.5	NU 1080 MA	
420	620	90	16.535	24.409	3.543	1 420	2 450	212	1 100	1 400	96	NU 1084 MA	
440	650	94	17.323	25.591	3.701	1 510	2 650	212	1 000	1 300	105	NU 1088 MA	
460	680	100	18.110	26.772	3.937	1 650	2 850	224	950	1 200	115	NU 1092 MA NU 1292 MA NU 2292 MA	
	830	165		32.677	6.496	4 180	6 800	510	750	1 100	415		
	830	212		32.677	8.346	5 120	8 650	655	700	1 100	530		
480	700	100	18.898	27.559	3.937	1 680	3 000	232	900	1 200	130	NU 1096 MA	
500	720	100	19.685	28.346	3.937	1 720	3 100	236	900	1 100	135	NU 10/500 MA NU 12/500 MA	
	920	185		36.220	7.283	5 280	8 500	620	670	950	585		
530	780	112	20.866	30.709	4.409	2 290	4 050	305	800	1 000	190	NU 10/530 MA NU 20/530 ECMA	
	780	145		30.709	5.709	3 740	7 350	550	670	1 000	255		

* SKF Explorer bearing

¹⁾ When ordering bearings with an alternative standard cage, the suffix of the standard cage has to be replaced by the suffix of the cage in question, e.g. NU 203 ECP becomes NU 203 ECML (for speed ratings see page 111)

²⁾ HJ angle rings are available

Single row cylindrical roller bearings

d 560 - 800 mm
d 22.047 - 31.496 in

Principal dimensions						Basic load ratings		Fatigue load limit	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic C	static C ₀	P _u	Refer- ence speed	Limiting speed	Bearing with standard cage	Bearing with standard cage	Alternative standard cage designs ¹⁾
mm			in			kN		kN	r/min		kg	–	
560	820	115	22.047	32.283	4.528	2 330	4 250	310	750	1 000	210	NU 10/560 MA	
	820	150		32.283	5.906	3 800	7 650	560	630	1 000	290	NU 20/560 ECMA	
	1 030	206		40.551	8.110	7 210	11 200	780	560	800	805	NU 12/560 MA	
600	870	118	23.622	34.252	4.646	2 750	5 100	365	700	900	245	NU 10/600 N2MA	
	870	155		34.252	6.102	4 180	8 000	570	600	900	325	NU 20/600 ECMA	
	1 090	155		42.913	6.102	5 610	9 800	670	480	850	710	NU 20/600 ECMA/HB1	
630	920	128	24.803	36.220	5.039	3 410	6 200	430	630	1 000	285	NU 10/630 ECN2MA	
	920	170		36.220	6.693	4 730	9 500	670	560	850	400	NU 20/630 ECMA	
	1 150	230		45.276	9.055	8 580	13 700	915	450	700	1 100	NU 12/630 ECMA	
670	980	136	26.378	38.583	5.354	3 740	6 800	465	530	800	350	NU 10/670 ECMA	
	980	180		38.583	7.087	5 390	11 000	750	500	800	480	NU 20/670 ECMA	
710	1 030	140	27.953	40.551	5.512	4 680	8 500	570	500	750	415	NU 10/710 ECN2MA	
	1 030	185		40.551	7.283	5 940	12 000	815	480	700	540	NU 20/710 ECMA	
750	1 090	150	29.528	42.913	5.906	4 730	8 800	585	430	670	490	NU 10/750 ECN2MA	
	1 090	195		42.913	7.677	7 040	14 600	980	430	670	635	NU 20/750 ECMA	
800	1 150	200	31.496	45.276	7.874	7 040	14 600	950	400	630	715	NU 20/800 ECMA	

* SKF Explorer bearing

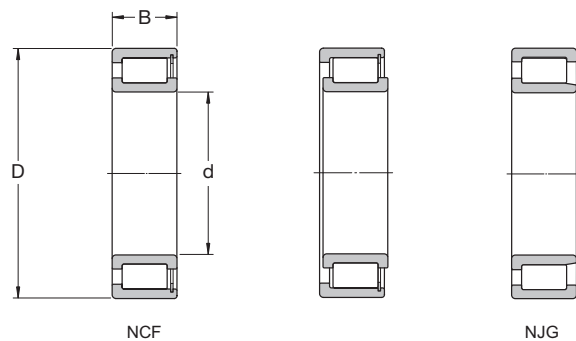
¹⁾ When ordering bearings with an alternative standard cage, the suffix of the standard cage has to be replaced by the suffix of the cage in question, e.g. NU 203 ECP becomes NU 203 ECML (for speed ratings see page 111)

²⁾ HJ angle rings are available

Single row full complement cylindrical roller bearings

d 20 - 90 mm

d 0.787 - 3.543 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass	Designation				
d	D	B	d	D	B	dynamic	static		Reference speed	Limiting speed						
			in			kN		kN	r/min	kg	—					
20	42	16	0.787	1.654	0.630	28.1	28.5	3.1	8 500	10 000	0.11	NCF 3004 CV				
25	47	16	0.984	1.850	0.630	31.9	35.5	3.8	7 000	9 000	0.12	NCF 3005 CV				
		62		24	2.441	0.945	68.2		68	8.5			4 500	5 600	0.38	NJG 2305 VH
30	55	19	1.181	2.165	0.748	39.6	44	5	6 000	7 500	0.2	NCF 3006 CV				
		72		27	2.835	1.063	84.2		86.5	11			4 000	4 800	0.56	NJG 2306 VH
35	62	20	1.378	2.441	0.787	48.4	56	6.55	5 300	6 700	0.26	NCF 3007 CV				
		80		31	3.150	1.220	108		114	14.3			3 400	4 300	0.75	NJG 2307 VH
40	68	21	1.575	2.677	0.827	57.2	69.5	8.15	4 800	6 000	0.31	NCF 3008 CV				
		90		33	3.543	1.299	145		156	20			3 000	3 600	1	NJG 2308 VH
45	75	23	1.772	2.953	0.906	60.5	78	9.15	4 300	5 300	0.4	NCF 3009 CV				
		100		36	3.937	1.417	172		196	25.5			2 800	3 400	1.45	NJG 2309 VH
50	80	23	1.969	3.150	0.906	76.5	98	11.8	4 000	5 000	0.43	NCF 3010 CV				
55	90	26	2.165	3.543	1.024	105	140	17.3	3 400	4 300	0.64	NCF 3011 CV				
		120		43	4.724	1.693	233		260	33.5			2 200	2 800	2.3	NJG 2311 VH
60	85	16	2.362	3.346	0.630	55	80	9.15	3 600	4 500	0.29	NCF 2912 CV				
		95		26	3.740	1.024	106		146	18.3			3 400	4 000	0.69	NCF 3012 CV
65	90	16	2.559	3.543	0.630	58.3	88	10.2	3 200	4 000	0.31	NCF 2913 CV				
		100		26	3.937	1.024	112		163	20			3 000	3 800	0.73	NCF 3013 CV
		140		48	5.512	1.890	303		360	46.5			1 900	2 400	3.55	NJG 2313 VH
70	100	19	2.756	3.937	0.748	76.5	116	13.7	3 000	3 800	0.49	NCF 2914 CV				
		110		30	4.331	1.181	128		173	22.4			2 800	3 600	1.02	NCF 3014 CV
		150		51	5.906	2.008	336		400	50			1 800	2 200	4.4	NJG 2314 VH
75	105	19	2.953	4.134	0.748	79.2	125	14.6	2 800	3 600	0.52	NCF 2915 CV				
		115		30	4.528	1.181	134		190	24.5			2 600	3 200	1.06	NCF 3015 CV
		160		55	6.299	2.165	396		480	60			1 600	2 000	5.35	NJG 2315 VH
80	110	19	3.150	4.331	0.748	80.9	132	15.6	2 600	3 400	0.55	NCF 2916 CV				
		125		34	4.921	1.339	165		228	29			2 400	3 000	1.43	NCF 3016 CV
		170		58	6.693	2.283	457		570	71			1 500	1 900	6.4	NJG 2316 VH
85	120	22	3.346	4.724	0.866	102	166	20	2 600	3 200	0.81	NCF 2917 CV				
		130		34	5.118	1.339	172		236	30			2 400	3 000	1.51	NCF 3017 CV
		180		60	7.087	2.362	484		620	76.5			1 400	1 800	7.4	NJG 2317 VH
90	125	22	3.543	4.921	0.866	106	176	20.8	2 400	3 000	0.84	NCF 2918 CV				
		140		37	5.512	1.457	198		280	35.5			2 200	2 800	1.97	NCF 3018 CV
		190		64	7.480	2.520	528		670	81.5			1 400	1 800	8.75	NJG 2318 VH

Single row full complement cylindrical roller bearings

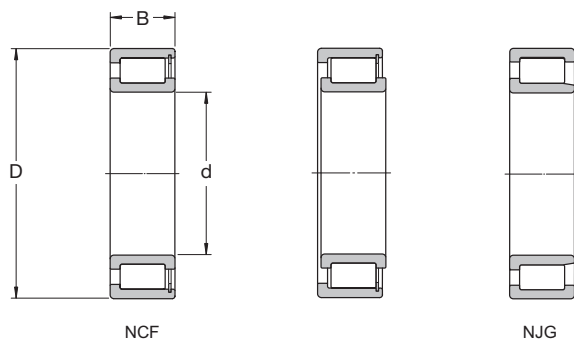
d 100 - 200 mm
d 3.937 - 7.874 in

Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass kg	Designation
d	D	B	d	D	B	dynamic	static		Refer- ence speed	Limiting speed		
			in			kN		kN	r/min		–	
100	140	24	3.937	5.512	0.945	128	200	24.5	2 200	2 600	1.14	NCF 2920 CV
	150	37		5.906	1.457	209	310	37.5	2 000	2 600	2.15	NCF 3020 CV
	215	73		8.465	2.874	682	865	104	1 200	1 500	13	NJG 2320 VH
110	150	24	4.331	5.906	0.945	134	220	26	1 900	2 400	1.23	NCF 2922 CV
	170	45		6.693	1.772	275	400	47.5	1 800	2 200	3.5	NCF 3022 CV
	240	80		9.449	3.150	858	1 060	122	1 100	1 300	17.5	NJG 2322 VH
120	165	27	4.724	6.496	1.063	172	290	34.5	1 800	2 200	1.73	NCF 2924 CV
	180	46		7.087	1.811	292	440	52	1 700	2 000	3.8	NCF 3024 CV
	215	58		8.465	2.283	512	735	85	1 400	1 700	9.05	NCF 2224 V
	260	86		10.236	3.386	952	1 250	140	1 000	1 200	22.5	NJG 2324 VH
130	180	30	5.118	7.087	1.181	205	360	40.5	1 600	2 000	2.33	NCF 2926 CV
	200	52		7.874	2.047	413	620	72	1 500	1 900	5.8	NCF 3026 CV
	280	93		11.024	3.661	1 080	1 430	156	950	1 200	28	NJG 2326 VH
140	190	30	5.512	7.480	1.181	220	390	43	1 500	1 900	2.42	NCF 2928 CV
	210	53		8.268	2.087	440	680	78	1 400	1 800	6.1	NCF 3028 CV
	250	68		9.843	2.677	693	1 020	114	1 200	1 500	14.5	NCF 2228 V
	300	102		11.811	4.016	1 210	1 600	173	850	1 100	35.5	NJG 2328 VH
150	210	36	5.906	8.268	1.417	292	490	55	1 400	1 700	3.77	NCF 2930 CV
	225	56		8.858	2.205	457	710	80	1 300	1 600	7.5	NCF 3030 CV
	270	73		10.630	2.874	792	1 180	132	1 100	1 400	18.4	NCF 2230 V
	320	108		12.598	4.252	1 450	1 930	196	800	1 000	42.5	NJG 2330 VH
160	220	36	6.299	8.661	1.417	303	530	58.5	1 300	1 600	4	NCF 2932 CV
	240	60		9.449	2.362	512	800	90	1 200	1 500	9.1	NCF 3032 CV
	290	80		11.417	3.150	990	1 500	160	950	1 200	23	NCF 2232 V
170	230	36	6.693	9.055	1.417	314	560	60	1 200	1 500	4.3	NCF 2934 CV
	260	67		10.236	2.638	671	1 060	118	1 100	1 400	12.5	NCF 3034 CV
	310	86		12.205	3.386	1 100	1 700	176	900	1 100	28.7	NCF 2234 V
	360	120		14.173	4.724	1 760	2 450	236	700	900	59.5	NJG 2334 VH
180	250	42	7.087	9.843	1.654	391	695	75	1 100	1 400	6.2	NCF 2936 CV
	280	74		11.024	2.913	781	1 250	134	1 100	1 300	16.5	NCF 3036 CV
	380	126		14.961	4.961	1 870	2 650	255	670	800	69.5	NJG 2336 VH
190	260	42	7.480	10.236	1.654	440	780	81.5	1 100	1 400	6.5	NCF 2938 CV
	290	75		11.417	2.953	792	1 290	140	1 000	1 300	17	NCF 3038 CV
	340	92		13.386	3.622	1 250	1 900	196	800	1 000	35.7	NCF 2238 V
	400	132		15.748	5.197	2 160	3 000	280	630	800	80	NJG 2338 VH
200	250	24	7.874	9.843	0.945	176	335	32.5	1 100	1 400	2.6	NCF 1840 V
	280	48		11.024	1.890	528	965	100	1 000	1 300	9.1	NCF 2940 CV
	310	82		12.205	3.228	913	1 530	160	950	1 200	22.5	NCF 3040 CV
	420	138		16.535	5.433	2 290	3 200	290	600	750	92	NJG 2340 VH

Single row full complement cylindrical roller bearings

d 220 - 420 mm

d 8.661 - 16.535 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass kg	Designation
d	D	B	d	D	B	dynamic C	static C_0		Refer- ence speed	Limiting speed		
			in			kN		kN	r/min		-	
220	270	24	8.661	10.630	0.945	183	365	34.5	1 000	1 200	2.85	NCF 1844 V
	300	48		11.811	1.890	550	1 060	108	950	1 200	9.9	NCF 2944 CV
	340	90		13.386	3.543	1 080	1 800	186	850	1 100	29.5	NCF 3044 CV
	400	108		15.748	4.252	1 830	2 750	255	700	850	58	NCF 2244 V
	460	145		18.110	5.709	2 550	3 550	320	530	670	111	NJG 2344 VH
240	300	28	9.449	11.811	1.102	260	510	47.5	900	1 100	4.4	NCF 1848 V
	320	48		12.598	1.890	583	1 140	114	850	1 100	10.6	NCF 2948 CV
	360	92		14.173	3.622	1 140	1 960	200	800	1 000	32	NCF 3048 CV
	500	155		19.685	6.102	2 810	3 900	345	500	630	147	NJG 2348 VH
260	320	28	10.236	12.598	1.102	270	550	50	800	1 000	4.75	NCF 1852 V
	360	60		14.173	2.362	748	1 430	143	750	950	18.5	NCF 2952 CV
	400	104		15.748	4.094	1 540	2 550	250	700	900	46.5	NCF 3052 CV
	540	165		21.260	6.496	3 410	4 800	415	430	530	177	NJG 2352 VH
280	350	33	11.024	13.780	1.299	341	695	64	750	950	7.1	NCF 1856 V
	380	60		14.961	2.362	880	1 730	166	700	900	19.7	NCF 2956 CV
	420	106		16.535	4.173	1 570	2 650	260	670	850	50	NCF 3056 CV
300	380	38	11.811	14.961	1.496	418	850	75	670	850	10	NCF 1860 V
	420	72		16.535	2.835	1 120	2 200	208	670	800	31.2	NCF 2960 CV
	460	118		18.110	4.646	1 900	3 250	300	600	750	69	NCF 3060 CV
320	400	38	12.598	15.748	1.496	440	900	80	630	800	10.5	NCF 1864 V
	440	72		17.323	2.835	1 170	2 360	220	600	750	32.9	NCF 2964 CV
	480	121		18.898	4.764	1 980	3 450	310	560	700	74.5	NCF 3064 CV
340	420	38	13.386	16.535	1.496	446	950	83	600	750	11	NCF 1868 V
	460	72		18.110	2.835	1 190	2 500	228	560	700	35	NCF 2968 CV
	520	133		20.472	5.236	2 380	4 150	355	530	670	100	NCF 3068 CV
360	440	38	14.173	17.323	1.496	402	900	76.5	560	700	11.5	NCF 1872 V
	480	72		18.898	2.835	1 230	2 600	240	530	670	36.5	NCF 2972 CV
	540	134		21.260	5.276	2 420	4 300	365	500	630	105	NCF 3072 CV
380	480	46	14.961	18.898	1.811	627	1 290	114	530	670	19.5	NCF 1876 V
	520	82		20.472	3.228	1 570	3 250	300	500	630	52.5	NCF 2976 CV
	560	135		22.047	5.315	2 510	4 550	380	480	600	110	NCF 3076 CV
400	500	46	15.748	19.685	1.811	627	1 340	118	500	630	20.5	NCF 1880 V
	540	82		21.260	3.228	1 650	3 450	310	480	600	54.5	NCF 2980 CV
	600	148		23.622	5.827	2 970	5 500	450	450	560	145	NCF 3080 CV
420	520	46	16.535	20.472	1.811	660	1 430	122	480	600	21	NCF 1884 V
	560	82		22.047	3.228	1 650	3 600	315	450	560	57	NCF 2984 CV
	620	150		24.409	5.906	3 030	5 700	455	430	530	150	NCF 3084 CV

Single row full complement cylindrical roller bearings

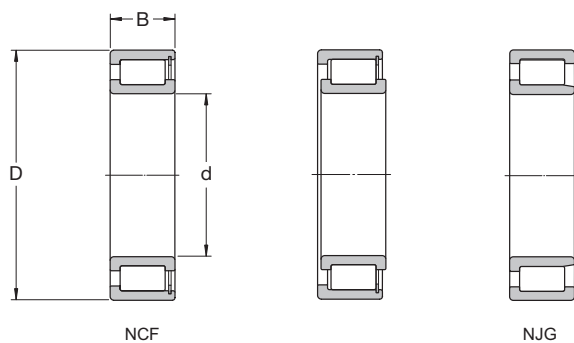
d 440 - 750 mm
d 17.323 - 29.528 in

Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass	Designation
d	D	B	d	D	B	dynamic	static		Refer- ence speed	Limiting speed		
			in			kN		kN	r/min	kg	—	
440	540	46	17.323	21.260	1.811	671	1 460	125	450	560	22	NCF 1888 V
	540	60		21.260	2.362	968	2 360	204	450	560	29	NCF 2888 V
	600	95		23.622	3.740	2 010	4 400	380	430	530	80.5	NCF 2988 V
	650	157		25.591	6.181	3 580	6 550	520	400	500	175	NCF 3088 CV
460	580	56	18.110	22.835	2.205	913	1 960	163	430	530	34	NCF 1892 V
	580	72		22.835	2.835	1 300	3 050	260	430	530	44	NCF 2892 V
	620	95		24.409	3.740	2 050	4 500	390	400	500	83.5	NCF 2992 V
	680	163		26.772	6.417	3 690	6 950	540	380	480	195	NCF 3092 CV
480	600	56	18.898	23.622	2.205	935	2 040	170	400	500	35.5	NCF 1896 V
	600	72		23.622	2.835	1 320	3 150	265	400	500	46	NCF 2896 V
	650	100		25.591	3.937	2 290	4 900	405	380	480	98	NCF 2996 V
	700	165		27.559	6.496	3 740	7 200	550	360	450	205	NCF 3096 CV
500	620	56	19.685	24.409	2.205	952	2 120	173	380	480	36.5	NCF 18/500 V
	620	72		24.409	2.835	1 340	3 350	275	380	480	48	NCF 28/500 V
	670	100		26.378	3.937	2 330	5 000	415	380	450	100	NCF 29/500 V
	720	167		28.346	6.575	3 800	7 500	570	360	450	215	NCF 30/500 CV
530	650	56	20.866	25.591	2.205	990	2 240	180	360	450	38.5	NCF 18/530 V
	650	72		25.591	2.835	1 400	3 450	285	360	450	49.5	NCF 28/530 V
	710	106		27.953	4.173	2 640	6 100	480	340	430	120	NCF 29/530 V
	780	185		30.709	7.283	5 230	10 600	780	320	400	300	NCF 30/530 V
560	680	56	22.047	26.772	2.205	1 020	2 360	186	340	430	40.5	NCF 18/560 V
	680	72		26.772	2.835	1 420	3 650	300	340	430	54	NCF 28/560 V
	750	112		29.528	4.409	3 080	6 700	500	320	400	140	NCF 29/560 V
	820	195		32.283	7.677	5 830	11 800	865	300	380	345	NCF 30/560 V
600	730	60	23.622	28.740	2.362	1 050	2 550	196	320	400	51.5	NCF 18/600 V
	730	78		28.740	3.071	1 570	4 300	340	320	400	67.5	NCF 28/600 V
	800	118		31.496	4.646	3 190	7 100	520	300	380	170	NCF 29/600 V
630	780	69	24.803	30.709	2.717	1 250	2 900	232	300	360	72.5	NCF 18/630 V
	780	88		30.709	3.465	1 870	5 000	390	300	360	92.5	NCF 28/630 V
	850	128		33.465	5.039	3 740	8 650	610	280	340	205	NCF 29/630 V
670	820	69	26.378	32.283	2.717	1 300	3 150	245	280	340	76.5	NCF 18/670 V
	820	88		32.283	3.465	1 940	5 300	415	280	340	97.5	NCF 28/670 V
	900	136		35.433	5.354	3 910	9 000	630	260	320	245	NCF 29/670 V
710	870	74	27.953	34.252	2.913	1 540	3 750	285	260	320	92.5	NCF 18/710 V
	870	95		34.252	3.740	2 330	6 300	480	260	320	115	NCF 28/710 V
	950	140		37.402	5.512	4 290	10 000	695	240	300	275	NCF 29/710 V
750	920	78	29.528	36.220	3.071	1 870	4 500	335	240	300	110	NCF 18/750 V
	920	100		36.220	3.937	2 640	6 950	520	240	300	140	NCF 28/750 V
	1 000	145		39.370	5.709	4 460	10 600	710	220	280	315	NCF 29/750 V

Single row full complement cylindrical roller bearings

d 800 - 1 120 mm

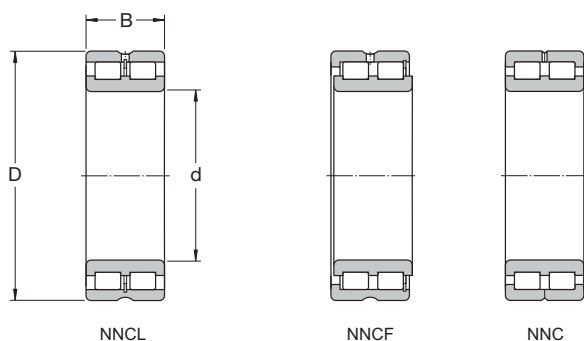
d 31.496 - 44.094 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass	Designation
d	D	B	d	D	B	dynamic	static		Reference speed	Limiting speed		
mm			in			kN		kN	r/min	kg	—	
800	980	82	31.496	38.583	3.228	1 940	4 800	345	220	280	130	NCF 18/800 V
	980	106		38.583	4.173	2 750	7 500	550	220	280	165	NCF 28/800 V
	1 060	150		41.732	5.906	4 950	12 200	800	200	260	360	NCF 29/800 V
850	1 030	82	33.465	40.551	3.228	2 010	5 100	365	200	260	135	NCF 18/850 V
	1 030	106		40.551	4.173	2 860	8 000	570	200	260	175	NCF 28/850 V
	1 120	155		44.094	6.102	5 230	12 700	830	190	240	405	NCF 29/850 V
900	1 090	85	35.433	42.913	3.346	2 380	6 000	425	190	240	160	NCF 18/900 V
	1 090	112		42.913	4.409	3 190	9 150	655	190	240	208	NCF 28/900 V
	1 180	165		46.457	6.496	5 940	14 600	950	170	220	472	NCF 29/900 V
950	1 150	90	37.402	45.276	3.543	2 420	6 300	440	170	220	185	NCF 18/950 V
	1 150	118		45.276	4.646	3 410	9 800	655	170	220	240	NCF 28/950 V
	1 250	175		49.213	6.890	6 600	16 300	1 020	160	200	565	NCF 29/950 V
1 000	1 220	100	39.370	48.031	3.937	2 920	7 500	455	160	200	230	NCF 18/1000 V
	1 320	185		51.968	7.283	7 480	18 600	1 160	150	190	680	NCF 29/1000 V
1 120	1 360	106	44.094	53.543	4.173	3 740	9 650	585	130	170	298	NCF 18/1120 V

Double row full complement cylindrical roller bearings

d 20 - 100 mm
d 0.787 - 3.937 in

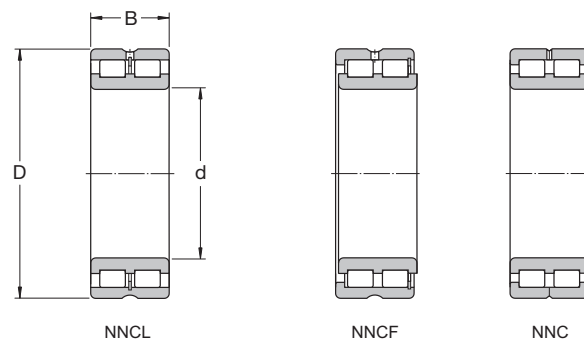


Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass	Designation
d	D	B	d	D	B	dynamic	static		Refer-ence speed	Limiting speed		
mm			in			kN		kN	r/min	kg	—	
20	42	30	0.787	1.654	1.181	52.3	57	6.2	8 500	10 000	0.2	NNCF 5004 CV
25	47	30	0.984	1.850	1.181	59.4	71	7.65	7 000	9 000	0.23	NNCF 5005 CV
30	55	34	1.181	2.165	1.339	73.7	88	10	6 000	7 500	0.35	NNCF 5006 CV
35	62	36	1.378	2.441	1.417	89.7	112	12.9	5 300	6 700	0.46	NNCF 5007 CV
40	68	38	1.575	2.677	1.496	106	140	16.3	4 800	6 000	0.56	NNCF 5008 CV
45	75	40	1.772	2.953	1.575	112	156	18.3	4 300	5 300	0.71	NNCF 5009 CV
50	80	40	1.969	3.150	1.575	142	196	23.6	4 000	5 000	0.76	NNCF 5010 CV
55	90	46	2.165	3.543	1.811	190	280	34.5	3 400	4 300	1.16	NNCF 5011 CV
60	85	25	2.362	3.346	0.984	78.1	137	14.3	3 600	4 500	0.49	NNCF 4912 CV
	85	25		3.346	0.984	78.1	137	14.3	3 600	4 500	0.49	NNC 4912 CV
	85	25		3.346	0.984	78.1	137	14.3	3 600	4 500	0.49	NNCL 4912 CV
	95	46		3.740	1.811	198	300	36.5	3 400	4 000	1.24	NNCF 5012 CV
65	100	46	2.559	3.937	1.811	209	325	40	3 000	3 800	1.32	NNCF 5013 CV
70	100	30	2.756	3.937	1.181	114	193	22.4	3 000	3 800	0.78	NNCF 4914 CV
	100	30		3.937	1.181	114	193	22.4	3 000	3 800	0.78	NNC 4914 CV
	100	30		3.937	1.181	114	193	22.4	3 000	3 800	0.78	NNCL 4914 CV
	110	54		4.331	2.126	238	345	45	2 800	3 600	1.85	NNCF 5014 CV
75	115	54	2.953	4.528	2.126	251	380	49	2 600	3 200	1.93	NNCF 5015 CV
80	110	30	3.150	4.331	1.181	121	216	25	2 600	3 400	0.88	NNCF 4916 CV
	110	30		4.331	1.181	121	216	25	2 800	3 400	0.88	NNC 4916 CV
	110	30		4.331	1.181	121	216	25	2 600	3 400	0.88	NNCL 4916 CV
	125	60		4.921	2.362	308	455	58.5	2 400	3 000	2.59	NNCF 5016 CV
85	130	60	3.346	5.118	2.362	314	475	60	2 400	3 000	2.72	NNCF 5017 CV
90	125	35	3.543	4.921	1.378	161	300	35.5	2 400	3 000	1.35	NNCF 4918 CV
	125	35		4.921	1.378	161	300	35.5	2 400	3 000	1.35	NNC 4918 CV
	125	35		4.921	1.378	161	300	35.5	2 400	3 000	1.35	NNCL 4918 CV
	140	67		5.512	2.638	369	560	69.5	2 200	2 800	3.62	NNCF 5018 CV
100	140	40	3.937	5.512	1.575	209	400	46.5	2 000	2 600	2	NNCF 4920 CV
	140	40		5.512	1.575	209	400	46.5	2 000	2 600	1.95	NNC 4920 CV
	140	40		5.512	1.575	209	400	46.5	2 000	2 600	1.95	NNCL 4920 CV
	150	67		5.906	2.638	391	620	75	2 000	2 600	3.94	NNCF 5020 CV

Double row full complement cylindrical roller bearings

d 110 - 170 mm

d 4.331 - 6.693 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass kg	Designation
d	D	B	d	D	B	dynamic	static		Reference speed	Limiting speed		
mm			in			kN	C_0	kN	r/min		kg	—
110	150	40	4.331	5.906	1.575	220	430	49	1 900	2 400	2.15	NNCF 4922 CV
	150	40		5.906	1.575	220	430	49	1 900	2 400	2.15	NNC 4922 CV
	150	40	5.906	1.575	220	430	49	1 900	2 400	2.15	NNCL 4922 CV	
	170	80	6.693	3.150	512	800	95	1 800	2 200	6.32	NNCF 5022 CV	
120	165	45	4.724	6.496	1.772	242	480	53	1 700	2 200	2.95	NNCF 4924 CV
	165	45		6.496	1.772	242	480	53	1 700	2 200	2.95	NNC 4924 CV
	165	45	6.496	1.772	242	480	53	1 700	2 200	2.95	NNCL 4924 CV	
	180	80	7.087	3.150	539	880	104	1 700	2 000	6.77	NNCF 5024 CV	
130	180	50	5.118	7.087	1.969	275	530	60	1 600	2 000	3.95	NNCF 4926 CV
	180	50		7.087	1.969	275	530	60	1 600	2 000	3.95	NNC 4926 CV
	180	50	7.087	1.969	275	530	60	1 600	2 000	3.95	NNCL 4926 CV	
	200	95	7.874	3.740	765	1 250	143	1 500	1 900	10.2	NNCF 5026 CV	
140	190	50	5.512	7.480	1.969	286	570	63	1 500	1 900	4.2	NNCF 4928 CV
	190	50		7.480	1.969	286	570	63	1 500	1 900	4.2	NNC 4928 CV
	190	50	7.480	1.969	286	570	63	1 500	1 900	4.2	NNCL 4928 CV	
	210	95	8.268	3.740	809	1 370	156	1 400	1 800	11.1	NNCF 5028 CV	
150	190	40	5.906	7.480	1.575	255	585	60	1 500	1 800	2.7	NNCF 4830 CV
	190	40		7.480	1.575	255	585	60	1 500	1 800	2.9	NNC 4830 CV
	190	40	7.480	1.575	255	585	60	1 500	1 800	2.7	NNCL 4830 CV	
	210	60	8.268	2.362	429	830	91.5	1 400	1 700	6.65	NNCF 4930 CV	
	210	60	8.268	2.362	429	830	91.5	1 400	1 700	6.65	NNC 4930 CV	
	210	60	8.268	2.362	429	830	91.5	1 400	1 700	6.65	NNCL 4930 CV	
	225	100	8.858	3.937	842	1 430	160	1 300	1 700	13.3	NNCF 5030 CV	
	160	200	40	6.299	7.874	1.575	260	610	62	1 400	1 700	2.9
200		40	7.874		1.575	260	610	62	1 400	1 700	3.1	NNC 4832 CV
200		40	7.874	1.575	260	610	62	1 400	1 700	2.9	NNCL 4832 CV	
220		60	8.661	2.362	446	915	96.5	1 300	1 600	7	NNCF 4932 CV	
220		60	8.661	2.362	446	915	96.5	1 300	1 600	7	NNC 4932 CV	
220		60	8.661	2.362	446	915	96.5	1 300	1 600	7	NNCL 4932 CV	
240		109	9.449	4.291	952	1 600	180	1 200	1 500	16.2	NNCF 5032 CV	
170		215	45	6.693	8.465	1.772	286	655	65.5	1 300	1 600	3.9
	215	45	8.465		1.772	286	655	65.5	1 300	1 600	4.1	NNC 4834 CV
	215	45	8.465	1.772	286	655	65.5	1 300	1 600	3.9	NNCL 4834 CV	
	230	60	9.055	2.362	457	950	100	1 200	1 500	7.35	NNCF 4934 CV	
	230	60	9.055	2.362	457	950	100	1 200	1 500	7.35	NNC 4934 CV	
	230	60	9.055	2.362	457	950	100	1 200	1 500	7.35	NNCL 4934 CV	
	260	122	10.236	4.803	1 230	2 120	236	1 100	1 400	23	NNCF 5034 CV	

Double row full complement cylindrical roller bearings

d 180 - 240 mm

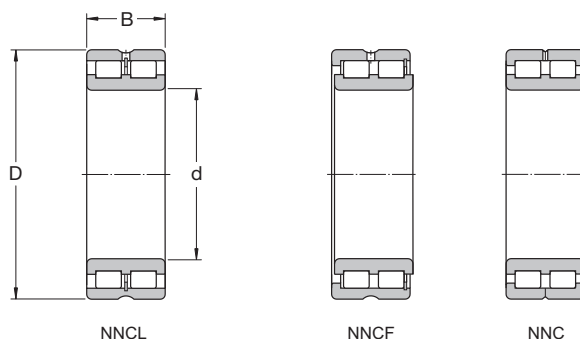
d 7.087 - 9.449 in

Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass	Designation	
d	D	B	d	D	B	dynamic	static		Refer- ence speed	Limiting speed			
			in			kN		kN	r/min	kg	–		
180	225	45	7.087	8.858	1.772	297	695	69.5	1 200	1 500	4	NNCF 4836 CV	
	225	45		8.858	1.772	297	695	69.5	1 200	1 500	4.3	NNC 4836 CV	
	225	45		8.858	1.772	297	695	69.5	1 200	1 500	4	NNCL 4836 CV	
		250	69		9.843	2.717	594	1 220	127	1 100	1 400	10.8	NNCF 4936 CV
		250	69		9.843	2.717	594	1 220	127	1 100	1 400	10.8	NNC 4936 CV
		250	69		9.843	2.717	594	1 220	127	1 100	1 400	10.8	NNCL 4936 CV
		280	136		11.024	5.354	1 420	2 500	270	1 100	1 300	30.5	NNCF 5036 CV
	190	240	50	7.480	9.449	1.969	330	750	76.5	1 100	1 400	5.3	NNCF 4838 CV
		240	50		9.449	1.969	330	750	76.5	1 100	1 400	5.65	NNC 4838 CV
240		50	9.449		1.969	330	750	76.5	1 100	1 400	5.3	NNCL 4838 CV	
		260	69		10.236	2.717	605	1 290	132	1 100	1 400	11.2	NNCF 4938 CV
		260	69		10.236	2.717	605	1 290	132	1 100	1 400	11.2	NNC 4938 CV
		260	69		10.236	2.717	605	1 290	132	1 100	1 400	11.2	NNCL 4938 CV
		290	136		11.417	5.354	1 470	2 600	280	1 000	1 300	31.5	NNCF 5038 CV
200		250	50	7.874	9.843	1.969	336	800	80	1 100	1 400	5.5	NNCF 4840 CV
		250	50		9.843	1.969	336	800	80	1 100	1 400	5.9	NNC 4840 CV
	250	50	9.843		1.969	336	800	80	1 100	1 400	5.5	NNCL 4840 CV	
		280	80		11.024	3.150	704	1 500	153	1 000	1 300	15.8	NNCF 4940 CV
		280	80		11.024	3.150	704	1 500	153	1 000	1 300	15.8	NNC 4940 CV
		280	80		11.024	3.150	704	1 500	153	1 000	1 300	15.8	NNCL 4940 CV
		310	150		12.205	5.906	1 680	3 050	320	950	1 200	41	NNCF 5040 CV
	220	270	50	8.661	10.630	1.969	352	865	85	1 000	1 200	5.9	NNCF 4844 CV
		270	50		10.630	1.969	352	865	85	1 000	1 200	6.4	NNC 4844 CV
270		50	10.630		1.969	352	865	85	1 000	1 200	5.9	NNCL 4844 CV	
		300	80		11.811	3.150	737	1 600	160	950	1 200	17.2	NNCF 4944 CV
		300	80		11.811	3.150	737	1 600	160	950	1 200	17.2	NNC 4944 CV
		300	80		11.811	3.150	737	1 600	160	950	1 200	17.2	NNCL 4944 CV
		340	160		13.386	6.299	2 010	3 600	375	850	1 100	52.5	NNCF 5044 CV
240		300	60	9.449	11.811	2.362	539	1 290	125	900	1 100	9.1	NNCF 4848 CV
		300	60		11.811	2.362	539	1 290	125	900	1 100	10	NNC 4848 CV
	300	60	11.811		2.362	539	1 290	125	900	1 100	9.1	NNCL 4848 CV	
		320	80		12.598	3.150	781	1 760	173	850	1 100	18.5	NNCF 4948 CV
		320	80		12.598	3.150	781	1 760	173	850	1 100	18.5	NNC 4948 CV
		320	80		12.598	3.150	781	1 760	173	850	1 100	18.5	NNCL 4948 CV
		360	160		14.173	6.299	2 120	3 900	400	800	1 000	56	NNCF 5048 CV

Double row full complement cylindrical roller bearings

d 260 - 340 mm

d 10.236 - 13.386 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass kg	Designation
d	D	B	d	D	B	dynamic C	static C_0		Refer- ence speed	Limiting speed		
			in				kN		kN	r/min		
260	320	60	10.236	12.598	2.362	561	1 400	132	800	1 000	9.7	NNCF 4852 CV
	320	60		12.598	2.362	561	1 400	132	800	1 000	11	NNC 4852 CV
	320	60		12.598	2.362	561	1 400	132	800	1 000	9.7	NNCL 4852 CV
	360	100		14.173	3.937	1 170	2 550	245	750	950	32	NNCF 4952 CV
	360	100		14.173	3.937	1 170	2 550	245	750	950	32	NNC 4952 CV
	360	100		14.173	3.937	1 170	2 550	245	750	950	32	NNCL 4952 CV
	400	190		15.748	7.480	2 860	5 200	520	700	900	85.5	NNCF 5052 CV
280	350	69	11.024	13.780	2.717	737	1 860	173	750	950	15.3	NNCF 4856 CV
	350	69		13.780	2.717	737	1 860	173	750	950	16	NNC 4856 CV
	350	69		13.780	2.717	737	1 860	173	750	950	15.3	NNCL 4856 CV
	380	100		14.961	3.937	1 210	2 700	255	700	900	34	NNCF 4956 CV
	380	100		14.961	3.937	1 210	2 700	255	700	900	34	NNC 4956 CV
	380	100		14.961	3.937	1 210	2 700	255	700	900	34	NNCL 4956 CV
	420	190		16.535	7.480	2 920	5 600	540	670	850	90.5	NNCF 5056 CV
300	380	80	11.811	14.961	3.150	858	2 120	196	700	850	21.8	NNCF 4860 CV
	380	80		14.961	3.150	858	2 120	196	700	850	23	NNC 4860 CV
	380	80		14.961	3.150	858	2 120	196	700	850	21.8	NNCL 4860 CV
	420	118		16.535	4.646	1 680	3 750	355	670	800	53	NNCF 4960 CV
	420	118		16.535	4.646	1 680	3 750	355	670	800	53	NNC 4960 CV
	420	118		16.535	4.646	1 680	3 750	355	670	800	53	NNCL 4960 CV
	460	218		18.110	8.583	3 250	6 550	600	600	750	130	NNCF 5060 CV
320	400	80	12.598	15.748	3.150	897	2 280	208	630	800	22.7	NNCF 4864 CV
	400	80		15.748	3.150	897	2 280	208	630	800	24	NNC 4864 CV
	400	80		15.748	3.150	897	2 280	208	630	800	22.7	NNCL 4864 CV
	440	118		17.323	4.646	1 760	4 050	375	600	750	56	NNCF 4964 CV
	440	118		17.323	4.646	1 760	4 050	375	600	750	56	NNC 4964 CV
	440	118		17.323	4.646	1 760	4 050	375	600	750	56	NNCL 4964 CV
	480	218		18.898	8.583	3 690	6 950	620	560	700	135	NNCF 5064 CV
340	420	80	13.386	16.535	3.150	913	2 400	216	600	750	25.5	NNCF 4868 CV
	420	80		16.535	3.150	913	2 400	216	600	750	25.5	NNC 4868 CV
	420	80		16.535	3.150	913	2 400	216	600	750	25.5	NNCL 4868 CV
	460	118		18.110	4.646	1 790	4 250	390	560	700	59	NNCF 4968 CV
	460	118		18.110	4.646	1 790	4 250	390	560	700	59	NNC 4968 CV
	460	118		18.110	4.646	1 790	4 250	390	560	700	59	NNCL 4968 CV
	520	243		20.472	9.567	4 400	8 300	710	530	670	185	NNCF 5068 CV

Double row full complement cylindrical roller bearings

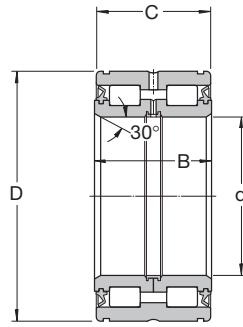
d 360 - 400 mm
d 14.173 - 15.748 in

Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass kg	Designation	
d	D	B	d	D	B	dynamic C	static C_0		Refer- ence speed	Limiting speed			
			in			kN		kN	r/min			—	
360	440	80	14.173	17.323	3.150	935	2 550	224	560	700	27	NNCF 4872 CV	
	440	80		17.323	3.150	935	2 550	224	560	700	27	NNC 4872 CV	
	440	80		17.323	3.150	935	2 550	224	560	700	27	NNCL 4872 CV	
	480	118		18.898	4.646	1 830	4 500	405	530	670	62.1	NNCF 4972 CV	
	480	118		18.898	4.646	1 830	4 500	405	530	670	62.1	NNC 4972 CV	
	480	118		18.898	4.646	1 830	4 500	405	530	670	60.8	NNCL 4972 CV	
	540	243		21.260	9.567	4 460	8 650	735	500	630	195	NNCF 5072 CV	
	380	480	100	14.961	18.898	3.937	1 400	3 650	315	530	670	45.5	NNCF 4876 CV
		480	100		18.898	3.937	1 400	3 650	315	530	670	45.5	NNC 4876 CV
480		100	18.898		3.937	1 400	3 650	315	530	670	45.5	NNCL 4876 CV	
520		140		20.472	5.512	2 380	5 700	500	500	630	92.4	NNCF 4976 CV	
520		140		20.472	5.512	2 380	5 700	500	500	630	92.4	NNC 4976 CV	
520		140		20.472	5.512	2 380	5 700	500	500	630	92.4	NNCL 4976 CV	
560		243		22.047	9.567	4 680	9 150	735	480	600	200	NNCF 5076 CV	
400		500	100	15.748	19.685	3.937	1 420	3 750	325	500	630	46.5	NNCF 4880 CV
		500	100		19.685	3.937	1 420	3 750	325	500	630	46.5	NNC 4880 CV
	500	100	19.685		3.937	1 420	3 750	325	500	630	46.5	NNCL 4880 CV	
	540	140		21.260	5.512	2 420	6 000	520	480	600	96.5	NNCF 4980 CV	
	540	140		21.260	5.512	2 420	6 000	520	480	600	96.5	NNC 4980 CV	
	540	140		21.260	5.512	2 420	6 000	520	480	600	96.5	NNCL 4980 CV	
	600	272		23.622	10.709	5 500	11 000	900	450	560	270	NNCF 5080 CV	

Sealed double row full complement cylindrical roller bearings

d 20 - 160 mm

d 0.787 - 6.299 in



Principal dimensions								Basic load ratings		Fatigue load limit P_u	Limiting speed	Mass	Designation
d	D	B	C	d	D	B	C	dynamic	static				
				in				kN		kN	r/min	kg	—
20	42	30	29	0.787	1.654	1.181	1.142	44	52	5.4	3 600	0.21	NNF 5004 ADA-2LSV
25	47	30	29	0.984	1.850	1.181	1.142	48.4	62	6.4	3 000	0.23	NNF 5005 ADA-2LSV
30	55	34	33	1.181	2.165	1.339	1.299	57.2	75	7.8	2 600	0.35	NNF 5006 ADA-2LSV
35	62	36	35	1.378	2.441	1.417	1.378	70.4	91.5	10.2	2 200	0.45	NNF 5007 ADA-2LSV
40	68	38	37	1.575	2.677	1.496	1.457	85.8	116	13.4	2 000	0.53	NNF 5008 ADA-2LSV
45	75	40	39	1.772	2.953	1.575	1.535	102	146	17	1 800	0.68	NNF 5009 ADA-2LSV
50	80	40	39	1.969	3.150	1.575	1.535	108	160	18.6	1 700	0.73	NNF 5010 ADA-2LSV
55	90	46	45	2.165	3.543	1.811	1.772	128	193	22.8	1 500	1.1	NNF 5011 ADA-2LSV
60	95	46	45	2.362	3.740	1.811	1.772	134	208	25	1 400	1.2	NNF 5012 ADA-2LSV
65	100	46	45	2.559	3.937	1.811	1.772	138	224	26.5	1 300	1.3	NNF 5013 ADA-2LSV
70	110	54	53	2.756	4.331	2.126	2.087	205	325	40.5	1 200	1.85	NNF 5014 ADA-2LSV
75	115	54	53	2.953	4.528	2.126	2.087	216	355	44	1 100	2	NNF 5015 ADA-2LSV
80	125	60	59	3.150	4.921	2.362	2.323	251	415	53	1 000	2.7	NNF 5016 ADA-2LSV
85	130	60	59	3.346	5.118	2.362	2.323	270	430	55	1 000	2.75	NNF 5017 ADA-2LSV
90	140	67	66	3.543	5.512	2.638	2.598	319	550	69.5	900	3.8	NNF 5018 ADA-2LSV
95	145	67	66	3.740	5.709	2.638	2.598	330	570	71	900	3.95	NNF 5019 ADA-2LSV
100	150	67	66	3.937	5.906	2.638	2.598	336	570	68	850	4.05	NNF 5020 ADA-2LSV
110	170	80	79	4.331	6.693	3.150	3.110	413	695	81.5	750	6.45	NNF 5022 ADA-2LSV
120	180	80	79	4.724	7.087	3.150	3.110	429	750	86.5	700	6.9	NNF 5024 ADA-2LSV
130	190	80	79	5.118	7.480	3.150	3.110	446	815	91.5	670	7.5	319426 DA-2LS
	200	95	94		7.874	3.740	3.701	616	1 040	120	630	10.5	NNF 5026 ADA-2LSV
140	200	80	79	5.512	7.874	3.150	3.110	468	865	96.5	630	8	319428 DA-2LS
	210	95	94		8.268	3.740	3.701	644	1 120	127	600	11	NNF 5028 ADA-2LSV
150	210	80	79	5.906	8.268	3.150	3.110	468	900	96.5	560	8.4	319430 DA-2LS
	225	100	99		8.858	3.937	3.898	748	1 290	143	560	13.5	NNF 5030 ADA-2LSV
160	220	80	79	6.299	8.661	3.150	3.110	501	1 000	106	530	8.8	319432 DA-2LS
	240	109	108		9.449	4.291	4.252	781	1 400	153	500	16.5	NNF 5032 ADA-2LSV

Sealed double row full complement cylindrical roller bearings

d 170 - 240 mm

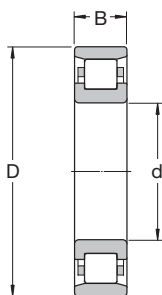
d 6.693 - 9.449 in

Principal dimensions								Basic load ratings		Fatigue load limit P_u	Limiting speed	Mass	Designation
d	D	B	C	d	D	B	C	C	C_0				
mm				in				kN		kN	r/min	kg	–
170	230	80	79	6.693	9.055	3.150	3.110	512	1 060	110	530	9.3	319434 DA-2LS
	260	122	121		10.236	4.803	4.764	1 010	1 800	193	480	22.5	NNF 5034 ADA-2LSV
180	240	80	79	7.087	9.449	3.150	3.110	528	1 100	114	500	9.8	319436 DA-2LS
	280	136	135		11.024	5.354	5.315	1 170	2 120	228	450	30	NNF 5036 ADA-2LSV
190	260	80	79	7.480	10.236	3.150	3.110	550	1 180	120	450	12.7	319438 DA-2LS
	290	136	135		11.417	5.354	5.315	1 190	2 200	236	430	31.5	NNF 5038 ADA-2LSV
200	270	80	79	7.874	10.630	3.150	3.110	561	1 250	125	430	13.2	319440 DA-2LS
	310	150	149		12.205	5.906	5.866	1 450	2 900	300	400	42	NNF 5040 ADA-2LSV
220	340	160	159	8.661	13.386	6.299	6.260	1 610	3 100	315	360	53.5	NNF 5044 ADA-2LSV
240	360	160	159	9.449	14.173	6.299	6.260	1 680	3 350	335	340	57.5	NNF 5048 ADA-2LSV

Cylindrical roller bearings

d 0.7500 - 7.0000 in

d 19.050 - 177.800 mm

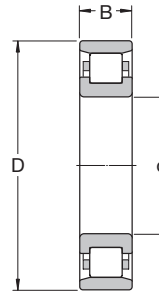


Bearing Number	Principal Dimensions			d	D	B	Basic dynamic load rating C	Speed ratings		Mass
	d	D	B					Lubrication grease	oil	
	in			mm			kN	rpm	rpm	kg
CRL 6 A	0.7500	1.8750	0.5625	19.050	47.625	14.288	23.300	13 000	16 000	0.12
CRL 7 A	0.8750	2.0000	0.5625	22.225	50.800	14.288	25.100	12 000	15 000	0.13
CRL 8 A	1.0000	2.1250	0.6250	25.400	53.975	15.875	30.300	10 000	13 000	0.17
CRL 9 A	1.1250	2.5000	0.6250	28.575	63.500	15.875	37.400	9 500	12 000	0.21
CRL 10 A	1.2500	2.7500	0.6875	31.750	69.850	17.462	44.600	8 500	10 000	0.28
CRL 11 A	1.3750	3.0000	0.6875	34.925	76.200	17.462	47.300	8 000	9 500	0.34
CRL 12 A	1.5000	3.2500	0.7500	38.100	82.550	19.050	56.100	7 500	9 000	0.43
CRL 13 A	1.6250	3.5000	0.7500	41.257	88.900	19.050	60.500	6 700	8 000	0.51
CRL 14 A	1.7500	3.7500	0.8125	44.450	95.250	20.638	70.400	6 300	7 500	0.64
CRL 15 A	1.8750	4.0000	0.8125	47.625	101.600	20.638	73.700	6 000	7 000	0.75
CRL 16 A	2.0000	4.0000	0.8125	50.800	101.600	20.638	73.700	6 000	7 000	0.71
CRL 18 A	2.2500	4.5000	0.8750	57.150	114.300	22.225	95.200	5 300	6 300	0.99
CRL 20 A	2.5000	5.0000	0.9375	63.500	127.000	23.812	108.000	4 800	5 600	1.30
CRL 22 A	2.7500	5.2500	0.9375	69.850	133.350	23.812	112.000	4 300	5 000	1.40
CRL 24 A	3.0000	5.7500	1.0625	76.200	146.050	26.988	145.000	4 000	4 800	1.88
CRL 26 MB	3.2500	6.0000	1.0625	82.550	152.400	26.988	145.000	4 000	4 800	2.19
CRL 28 A	3.5000	6.5000	1.1250	88.900	165.100	28.575	165.000	3 600	4 300	2.49
CRL 30 MB	3.7500	6.7500	1.1250	95.250	171.450	28.575	172.000	3 600	4 300	2.86
CRL 32 MB	4.0000	7.2500	1.2500	101.600	184.150	31.750	212.000	3 400	4 000	3.67
CRL 34 MB	4.2500	7.5000	1.2500	107.950	190.510	31.750	209.000	3 200	3 800	3.83
CRL 36 MB	4.5000	8.0000	1.3125	114.300	203.200	33.338	238.000	3 000	3 600	4.62
CRL 38 MB	4.7500	8.2500	1.3125	120.650	209.550	33.338	260.000	2 800	3 400	4.85
CRL 40 MB	5.0000	9.0000	1.3750	127.000	228.600	34.925	281.000	2 600	3 200	6.48
CRL 44 MB	5.5000	9.5000	1.3750	139.700	241.300	34.925	297.000	2 400	3 000	6.98
CRL 48 MB	6.0000	10.5000	1.5625	152.400	266.700	39.688	374.000	2 000	2 600	9.70
CRL 52 MB	6.5000	11.0000	1.5625	165.100	279.400	39.688	391.000	2 000	2 600	10.20
CRL 56 MB	7.0000	12.0000	1.7500	177.800	304.800	44.450	457.000	2 000	2 600	14.20

Cylindrical roller bearings

d 0.6250 - 6.5000 mm

d 15.875 - 165.100 in

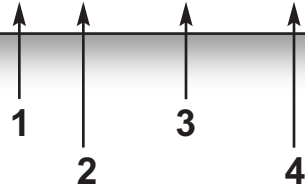


Bearing Number	Principal Dimensions			d	D	B	Basic dynamic load rating C	Speed ratings		Mass
	d	D	B					Lubrication grease	oil	
	in			mm			kN	rpm	rpm	kg
CRM 5 A	0.6250	1.8125	0.6250	15.875	46.038	15.875	20.100	13 000	16 000	0.12
CRM 6 A	0.7500	2.0000	0.6875	19.050	50.800	17.462	25.500	11 000	14 000	0.15
CRM 7 A	0.8750	2.2500	0.6875	22.225	57.150	17.462	31.900	9 500	12 000	0.19
CRM 8 A	1.0000	2.5000	0.7500	25.400	63.500	19.050	41.300	9 000	11 000	0.26
CRM 9 A	1.1250	2.8125	0.8125	28.575	71.438	20.638	49.500	8 500	10 000	0.37
CRM 10 A	1.2500	3.1250	0.8750	31.750	79.375	22.225	60.500	7 500	9 000	0.52
CRM 11 A	1.3750	3.5000	0.8750	34.925	88.900	22.225	74.800	6 700	8 000	0.66
CRM 12 A	1.5000	3.7500	0.9375	38.100	95.250	23.812	85.800	6 300	7 500	0.81
CRM 13 A	1.6250	4.0000	0.9375	41.257	101.600	23.812	91.300	5 600	6 700	0.93
CRM 14 A	1.7500	4.2500	1.0625	44.450	107.950	26.988	105.000	5 300	6 300	1.13
CRM 15 A	1.8750	4.5000	1.0625	47.625	114.300	26.988	110.000	5 000	6 000	1.30
CRM 16 A	2.0000	4.5000	1.0625	50.800	114.300	26.988	110.000	5 000	6 000	1.24
CRM 18 A	2.2500	5.0000	1.2500	57.150	127.000	31.750	138.000	4 500	5 300	1.70
CRM 20 A	2.5000	5.5000	1.2500	63.500	139.700	31.750	145.000	4 000	4 800	2.16
CRM 22 A	2.7500	6.2500	1.3750	69.850	158.750	34.925	212.000	3 600	4 300	3.16
CRM 24 A	3.0000	7.0000	1.5625	76.200	177.800	39.688	281.000	3 200	3 800	4.56
CRM 26 MB	3.2500	7.5000	1.5625	82.550	190.500	39.688	260.000	3 200	3 800	5.90
CRM 27 MB	3.3750	7.5000	1.5625	85.725	190.500	39.688	260.000	3 200	3 800	5.76
CRM 28 MB	3.5000	8.1250	1.7500	88.900	206.375	44.450	303.000	3 000	3 600	7.71
CRM 30 MB	3.7500	8.2500	1.7500	95.250	209.550	44.450	319.000	2 800	3 400	7.66
CRM 32 MB	4.0000	8.5000	1.7500	101.600	215.900	44.450	319.000	2 800	3 400	7.98
CRM 34 MB	4.2500	8.7500	1.7500	107.950	222.250	44.450	336.000	2 600	3 200	8.40
CRM 36 MB	4.5000	9.3150	2.0000	114.300	238.125	50.800	380.000	2 400	3 000	10.90
CRM 38 MB	4.7500	10.0000	2.0000	120.650	254.000	50.800	429.000	2 200	2 800	12.60
CRM 40 MB	5.0000	10.0000	2.0000	127.000	254.000	50.800	429.000	2 200	2 800	12.10
CRM 44 MB	5.5000	11.0000	2.0000	139.700	279.400	50.800	501.000	1 900	2 400	14.60
CRM 48 MB	6.0000	12.0000	2.2500	152.400	304.800	57.150	627.000	1 800	2 200	20.20
CRM 52 MB	6.5000	13.0000	2.5000	165.100	330.200	63.500	682.000	1 700	2 000	26.60



Taper Roller Bearings

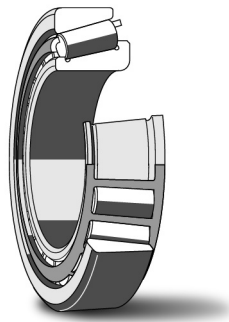
32302 B J2 / Q CL7A



1. Contact Angles		3. Features	
B	Steep contact angle	Q	Improved friction torque characteristics and raceway geometry
-	Standard contact angle (no symbol)		
2. Internal Designs		4. Quality	
DB	Duplex (2) bearings in back-to-back arrangement including spacers for both rings	CL7A	Standard SKF quality for pinion bearings
DF	Duplex (2) bearings face-to-face arrangement including 1 outer ring spacer	CL7C	Special SKF quality for pinion bearings
J2	Internal design changed to pressed steel cage rolling element guided	VQ051	Modified internal geometry for increased permissible misalignment
X	Boundary dimensions according to ISO standards	C...	i.e. C220 = axial clearance in paired bearings

Technical Features

Boundary Dimensions	In accordance with ISO 355-1977 DIN 616 (large bearings)
Tolerances	Normal, with O/D over 420 mm the running accuracy is P6
Heat Stabilization	Bearings up to 165mm O/D 302°F (125°C) 166-420mm O/D 392°F (150°C)
Misalignment	3 minutes of arc (logarithmic profile rollers)
Cage Material	
Standard	Steel
Optional	None
Axial Load - max	Contact SKF Application Engineering
Seals	Not available

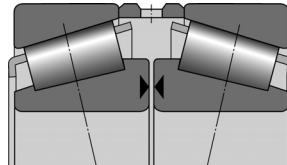


*Single Row
Taper Roller Bearing
(data tables on page 146)*

Table 1 Total width tolerances and standard internal clearance of matched single row metric taper roller bearings

Bore diameter d			Total width tolerance TsDF											
			Series 320 X				Series 302, 322				Series 313 (X)			
over	incl.		max	min	max	min	max	min	max	min	max	max	min	
mm	inches		µm	inches	µm	inches	µm	inches	µm	inches	µm	inches	µm	inches
-	30	1.1811	+550	+100	0.0217	0.0039	+550	+100	0.0217	0.0039	+500	+50	0.0197	0.0020
30	40	1.1811	+550	+100	0.0217	0.0039	+600	+150	0.0236	0.0059	+550	+50	0.0217	0.0020
40	50	1.5748	+600	+150	0.0236	0.0059	+600	+200	0.0236	0.0079	+550	+50	0.0217	0.0020
50	65	1.9685	+600	+150	0.0236	0.0059	+600	+200	0.0236	0.0079	+550	+100	0.0217	0.0039
65	80	2.5591	+600	+200	0.0236	0.0078	+650	+200	0.0256	0.0079	+600	+100	0.0236	0.0039
80	100	3.1496	+650	-250	0.0256	-0.0098	+700	-200	0.0276	-0.0079	+600	-300	0.0236	-0.0118
100	120	3.9370	+700	-200	0.0276	-0.0079	+700	-200	0.0276	-0.0079	+600	-300	0.0236	-0.0118
120	140	4.7244	1000	-300	0.0394	-0.0118	1000	-300	0.0394	-0.0118	+950	-350	0.0374	-0.0138
140	160	5.5118	1050	-250	0.0413	-0.0098	1050	-250	0.0413	-0.0098	+950	-350	0.0374	-0.0138
160	180	6.2992	1100	-200	0.0433	-0.0079	1100	-200	0.0433	-0.0079	-	-	-	-
180	200	7.0866	1100	-200	0.0433	-0.0079	1100	-200	0.0433	-0.0079	-	-	-	-
200	225	7.8740	1150	-150	0.0453	-0.0059	1150	-150	0.0453	-0.0059	-	-	-	-
225	250	8.8583	1200	-100	0.0472	-0.0039	1200	-100	0.0472	-0.0039	-	-	-	-
250	280	9.8425	1250	-50	0.0492	-0.0020	+250	-50	0.0492	-0.0020	-	-	-	-

Axial internal clearance of matched single row metric taper roller bearings face to face

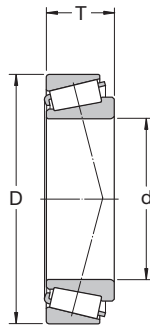


Bore diameter	Axial internal clearance of matched bearings of series											
	329		320 X		330		331, 302, 322, 332		303, 323		313 (X)	
over incl.	min	max	min	max	min	max	min	max	min	max	min	max
mm	µm											
- 30	-	-	80	120	-	-	100	140	130	170	60	100
30 40	-	-	100	140	-	-	120	160	140	180	70	110
40 50	-	-	120	160	180	220	140	180	160	200	80	120
50 65	-	-	140	180	200	240	160	200	180	220	100	140
65 80	-	-	160	200	250	290	180	220	200	260	110	170
80 100	270	310	190	230	350	390	210	270	240	300	110	170
100 120	270	330	220	280	340	400	220	280	280	340	130	190
120 140	310	370	240	300	340	400	240	300	330	390	160	220
140 160	370	430	270	330	340	400	270	330	370	430	180	240
160 180	370	430	310	370	-	-	310	370	390	450	-	-
180 190	370	430	340	400	-	-	340	400	440	500	-	-
190 200	390	450	340	400	-	-	340	400	440	500	-	-
200 225	440	500	390	450	-	-	390	450	490	550	-	-
225 250	440	500	440	500	-	-	440	500	540	600	-	-
250 280	540	600	490	550	-	-	490	550	-	-	-	-
280 300	640	700	540	600	-	-	540	600	-	-	-	-
300 340	640	700	590	650	-	-	590	650	-	-	-	-

Metric single row taper roller bearings

d 15 - 35 mm

d 0.591 - 1.378 in



Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass	Designation	Dimension Series to ISO 355 (ABMA)
d	D	T	d	D	T	dynamic	static		Refer- ence speed	Limiting speed			
mm			in			kN		kN	r/min	kg	–	–	
15	42	14.25	0.591	1.654	0.561	22.4	20	2.08	13 000	18 000	0.095	30302 J2	2FB
17	40	13.25	0.669	1.575	0.522	19	18.6	1.83	13 000	18 000	0.075	30203 J2	2DB
	47	15.25		1.850	0.600	28.1	25	2.75	12 000	16 000	0.13	30303 J2	2FB
	47	20.25		1.850	0.797	40	33.5	3.65	12 000	16 000	0.17	*32303 J2/Q	2FD
20	42	15	0.787	1.654	0.591	28	27	2.7	13 000	16 000	0.097	*32004 X/Q	3CC
	47	15.25		1.850	0.600	32	28	3	12 000	15 000	0.12	*30204 J2/Q	2DB
	52	16.25		2.047	0.640	39	32.5	3.6	12 000	14 000	0.17	*30304 J2/Q	2FB
	52	22.25		2.047	0.876	51	45.5	5	12 000	14 000	0.23	*32304 J2/Q	2FD
22	44	15	0.866	1.732	0.591	25.1	29	2.85	11 000	15 000	0.1	320/22 X	3CC
25	47	15	0.984	1.850	0.591	31	32.5	3.25	12 000	14 000	0.11	*32005 X/Q	4CC
	52	16.25		2.047	0.640	35.5	33.5	3.45	11 000	13 000	0.15	*30205 J2/Q	3CC
	52	19.25		2.047	0.758	41.5	44	4.65	10 000	13 000	0.19	*32205 BJ2/Q	5CD
	52	22		2.047	0.866	54	56	6	10 000	13 000	0.23	*33205/Q	2DE
	62	18.25		2.441	0.719	44.6	43	4.75	9 000	12 000	0.26	30305 J2	2FB
	62	18.25		2.441	0.719	38	40	4.4	7 500	11 000	0.26	31305 J2	7FB
	62	25.25		2.441	0.994	60.5	63	7.1	8 000	12 000	0.36	32305 J2	2FD
28	52	16	1.102	2.047	0.630	36.5	38	4	10 000	13 000	0.15	*320/28 X/Q	4CC
	58	17.25		2.283	0.679	38	41.5	4.4	9 000	12 000	0.25	302/28 J2	–
	58	20.25		2.283	0.797	48	50	5.5	9 500	12 000	0.25	*322/28 BJ2/Q	5DD
30	55	17	1.181	2.165	0.669	40.5	44	4.55	10 000	12 000	0.17	*32006 X/Q	4CC
	62	17.25		2.441	0.679	46.5	44	4.8	9 000	11 000	0.23	*30206 J2/Q	3DB
	62	21.25		2.441	0.837	58.5	57	6.3	9 000	11 000	0.28	*32206 J2/Q	3DC
	62	21.25		2.441	0.837	56	58.5	6.55	9 000	11 000	0.3	*32206 BJ2/QCL7CVA606	5DC
	62	25		2.441	0.984	75	76.5	8.5	8 500	11 000	0.37	*33206/Q	2DE
	72	20.75		2.835	0.817	64	56	6.4	8 000	10 000	0.39	*30306 J2/Q	2FB
	72	20.75		2.835	0.817	55	50	5.7	7 500	9 500	0.39	*31306 J2/Q	7FB
	72	28.75		2.835	1.132	88	85	9.65	7 500	10 000	0.55	*32306 J2/Q	2FD
32	53	14.5	1.260	2.087	0.571	27	35.5	3.65	9 000	12 000	0.11	JL 26749 F/710	(L 26700)
	58	17		2.283	0.669	42.5	46.5	4.8	9 000	11 000	0.19	*320/32 X/Q	4CC
35	62	18	1.378	2.441	0.709	49	54	5.85	8 500	11 000	0.22	*32007 X/Q	4CC
	62	18		2.441	0.709	43	49	5.2	8 500	11 000	0.22	*32007 J2/Q	–
	72	18.25		2.835	0.719	58.5	56	6.1	8 000	9 500	0.32	*30207 J2/Q	3DB
	72	24.25		2.835	0.955	76.5	78	8.5	8 000	9 500	0.43	*32207 J2/Q	3DC
	72	28		2.835	1.102	96.5	106	11.8	7 000	9 500	0.56	*33207/Q	2DE
	80	22.75		3.150	0.896	83	73.5	8.3	7 500	9 000	0.52	*30307 J2/Q	2FB
	80	22.75		3.150	0.896	71	67	7.8	6 300	8 500	0.52	*31307 J2/Q	7FB
	80	32.75		3.150	1.289	95.2	106	12.2	6 700	9 000	0.73	32307 J2/Q	2FE
	80	32.75		3.150	1.289	93.5	114	13.2	6 300	8 500	0.8	32307 BJ2/Q	5FE

* SKF Explorer bearing

Metric single row taper roller bearings

d 37 - 46 mm

d 1.457 - 1.811 in

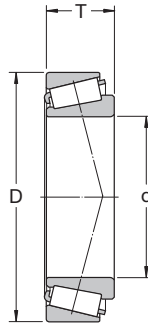
Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass	Designation	Dimension Series to ISO 355 (ABMA)
d	D	T	d	D	T	C	C_0		Refer-ence speed	Limiting speed			
mm			in			kN		kN	r/min		kg	—	—
37	80	32.75	1.457	3.150	1.289	93.5	114	13.2	6 300	8 500	0.85	32307/37 BJ2/Q	—
38	63	17	1.496	2.480	0.669	42.5	52	5.4	8 500	11 000	0.2	*JL 69349 A/310/Q	(L 69300)
	63	17		2.480	0.669	42.5	52	5.4	8 500	11 000	0.2	*JL 69349 X/310/Q	(L 69300)
	63	17		2.480	0.669	42.5	52	5.4	8 500	11 000	0.19	*JL 69349/310/Q	(L 69300)
	63	17		2.480	0.669	42.5	52	5.4	8 500	11 000	0.19	*JL 69345 F/310/Q	(L 69300)
	68	19	2.677	0.748	60	71	7.65	7 500	10 000	0.28	*32008/38 X/Q	—	
40	68	19	1.575	2.677	0.748	60	71	7.65	7 500	9 500	0.27	*32008 X/Q	3CD
	68	19		2.677	0.748	60	71	7.65	7 500	9 500	0.27	*32008 XTN9/Q	3CD
	75	26		2.953	1.024	91.5	104	11.4	7 000	9 000	0.51	*33108/Q	2CE
	80	19.75		3.150	0.778	71	68	7.65	7 000	8 500	0.42	*30208 J2/Q	3DB
	80	24.75		3.150	0.974	85	86.5	9.8	7 000	8 500	0.53	*32208 J2/Q	3DC
	80	24.75		3.150	0.974	86.5	93	10.8	6 700	8 500	0.52	*32208 BJ2/Q	5DC
	80	32		3.150	1.260	120	132	15	6 300	8 500	0.77	*33208/QCL7C	2DE
	85	33		3.346	1.299	121	150	17.3	6 000	9 000	0.9	T2EE 040/QVB134	2EE
	90	25.25		3.543	0.994	100	95	10.8	6 300	8 000	0.72	*30308 J2/Q	2FB
	90	25.25		3.543	0.994	85	81.5	9.5	5 600	7 500	0.72	*31308 J2/QCL7C	7FB
90	35.25		3.543	1.388	117	140	16	5 300	8 000	1	32308 J2/Q	2FD	
45	75	20	1.772	2.953	0.787	67	80	8.8	7 000	8 500	0.34	*32009 X/Q	3CC
	80	26		3.150	1.024	96.5	114	12.9	6 700	8 000	0.56	*33109/Q	3CE
	85	20638		3.346	812.518	81.5	81.5	9.3	6 700	8 500	0.5	*358 X/354 X/Q	-355
	85	20.75		3.346	0.817	76.5	76.5	8.65	6 300	8 000	0.48	*30209 J2/Q	3DB
	85	24.75		3.346	0.974	91.5	98	11	6 300	8 000	0.58	*32209 J2/Q	3DC
	85	32		3.346	1.260	108	143	16.3	5 300	7 500	0.82	33209/Q	3DE
	90	24.75		3.543	0.974	95	104	12.2	6 000	8 000	0.65	*32210/45 BJ2/QVB022	—
	95	29		3.740	1.142	104	112	12.7	5 300	7 000	0.92	*T7FC 045/HN3QCL7C	7FC
	95	36		3.740	1.417	106	146	16.6	5 300	8 000	1.2	T2ED 045	2ED
	100	27.25		3.937	1.073	125	120	14.3	5 600	7 000	0.97	*30309 J2/Q	2FB
	100	27.25		3.937	1.073	106	102	12.5	5 000	6 700	0.95	*31309 J2/QCL7C	7FB
	100	38.25		3.937	1.506	140	170	20.4	4 800	7 000	1.35	32309 J2/Q	2FD
	100	38.25		3.937	1.506	156	176	20	5 000	6 700	1.45	*32309 BJ2/QCL7C	5FD
46	75	18	1.811	2.953	0.709	58.5	71	7.65	7 000	9 500	0.3	*LM 503349/310/QCL7C	(LM 503300)

* SKF Explorer bearing

Metric single row taper roller bearings

d 50 - 55 mm

d 1.969 - 2.165 in



Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass	Designation	Dimension Series to ISO 355 (ABMA)
d	D	T	d	D	T	dynamic	static		Refer- ence speed	Limiting speed			
mm			in			kN		kN	r/min		kg	—	—
50	80	20	1.969	3.150	0.787	69.5	88	9.65	6 300	8 000	0.37	*32010 X/Q	3CC
	80	20		3.150	0.787	69.5	88	9.65	6 300	8 000	0.37	*32010 X/QCL7CVB026	3CC
	80	24		3.150	0.945	80	102	11.4	6 300	8 000	0.45	*33010/Q	2CE
	82	21.5		3.228	0.846	83	100	11	6 300	8 500	0.43	*JLM 104948 AA/910 AA/Q	(LM 104900)
	85	26		3.346	1.024	100	122	13.4	6 000	7 500	0.59	*33110/Q	3CE
	90	21.75		3.543	0.856	86.5	91.5	10.4	6 000	7 500	0.54	*30210 J2/Q	3DB
	90	24.75		3.543	0.974	95	100	11.4	6 000	7 500	0.61	*32210 J2/Q	3DC
	90	28		3.543	1.102	122	140	16	6 000	8 000	0.75	*JM 205149/110/Q	(M 205100)
	90	28		3.543	1.102	122	140	16	6 000	8 000	0.75	*JM 205149/110 A/Q	(M 205100)
	90	32		3.543	1.260	114	160	18.3	5 000	7 000	0.9	33210/Q	3DE
	100	36		3.937	1.417	154	200	22.4	5 000	7 500	1.3	T2ED 050/Q	2ED
	105	32		4.134	1.260	125	137	16	4 800	6 300	1.2	*T7FC 050/QCL7C	7FC
	110	29.25		4.331	1.152	143	140	16.6	5 300	6 300	1.25	*30310 J2/Q	2FB
	110	29.25		4.331	1.152	122	120	14.3	4 500	6 000	1.2	*31310 J2/QCL7C	7FB
	110	42.25		4.331	1.663	172	212	24	4 300	6 300	1.8	32310 J2/Q	2FD
	110	42.25		4.331	1.663	172	212	24	4 300	6 300	1.8	32310 TN9	2FD
110	42.25		4.331	1.663	183	216	24.5	4 500	6 000	1.85	*32310 BJ2/QCL7C	5FD	
55	90	23	2.165	3.543	0.906	93	116	12.9	5 600	7 000	0.55	*32011 X/Q	3CC
	90	27		3.543	1.063	104	137	15.3	5 600	7 000	0.67	*33011/Q	2CE
	95	30		3.740	1.181	110	156	17.6	5 000	6 700	0.86	33111/Q	3CE
	100	22.75		3.937	0.896	104	106	12	5 300	6 700	0.7	*30211 J2/Q	3DB
	100	26.75		3.937	1.053	106	129	15	5 000	6 700	0.83	32211 J2/Q	3DC
	100	35		3.937	1.378	138	190	21.6	4 500	6 300	1.2	33211/Q	3DE
	110	39		4.331	1.535	179	232	26	4 500	6 700	1.7	T2ED 055/QCLN	2ED
	115	34		4.528	1.339	146	163	19.3	4 300	5 600	1.6	*T7FC 055/QCL7C	7FC
	120	31.5		4.724	1.240	166	163	19.3	4 800	5 600	1.55	*30311 J2/Q	2FB
	120	31.5		4.724	1.240	140	137	16.6	4 300	5 600	1.55	*31311 J2/QCL7C	7FB
	120	45.5		4.724	1.791	198	250	28.5	4 000	5 600	2.3	32311 J2	2FD
	120	45.5		4.724	1.791	216	260	30	4 300	5 600	2.5	*32311 BJ2/QCL7C	5FD

* SKF Explorer bearing

Metric single row taper roller bearings

d 60 - 70 mm

d 2.36 - 2.756 in

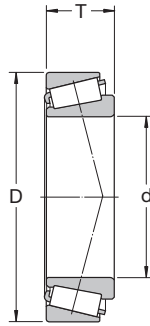
Principal dimensions						Basic load ratings		Fatigue load limit	Speed ratings		Mass	Designation	Dimension	
d	D	T	d	D	T	C	C ₀	P _u	Refer-ence speed	Limiting speed	kg	–	Series to ISO 355 (ABMA)	
mm			in			kN		kN	r/min			–	–	
60	95	23	2.362	3.740	0.906	95	122	13.4	5 300	6 700	0.59	*32012 X/QCL7C	4CC	
	95	24		3.740	0.945	96.5	132	15	5 300	7 000	0.63	*JLM 508748/710/Q	2CE	
	95	27		3.740	1.063	106	143	16	5 300	6 700	0.71	*33012/Q	2CE	
	100	30		3.937	1.181	134	170	19.6	5 300	6 300	0.92	*33112/Q	3CE	
	110	23.75	4.331	0.935	112	114	13.2	5 000	6 000	0.88	*30212 J2/Q	3EB		
	110	29.75	4.331	1.171	146	160	18.6	5 000	6 000	1.15	*32212 J2/Q	3EC		
	110	29.75	4.331	1.171	140	156	19	4 800	6 000	1.15	*32212 BJ2/Q	–		
	110	38	4.331	1.496	168	236	26.5	4 000	6 000	1.6	33212/Q	3EE		
	115	40	4.528	1.575	194	260	30	4 300	6 300	1.85	T2EE 060/Q	2EE		
	130	33.5	5.118	1.319	168	196	23.6	4 000	5 300	1.95	30312 J2/Q	2FB		
	130	33.5	5.118	1.319	166	166	20.4	3 800	5 300	1.9	*31312 J2/QCL7C	7FB		
	130	48.5	5.118	1.909	229	290	34	3 600	5 300	2.85	32312 J2/Q	2FD		
	130	48.5	5.118	1.909	255	305	35.5	3 800	5 000	2.8	*32312 BJ2/QCL7C	5FD		
	65	100	23	2.559	3.937	0.906	96.5	127	14	5 000	6 000	0.63	*32013 X/Q	4CC
		100	27		3.937	1.063	110	153	17.3	5 000	6 300	0.78	*33013/Q	2CE
		110	28	4.331	1.102	143	283	21.2	4 800	6 300	1.05	*JM 511946/910/Q	(M 511900)	
110		31	4.331	1.220	138	193	22.4	4 300	6 300	1.15	T2DD 065/Q	2DD		
110		34	4.331	1.339	142	208	24	4 300	5 600	1.3	33113/Q	3DE		
120		24.75	4.724	0.974	132	134	16.3	4 500	5 600	1.15	*30213 J2/Q	3EB		
120		32.75	4.724	1.289	151	193	22.8	4 000	5 600	1.5	32213 J2/Q	3EC		
120		41	4.724	1.614	194	270	30.5	3 800	5 300	2.05	33213/Q	3EE		
120		41	4.724	1.614	194	270	30.5	3 800	5 300	2.05	33213 TN9/Q	3EE		
130		37	5.118	1.457	180	216	25.5	3 800	5 000	2.2	*T7FC 065/QCL7C	7FC		
140		36	5.512	1.417	194	228	27.5	3 600	4 800	2.4	30313 J2/Q	2GB		
140		36	5.512	1.417	190	193	23.6	3 600	4 800	2.35	*31313 J2/QCL7C	7GB		
140		51	5.512	2.008	264	335	40	3 400	4 800	3.45	32313 J2/Q	2GD		
140		51	5.512	2.008	285	345	40.5	3 600	4 800	3.35	*32313 BJ2/QU4CL7CVQ267	5GD		
70		110	25	2.756	4.331	0.984	116	153	17.3	4 500	5 600	0.84	*32014 X/Q	4CC
		110	31		4.331	1.220	130	196	22.8	4 300	5 600	1.1	33014	2CE
	120	37	4.724		1.457	172	250	30	4 000	5 300	1.7	33114/Q	3DE	
	125	26.25	4.921	1.033	125	156	18	4 000	5 300	1.25	30214 J2/Q	3EB		
	125	33.25	4.921	1.309	157	208	24.5	3 800	5 300	1.6	32214 J2/Q	3EC		
	125	41	4.921	1.614	201	285	32.5	3 600	5 000	2.1	33214/Q	3EE		
	130	43	5.118	1.693	233	325	38	3 800	5 600	2.45	T2ED 070/QCLNVB061	2ED		
	140	39	5.512	1.535	204	240	27.5	3 400	4 500	2.65	*T7FC 070/QCL7C	7FC		
	150	38	5.906	1.496	220	260	31	3 400	4 500	2.9	30314 J2/Q	2GB		
	150	38	5.906	1.496	216	220	27	3 400	4 500	2.95	*31314 J2/QCL7C	7GB		
	150	54	5.906	2.126	297	380	45	3 200	4 500	4.3	32314 J2/Q	2GD		
	150	54	5.906	2.126	325	400	46.5	3 400	4 300	4.25	*32314 BJ2/QCL7C	5GD		

* SKF Explorer bearing

Metric single row taper roller bearings

d 75 - 85 mm

d 2.953 - 3.346 in



Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass	Designation	Dimension Series to ISO 355 (ABMA)	
d	D	T	d	D	T	dynamic	static		Refer- ence speed	Limiting speed				
mm			in			kN		kN	r/min	kg	–	–		
75	105	20	2.953	4.134	0.787	81.5	116	13.2	4 800	6 300	0.52	*32915 TN9/QVG900	2BC	
	115	25		4.528	0.984	122	163	18.6	4 300	5 300	0.9	*32015 X/Q	4CC	
	115	31		4.528	1.220	134	228	26	4 000	5 300	1.15	33015/Q	2CE	
	120	31		4.724	1.220	160	216	25	4 300	5 600	1.3	*JM 714249/210/Q	(M 714200)	
	125	37		4.921	1.457	176	265	31.5	3 800	5 000	1.8	33115/Q	3DE	
	130	27.25		5.118	1.073	140	176	20.4	3 800	5 000	1.4	30215 J2/Q	4DB	
	130	33.25		5.118	1.309	161	212	24.5	3 600	5 000	1.7	32215 J2/Q	4DC	
	130	41		5.118	1.614	209	300	34	3 400	4 800	2.25	33215/Q	3EE	
	145	52		5.709	2.047	297	450	51	3 400	4 800	3.95	T3FE 075/QVB481	3FE	
	150	42		5.906	1.654	232	280	31	3 200	4 300	3.25	*T7FC 075/QCL7C	7FC	
	160	40		6.299	1.575	246	290	34	3 200	4 300	3.45	30315 J2/Q	2GB	
	160	40		6.299	1.575	240	245	29	3 200	4 300	3.5	*31315 J2/QCL7C	7GB	
	160	58		6.299	2.283	336	440	51	3 000	4 300	5.2	32315 J2	2GD	
	160	58		6.299	2.283	380	475	55	3 200	4 000	5.55	*32315 BJ2/QCL7C	5GD	
	80	125	29	3.150	4.921	1.142	138	216	24.5	3 600	5 000	1.3	32016 X/Q	3CC
125		36	4.921		1.417	168	285	32	3 600	5 000	1.65	33016/Q	2CE	
130		35		5.118	1.378	176	275	32.5	3 600	5 300	1.7	JM 515649/610/Q	(M515600)	
130		37		5.118	1.457	179	280	32.5	3 600	4 800	1.9	33116/Q	3DE	
130		37		5.118	1.457	179	280	32.5	3 600	4 800	1.9	33116 TN9/Q	3DE	
140		28.25		5.512	1.112	151	183	21.2	3 400	4 800	1.6	30216 J2/Q	3EB	
140		35.25		5.512	1.388	187	245	28.5	3 400	4 500	2.05	32216 J2/Q	3EC	
140		46		5.512	1.811	251	375	41.5	3 200	4 500	2.9	33216/Q	3EE	
160		45		6.299	1.772	260	315	35.5	3 000	4 000	3.95	*T7FC 080/QCL7C	7FC	
170		42.5		6.693	1.673	270	320	38	3 000	4 300	4.1	30316 J2	2GB	
170		42.5		6.693	1.673	260	265	32	3 000	4 000	4.05	*31316 J1/QCL7C	7GB	
170		61.5		6.693	2.421	380	500	57	3 000	4 300	6.2	32316 J2	2GD	
85		130	29	3.346	5.118	1.142	140	224	25.5	3 400	4 800	1.35	32017 X/Q	4CC
		130	36		5.118	1.417	183	310	34.5	3 600	4 800	1.75	33017/Q	2CE
		140	41		5.512	1.614	220	340	38	3 400	4 500	2.45	33117/Q	3DE
	150	30.5		5.906	1.201	176	220	25.5	3 200	4 300	2.05	30217 J2/Q	3EB	
	150	38.5		5.906	1.516	212	285	33.5	3 200	4 300	2.6	32217 J2/Q	3EC	
	150	49		5.906	1.929	286	430	48	3 000	4 300	3.7	33217/Q	3EE	
	180	44.5		7.087	1.752	303	365	40.5	2 800	4 000	4.85	30317 J2	2GB	
	180	44.5		7.087	1.752	242	285	33.5	2 600	3 800	4.6	31317 J2	7GB	
	180	63.5		7.087	2.500	402	530	60	2 800	4 000	6.85	32317 J2	2GD	
	180	63.5		7.087	2.500	391	560	62	2 800	4 000	7.5	32317 BJ2	5GD	

* SKF Explorer bearing

Metric single row taper roller bearings

d 90 - 100 mm

d 3.543 - 3.937 in

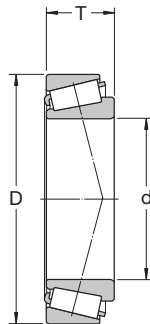
Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass	Designation	Dimension Series to ISO 355 (ABMA)	
d	D	T	d	D	T	dynamic	static		Refer-ence speed	Limiting speed				
mm			in			kN		kN	r/min		kg	–	–	
90	140	32	3.543	5.512	1.260	168	270	31	3 200	4 300	1.75	32018 X/Q	3CC	
	140	39		5.512	1.535	216	355	39	3 200	4 500	2.2		33018/Q	2CE
	145	35		5.709	1.378	201	305	35.5	3 200	4 800	2.1		JM 718149 A/110/Q	(M 718100)
	150	42		5.906	1.654	216	375	40.5	3 000	4 500	3	T5ED 090/QU4	5ED	
	150	45		5.906	1.772	251	390	43	3 000	4 300	3.1	33118/Q	3DE	
	150	45		5.906	1.772	251	390	43	3 000	4 300	3.1	33118 TN9/Q	3DE	
	160	32.5		6.299	1.280	194	245	28.5	3 000	4 000	2.55	30218 J2	3FB	
	160	42.5		6.299	1.673	251	340	38	3 000	4 000	3.35	32218 J2/Q	3FC	
	190	46.5		7.480	1.831	330	400	44	2 600	4 000	5.65	30318 J2	2GB	
	190	46.5		7.480	1.831	264	315	36.5	2 400	3 400	5.9	31318 J2	7GB	
	190	67.5		7.480	2.657	457	610	67	2 600	4 000	8.4	32318 J2	2GD	
	95	145	32	3.740	5.709	1.260	168	270	30.5	3 200	4 300	1.8	32019 X/Q	4CC
		145	39		5.709	1.535	220	375	40.5	3 200	4 300	2.3	33019/Q	2CE
		170	34.5		6.693	1.358	216	275	31.5	2 800	3 800	3	30219 J2	3FB
170		45.5		6.693	1.791	281	390	43	2 800	3 800	4.05	32219 J2	3FC	
170		58		6.693	2.283	374	560	62	2 600	3 800	5.5	33219	3FE	
180		49		7.087	1.929	275	400	44	2 400	3 400	5.25	T7FC 095/CL7CVQ051	7FC	
200		49.5		7.874	1.949	330	390	42.5	2 600	3 400	6.7	30319	2GB	
200		49.5		7.874	1.949	292	355	39	2 400	3 400	6.95	31319 J2	7GB	
200		71.5		7.874	2.815	501	670	72	2 400	3 400	11	32319 J2	2GD	
100		140	25	3.937	5.512	0.984	119	204	22.4	3 200	4 800	1.15	32920/Q	2CC
		145	24		5.709	0.945	125	190	20.8	3 200	4 500	1.15	T4CB 100/Q	4CB
	150	32	5.906		1.260	172	280	31	3 000	4 000	1.9	32020 X/Q	4CC	
	150	39	5.906		1.535	224	390	41.5	3 000	4 000	2.4	33020/Q	2CE	
	157	42		6.181	1.654	246	400	42.5	3 000	4 300	2.9	HM 220149/110/Q	(HM 220100)	
	160	41		6.299	1.614	246	390	41.5	2 800	4 300	3	JHM 720249/210/Q	(HM 720200)	
	165	47		6.496	1.850	314	480	53	2 800	4 300	3.9	T2EE 100	2EE	
	180	37		7.087	1.457	246	320	36	2 800	3 600	3.65	30220 J2	3FB	
	180	49		7.087	1.929	319	440	48	2 600	3 600	4.9	32220 J2	3FC	
	180	63		7.087	2.480	429	655	71	2 400	3 600	6.95	33220	3FE	
	215	51.5		8.465	2.028	402	490	53	2 400	3 200	8.05	30320 J2	2GB	
	215	56.5		8.465	2.224	430	465	51	2 400	3 000	8.6	*31320 XJ2/CL7CVQ051	7GB	
	215	77.5		8.465	3.051	572	780	83	2 200	3 000	12.5	32320 J2	2GD	

* SKF Explorer bearing

Metric single row taper roller bearings

d 105 - 140 mm

d 4.134 - 5.512 in



Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass	Designation	Dimension Series to ISO 355 (ABMA)
d	D	T	d	D	T	dynamic	static		Refer- ence speed	Limiting speed			
mm			in			kN		kN	r/min		kg	–	–
105	160	35	4.134	6.299	1.378	201	335	37.5	2 800	3 800	2.4	32021 X/Q	4DC
	160	43		6.299	1.693	246	430	45.5	2 800	3 800	3.05	33021/Q	2DE
	190	39		7.480	1.535	270	355	40	2 600	3 400	4.25	30221 J2	3FB
	190	53		7.480	2.087	358	510	55	2 600	3 400	6	32221 J2	3FC
	225	81.5		8.858	3.209	605	815	85	2 000	3 000	14.5	32321 J2	2GD
110	150	25	4.331	5.906	0.984	125	224	24	3 000	4 300	1.25	32922 X/Q	2CC
	170	38		6.693	1.496	233	390	42.5	2 600	3 600	3.05	32022 X/Q	4DC
	170	47		6.693	1.850	281	500	53	2 600	3 600	3.85	33022	2DE
	180	56		7.087	2.205	369	630	67	2 600	3 400	5.55	33122	3EE
	200	41		7.874	1.614	308	405	45	2 400	3 200	5.1	30222 J2	3FB
	200	56		7.874	2.205	402	570	61	2 400	3 200	7.1	32222 J2	3FC
	240	54.5		9.449	2.146	473	585	62	2 200	2 800	11	30322 J2	2GB
	240	63		9.449	2.480	457	585	62	1 900	2 800	12	31322 XJ2	7GB
	240	84.5		9.449	3.327	627	830	86.5	1 900	2 800	17	32322	2GD
	120	165	29	4.724	6.496	1.142	165	305	32	2 600	3 800	1.8	32924
170		27	6.693		1.063	157	250	26.5	2 600	3 800	1.7	T4CB 120	4CB
180		38	7.087		1.496	242	415	44	2 400	3 400	3.25	32024 X	4DC
180		48	7.087		1.890	292	540	56	2 600	3 400	4.2	33024	2DE
215		43.5		8.465	1.713	341	465	49	2 200	3 000	6.15	30224 J2	4FB
215		61.5		8.465	2.421	468	695	72	2 200	3 000	9.15	32224 J2	4FD
260		59.5		10.236	2.343	561	710	73.5	2 000	2 600	14	30324 J2	2GB
260		68		10.236	2.677	539	695	73.5	1 700	2 400	15.5	31324 XJ2	7GB
260		90.5		10.236	3.563	792	1 120	110	1 800	2 600	21.5	32324 J2	2GD
130		180	32	5.118	7.087	1.260	198	365	38	2 400	3 600	2.4	32926
	200	45	7.874		1.772	314	540	55	2 200	3 000	4.95	32026 X	4EC
	230	43.75	9.055		1.722	369	490	53	2 000	2 800	7.6	30226 J2	4FB
	230	67.75		9.055	2.667	550	830	85	2 000	2 800	11.5	32226 J2	4FD
	280	63.75		11.024	2.510	627	800	83	1 800	2 400	17	30326 J2	2GB
	280	72		11.024	2.835	605	780	81.5	1 600	2 400	18.5	31326 XJ2	7GB
140	190	32	5.512	7.480	1.260	205	390	40	2 200	3 400	2.55	32928	2CC
	195	29		7.677	1.142	194	325	33.5	2 200	3 200	2.4	T4CB 140	4CB
	210	45		8.268	1.772	330	585	58.5	2 200	2 800	5.25	32028 X	4DC
	250	45.75		9.843	1.801	418	570	58.5	1 900	2 600	8.65	30228 J2	4FB
	250	71.75		9.843	2.825	644	1 000	100	1 900	2 600	14.5	32228 J2	4FD
	300	77		11.811	3.031	693	900	88	1 500	2 200	24.5	31328 XJ2	7GB

* SKF Explorer bearing

Metric single row taper roller bearings

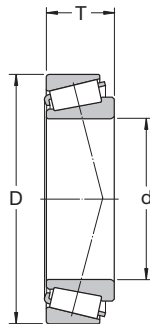
d 150 - 220 mm
d 5.906 - 8.661 in

Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass	Designation	Dimension Series to ISO 355 (ABMA)
d	D	T	d	D	T	dynamic	static		Refer- ence speed	Limiting speed			
mm			in			kN		kN	r/min		kg	—	—
150	210	32	5.906	8.268	1.260	233	390	40	2 000	3 000	3.05	T4DB 150	4DB
	225	48		8.858	1.890	369	655	65.5	2 000	2 600	6.35	32030 X	4EC
	225	59		8.858	2.323	457	865	86.5	2 000	2 600	8.15	33030	2EE
	270	49		10.630	1.929	429	560	57	1 800	2 400	11	30230	4GB
	270	77		10.630	3.031	737	1 140	112	1 700	2 400	17.5	32230 J2	4GD
	320	82		12.598	3.228	781	1 020	100	1 400	2 000	29.5	31330 XJ2	7GB
	160	220	32	6.299	8.661	1.260	242	415	41.5	2 000	2 800	3.25	T4DB 160
240		51	9.449		2.008	429	780	78	1 800	2 400	7.75	32032 X	4EC
245		61	9.646		2.402	528	980	95	1 800	2 600	10.5	T4EE 160/VB406	4EE
290		52		11.417	2.047	528	735	72	1 600	2 200	13	30232 J2	4GB
290		84		11.417	3.307	880	1 400	132	1 600	2 200	25.5	32232 J2	4GD
340		75		13.386	2.953	913	1 180	114	1 500	2 000	29	30332 J2	2GB
170		230	32	6.693	9.055	1.260	251	440	43	1 900	2 800	3.45	T4DB 170
	230	38	9.055		1.496	286	585	55	1 900	2 800	4.5	32934	3DC
	260	57	10.236		2.244	512	915	90	1 700	2 200	10.5	32034 X	4EC
	310	57		12.205	2.244	616	865	83	1 500	2 000	19	30234 J2	4GB
	310	91		12.205	3.583	1 010	1 630	150	1 500	2 000	28.5	32234 J2	4GD
	180	240	32	7.087	9.449	1.260	251	450	44	1 800	2 600	3.6	T4DB 180
250		45	9.843		1.772	352	735	68	1 700	2 600	6.65	32936	4DC
280		64	11.024		2.520	644	1 160	110	1 600	2 200	14.5	32036 X	3FD
320		57		12.598	2.244	583	815	80	1 500	2 000	20	30236 J2	4GB
320		91		12.598	3.583	1 010	1 630	150	1 400	1 900	29.5	32236 J2	4GD
190	260	45	7.480	10.236	1.772	358	765	72	1 600	2 400	7	32938	4DC
	260	46		10.236	1.811	380	800	75	1 600	2 400	6.7	JM 738249/210	(M 738200)
	290	64		11.417	2.520	660	1 200	112	1 500	2 000	15	32038 X	4FD
	340	60		13.386	2.362	721	1 000	95	1 400	1 800	24	30238 J2	4GB
200	270	37	7.874	10.630	1.457	330	600	57	1 600	2 400	5.45	T4DB 200	4DB
	280	51		11.024	2.008	473	950	88	1 500	2 200	9.5	32940	3EC
	310	70		12.205	2.756	748	1 370	127	1 400	1 900	19.5	32040 X	4FD
	360	64		14.173	2.520	792	1 120	106	1 300	1 700	25	30240 J2	4GB
	360	104		14.173	4.094	1 210	2 000	180	1 300	1 700	42.5	32240 J2	3GD
220	285	41	8.661	11.220	1.614	396	830	75	1 500	2 200	6.45	T2DC 220	2DC
	300	51		11.811	2.008	484	1 000	91.5	1 400	2 000	10	32944	3EC
	340	76		13.386	2.992	897	1 660	150	1 300	1 700	25.5	32044 X	4FD
	400	72		15.748	2.835	990	1 400	129	1 200	1 600	40	30244 J2	—
	400	114		15.748	4.488	1 610	2 700	232	1 100	1 500	60	32244 J2	—

Metric single row taper roller bearings

d 240 - 360 mm

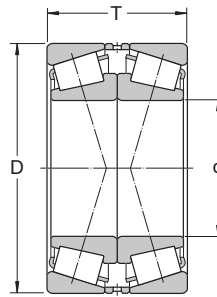
d 9.449 - 14.173 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass	Designation	Dimension Series to ISO 355 (ABMA)
d	D	T	d	D	T	dynamic	static		Refer-ence speed	Limiting speed			
mm			in			kN		kN	r/min		kg	–	–
240	320	42	9.449	12.598	1.654	429	815	73.5	1 300	1 900	8.45	T4EB 240/VE174	4EB
	320	51		12.598	2.008	512	1 080	96.5	1 300	1 900	11	32948	4EC
	320	57	12.598	2.244	616	1 320	120	1 300	1 900	12.5	T2EE 240/VB406	2EE	
	360	76	14.173	2.992	935	1 800	160	1 200	1 600	27.5	32048 X	4FD	
	440	127	17.323	5.000	1 790	3 350	275	1 000	1 400	83.5	32248 J3	–	
260	400	87	10.236	15.748	3.425	1 170	2 200	190	1 100	1 400	40	32052 X	4FC
	480	137		18.898	5.394	2 200	3 650	300	900	1 200	105	32252 J2/HA1	–
	540	113		21.260	4.449	2 120	3 050	250	850	1 200	110	30352 J2	–
280	380	63.5	11.024	14.961	2.500	765	1 660	143	1 100	1 600	20	32956/C02	4EC
	420	87		16.535	3.425	1 210	2 360	200	1 000	1 300	40.5	32056 X	4FC
300	420	76	11.811	16.535	2.992	1 050	2 240	190	950	1 400	32	32960	3FD
	460	100		18.110	3.937	1 540	3 000	250	900	1 200	58	32060 X	4GD
	540	149		21.260	5.866	2 750	4 750	365	800	1 100	140	32260 J2/HA1	–
320	440	76	12.598	17.323	2.992	1 080	2 360	196	900	1 300	33.5	32964	3FD
	480	100		18.898	3.937	1 540	3 100	255	850	1 100	64	32064 X	4GD
340	460	76	13.386	18.110	2.992	1 080	2 400	200	850	1 300	35	32968	4FD
360	480	76	14.173	18.898	2.992	1 120	2 550	204	800	1 200	37	32972	4FD

Single row taper roller bearings paired face-to-face

d 25 - 90 mm
d 0.984 - 3.543 in



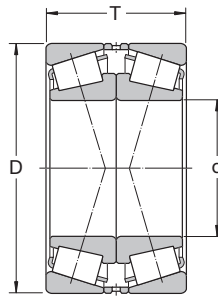
Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass	Designation
d	D	T	d	D	T	dynamic	static		Refer- ence speed	Limiting speed		
			in			kN		r/min		kg		-
25	62	36.5	0.984	2.441	1.437	64.4	80	8.65	6 000	11 000	0.55	31305 J2/QDF
30	72	41.5	1.181	2.835	1.634	93	100	11.4	5 600	9 500	0.85	*31306 J2/QDF
35	80	45.5	1.378	3.150	1.791	120	134	15.6	5 000	8 500	1.1	*31307 J2/QDF
40	90	50.5	1.575	3.543	1.988	146	163	19	4 500	7 500	1.5	*31308 J2/QCL7CDF
45	100	54.5	1.772	3.937	2.146	180	204	24.5	4 000	6 700	2	*31309 J2/QCL7CDF
50	90	43.5	1.969	3.543	1.713	150	183	20.8	4 800	7 500	1.1	*30210 J2/QDF
	110	58.5		4.331	2.303	208	240	28.5	3 600	6 000	2.6	*31310 J2/QCL7CDF
55	90	54	2.165	3.543	2.126	180	270	30.5	4 500	7 000	1.35	*33011/QDF03C170
	120	63		4.724	2.480	240	275	33.5	3 400	5 600	3.3	*31311 J2/QDF
60	95	46	2.362	3.740	1.378	163	245	27	4 300	6 700	1.9	*32012 X/QCL7CDFC250
	110	59.5		4.331	1.890	250	320	37.5	4 000	6 000	2.4	*32212 J2/QDFC290
	130	67		5.118	2.638	285	335	40.5	3 000	5 300	4.1	31312 J2/QDF
65	120	49.5	2.559	4.724	1.949	228	270	32.5	3 600	5 600	1.2	*30213 J2/QDF
	140	72		5.512	2.835	325	380	47.5	2 800	4 800	5.05	*31313 J2/QCL7CDF
70	110	50	2.756	4.331	1.496	200	305	34.5	3 800	5 600	1.8	*32014 X/QDF
	110	62		4.331	2.008	220	400	45.5	3 400	5 600	2.4	33014/DF
	150	76		5.906	2.992	365	440	54	2 600	4 500	6.15	*31314 J2/QCL7CDF
75	115	62	2.953	4.528	2.441	233	455	52	3 200	5 300	2.4	33015/QDF
	125	74		4.921	2.913	303	530	63	3 000	5 000	3.8	33115/QDFC150
	130	54.5		5.118	2.146	238	355	41.5	3 000	5 000	2.85	30215 J2/QDF
	130	66.5		5.118	2.618	275	425	49	3 000	5 000	3.4	32215 J2/QDF
	160	80		6.299	3.150	405	490	58.5	2 400	4 300	7.25	*31315 J2/QCL7CDF
80	125	58	3.150	4.921	2.283	233	430	49	3 000	5 000	2.65	32016 X/QDFC165
	140	70.5		5.512	2.776	319	490	57	2 800	4 500	4.25	32216 J2/QDF
	170	85		6.693	3.346	440	530	64	2 400	4 000	8.75	31316 J1/QCL7CDF
85	130	58	3.346	5.118	2.283	238	450	51	2 800	4 800	2.8	32017 X/QDF
	130	72		5.118	2.835	308	620	69.5	2 800	4 800	3.55	33017/QDFC240
	150	61		5.906	2.402	303	440	51	2 600	4 300	4.3	30217 J2/QDF
	150	77		5.906	3.031	369	570	65.5	2 600	4 300	5.45	32217 J2/QDF
	150	98		5.906	3.858	495	850	96.5	2 400	4 300	7.35	33217/QDF
	180	89		7.087	3.504	413	570	67	2 000	3 800	10	31317 J2/DF
90	140	64	3.543	5.512	2.520	292	540	62	2 600	4 300	3.65	32018 X/QDF
	140	78		5.512	3.071	369	710	78	2 600	4 500	4.5	33018/QDFC150
	160	65		6.299	2.559	336	490	57	2 400	4 000	5.15	30218 J2/DF
	160	85		6.299	3.346	429	680	76.5	2 400	4 000	6.9	32218 J2/QDF
	190	93		7.480	3.661	457	630	73.5	1 900	3 400	11.5	31318 J2/DF

* SKF Explorer bearing

Single row taper roller bearings paired face-to-face

d 95 - 170 mm

d 3.740 - 6.693 in



Principal dimensions						Basic load ratings		Fatigue	Speed ratings		Mass	Designation
d	D	T	d	D	T	dynamic	static	load limit	Refer-	Limiting		
mm			in			C	C ₀	P _u	ence	speed	kg	-
						kN		kN	speed			
95	145	78	3.740	5.709	3.071	380	735	81.5	2 600	4 300	5	33019/QDF
	170	91		6.693	3.583	484	780	86.5	2 200	3 800	8.45	32219 J2/DF
	200	99		7.874	3.898	501	710	78	1 800	3 400	13	31319 J2/DF
100	150	64	3.937	5.906	2.520	292	560	62	2 400	4 000	3.95	32020 X/QDF
	180	74		7.087	2.913	418	640	72	2 200	3 600	7.6	30220 J2/DF
	180	98		7.087	3.858	539	880	96.5	2 200	3 600	10	32220 J2/DF
	215	103		8.465	4.055	693	980	106	1 900	3 200	16.5	30320 J2/DFC400
	215	113		8.465	4.449	644	930	102	1 700	3 000	18	31320 XJ2/DF
105	160	70	4.134	6.299	2.756	347	670	73.5	2 200	3 800	5	32021 X/QDF
110	170	76	4.331	6.693	2.992	402	780	85	2 200	3 600	6.3	32022 X/QDF
	180	112		7.087	4.409	627	1 250	134	2 000	3 400	11.5	33122/DF
	200	82		7.874	3.228	523	800	90	2 000	3 200	10.5	30222 J2/DF
	200	112		7.874	4.409	682	1 140	122	1 900	3 200	14.5	32222 J2/DF
	240	126		9.449	4.961	781	1 160	125	1 500	2 800	26	31322 XJ2/DF
120	180	76	4.724	7.087	2.992	418	830	88	2 000	3 400	6.75	32024 X/DF
	180	96		7.087	3.780	495	1 080	112	2 000	3 400	8.65	33024/DFC250
	215	87		8.465	3.425	583	915	98	1 800	3 000	13	30224 J2/DF
	215	123		8.465	4.843	792	1 400	146	1 800	3 000	18.5	32224 J2/DF
	260	119		10.236	4.685	968	1 400	146	1 600	2 600	29.5	30324 J2/DFC600
	260	136		10.236	5.354	935	1 400	146	1 400	2 400	33.5	31324 XJ2/DF
130	180	64	5.118	7.087	2.520	341	735	76.5	2 000	3 600	4.95	32926/DF
	200	90		7.874	3.543	539	1 080	110	1 800	3 000	10	32026 X/DF
	230	87.5		9.055	3.445	627	980	106	1 700	2 800	14.5	30226 J2/DF
	230	135.5		9.055	5.335	952	1 660	170	1 600	2 800	23	32226 J2/DF
	280	144		11.024	5.669	1 050	1 560	163	1 300	2 400	40	31326 XJ2/DF
140	210	90	5.512	8.268	3.543	561	1 160	116	1 700	2 800	11	32028 X/DF
	250	91.5		9.843	3.602	721	1 140	116	1 500	2 600	18	30228 J2/DFC100
	250	143.5		9.843	5.650	1 100	2 000	200	1 500	2 600	29.5	32228 J2/DF
	300	154		11.811	6.063	1 190	1 800	176	1 200	2 200	52.5	31328 XJ2/DF
150	225	96	5.906	8.858	3.780	644	1 320	132	1 600	2 600	13.5	32030 X/DF
	270	98		10.630	3.858	737	1 120	114	1 400	2 400	22.5	30230/DFC350
	270	154		10.630	6.063	1 250	2 280	224	1 400	2 400	37	32230 J2/DF
	320	164		12.598	6.457	1 340	2 040	200	1 100	2 000	58.5	31330 XJ2/DF
160	240	102	6.299	9.449	4.016	737	1 560	156	1 500	2 400	16	32032 X/DF
	290	104		11.417	4.094	913	1 460	143	1 300	2 200	27.5	30232 J2/DF
	290	168		11.417	6.614	1 510	2 800	265	1 300	2 200	48	32232 J2/DF
170	230	76	6.693	9.055	2.992	484	1 160	110	1 500	2 800	9.2	32934/DFC225
	260	114		10.236	4.488	880	1 830	180	1 400	2 200	22	32034 X/DF
	310	182		12.205	7.165	1 720	3 250	300	1 200	2 000	59	32234 J2/DF

Single row taper roller bearings paired face-to-face

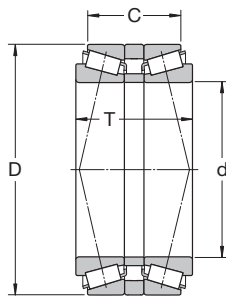
d 180 - 320 mm
d 7.087 - 12.598 in

Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass	Designation
d	D	T	d	D	T	dynamic	static		Refer- ence speed	Limiting speed		
mm			in			kN		kN	r/min	kg	-	
180	250	90	7.087	9.843	3.543	605	1 460	137	1 400	2 600	14	32936/DF
	280	128		11.024	5.039	1 100	2 320	220	1 300	2 000	29.5	32036 X/DF
	320	114		12.598	4.488	1 010	1 630	160	1 200	2 000	42	30236 J2/DFC300
	320	182		12.598	7.165	1 720	3 250	300	1 100	1 900	61	32236 J2/DF
190	260	90	7.480	10.236	3.543	616	1 530	143	1 300	2 400	14.5	32938/DF
	290	128		11.417	5.039	1 120	2 400	224	1 200	2 000	30.5	32038 X/DF
	340	120		13.386	4.724	1 230	2 000	190	1 100	1 800	50	30238 J2/DFC700
200	310	140	7.874	12.205	5.512	1 280	2 750	255	1 100	1 900	39	32040 X/DF
	360	128		14.173	5.039	1 340	2 240	212	1 000	1 700	52	30240 J2/DFC570
	360	208		14.173	8.189	2 090	4 000	360	1 000	1 700	88	32240 J2/DF
220	300	102	8.661	11.811	4.016	842	2 000	183	1 100	2 000	21	32944/DFC300
	340	152		13.386	5.984	1 540	3 350	300	1 000	1 700	51	32044 X/DF
240	360	152	9.449	14.173	5.984	1 570	3 550	315	950	1 600	54.5	32048 X/DF
260	400	174	10.236	15.748	6.850	1 980	4 400	380	850	1 400	79.5	32052 X/DF
280	420	174	11.024	16.535	6.850	2 050	4 750	400	800	1 300	84.5	32056 X/DF
300	420	152	11.811	16.535	5.984	1 790	4 500	375	800	1 400	65.5	32960/DF
320	480	200	12.598	18.898	7.874	2 640	6 200	510	700	1 100	125	32064 X/DF

Single row taper roller bearings paired back-to-back

d 40 - 200 mm

d 1.575 - 7.874 in



Principal dimensions				Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass	Designation				
d	D	T	C	dynamic	static		Refer-ence speed	Limiting speed						
mm			in			kN		r/min	kg	–				
40	90	72	61.5	1.575	3.543	2.835	2.421	170	190	21.6	5 300	8 000	1.9	*30308T72 J2/QDBC220
75	130	70	59.5	2.953	5.118	2.756	2.343	238	355	41.5	3 000	5 000	3.25	30215T70 J2/DBC270
	130	80	67.5		5.118	3.150	2.657	275	425	49	3 000	5 000	6.8	32215T80 J2/QDB
80	140	78	63.5	3.150	5.512	3.071	2.500	319	490	57	2 800	4 500	4.45	32216T78 J2/QDBC110
85	130	66	52	3.346	5.118	2.598	2.047	238	450	51	2 800	4 800	2.7	32017T66 X/QDB/C280
	130	70	56		5.118	2.756	2.205	308	620	69.5	2 800	4 800	3.5	33017T70/QDB
	150	71	58.5		5.906	2.795	2.303	303	440	51	2 600	4 300	4.1	30217T71 J2/QDB
90	190	103	70	3.543	7.480	4.055	2.756	457	630	73.5	1 900	3 400	12.5	31318T103 J2/DB31
100	180	108	88	3.937	7.087	4.252	3.465	539	880	96.5	2 200	3 600	10.5	32220T108 J2/DB
	180	140	120		7.087	5.512	4.724	539	880	96.5	2 200	3 600	12.5	32220T140 J2/DB11
110	170	84	66	4.331	6.693	3.307	2.598	402	780	85	2 200	3 600	6.5	32022T84 X/QDBC200
120	180	84	66	4.724	7.087	3.307	2.598	418	830	88	2 000	3 400	7	32024T84 X/QDBC200
	215	146	123		8.465	5.748	4.843	792	1 400	146	1 800	3 000	21	32224T146 J2/DB31C210
	260	146	134		10.236	5.748	5.276	935	1 400	146	1 400	2 400	35	31324T146 XJ2/DB
130	230	97.5	78	5.118	9.055	3.839	3.071	627	980	106	1 700	2 800	15	30226T97.5 J2/DB
	280	142	112.5		11.024	5.591	4.429	1 080	1 600	166	1 400	2 400	36.5	30326T142 J2/DB11C150
140	210	130	108	5.512	8.268	5.118	4.252	561	1 160	116	1 700	2 800	12.7	32028T130 X/QDB
	250	106	86.5		9.843	4.173	3.406	721	1 140	116	1 500	2 600	19.5	30228T106 J2/DB
	250	158	130.5		9.843	6.220	5.138	1 100	2 000	200	1 500	2 600	31	32228T158 J2/DB
150	270	168	134	5.906	10.630	6.614	5.276	1 250	2 280	224	1 400	2 400	38	32230T168 J2/DB
	270	248	214		10.630	9.764	8.425	1 250	2 280	224	1 400	2 400	39.5	32230T248 J2/DB31
	320	179	115		12.598	7.047	4.528	1 340	2 040	200	1 100	2 000	58.5	31330T179 XJ2/DB
160	290	179	145	6.299	11.417	7.047	5.709	1 510	2 800	265	1 300	2 200	52.5	32232T179 J2/DB32C230
170	260	162	134	6.693	10.236	6.378	5.276	880	1 830	180	1 400	2 200	30.5	32034T162 X/DB31
180	250	135	83	7.087	9.843	5.315	3.268	605	1 460	137	1 400	2 600	14.5	32936T135/DBC260
	280	150	118		11.024	5.906	4.646	1 100	2 320	220	1 300	2 200	29.5	32036T150 X/DB
	280	150	118		11.024	5.906	4.646	1 100	2 320	220	1 300	2 200	29.5	32036T150 XDB11C150
	320	196	156		12.598	7.717	6.142	1 720	3 250	300	1 100	1 900	61.5	32236T196 J2/DB32
190	260	102	80	7.480	10.236	4.016	3.150	616	1 530	143	1 300	2 400	15	32938T102/DB31
	260	122	100		10.236	4.803	3.937	616	1 530	143	1 300	2 400	15.5	32938T122/DBC
	290	146	114		11.417	5.748	4.488	1 120	2 400	224	1 200	2 000	31.5	32038T146 X/DB42C220
	290	146	114		11.417	5.748	4.488	1 120	2 400	224	1 200	2 000	31.5	32038T146 X/DBC220
	290	183	151		11.417	7.205	5.945	1 120	2 400	224	1 200	2 000	32.5	32038T183 X/DB31C330
200	310	154.5	120.5	7.874	12.205	6.083	4.744	1280	2750	255	1 100	1 900	39.5	32040T154.5 X/DB11C170

* SKF Explorer bearing

Single row taper roller bearings paired back-to-back

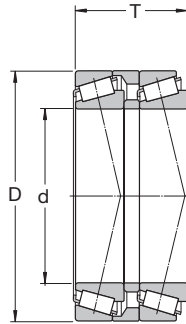
d 220 - 260 mm
d 8.661 - 10.236 in

Principal dimensions				Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass	Designation				
d	D	T	C	dynamic	static		Refer- ence speed	Limiting speed						
mm			in	C	C_0	kN	r/min	kg	–					
220	340	165	127	8.661	13.386	6.496	5.000	1 540	3 550	300	1 000	1 700	52	32044T165 X/DB11C170
	340	165	127		13.386	6.496	5.000	1 540	3 550	300	1 000	1 700	52	32044T165 X/DB42C220
	340	165	127		13.386	6.496	5.000	1 540	3 550	300	1 000	1 700	52	32044T165 X/DBC340
	340	168	130		13.386	6.614	5.118	1 540	3 550	300	1 000	1 700	52	32044T168 X/DB
240	360	172	134	9.449	14.173	6.772	5.276	1 570	3 550	315	950	1 600	56	32048T172 X/DB
	440	284	230		17.323	11.181	9.055	3 300	6 550	550	800	1 400	180	32248T284 J3/DB
260	400	189	145	10.236	15.748	7.441	5.709	1 980	4 400	380	850	1 400	80.5	32052T189 X/DBC280
	400	194	150		15.748	7.638	5.906	1 980	4 400	380	850	1 400	80.5	32052T194 X/DB

Single row taper roller bearings paired in tandem

d 55 - 80 mm

d 2.165 - 3.150 in



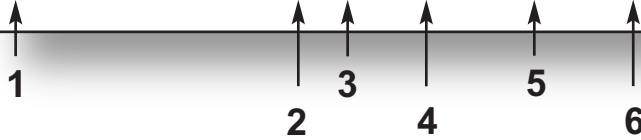
Principal dimensions						Basic load ratings		Fatigue load limit P_u	Speed ratings		Mass	Designation
d	D	T	d	D	T	dynamic	static		Refer- ence speed	Limiting speed		
mm			in			kN		kN	r/min	kg	—	
55	115	73	2.165	4.528	2.874	250	325	39	3 400	5 600	3.5	* T7FC 055T73/QCL7CDTC10
60	125	80	2.362	4.921	3.150	305	405	49	3 000	5 300	4.05	* T7FC 060T80/QCL7CDTC10
70	140	83	2.756	5.512	3.268	355	480	55	2 800	4 500	11	* T7FC 070T83/QCL7CDTC10
80	160	98	3.150	6.299	3.858	450	630	71	2 400	4 000	16.5	* T7FC 080T98/QCL7CDTC20

* SKF Explorer bearing



Spherical Roller Bearings

ECB 22240 CCK JA / C3 W33



1. Prefixes		4. Cage Designation/Seals		W22	
ECB	Air melt carburized steel, inner ring only	2CS	Nitrile rubber seals on both sides, bearing filled with medium temp. extreme pressure grease	W26	Six lubrication holes in inner ring
BS2	Double row spherical roller bearing with special dimensions for seals	2CS2*	Fluoroelastomer rubber seals on both sides, filled with hi-temp grease*	W31	Bearing inspected to special quality requirements
2. Internal Design		2CS5	Hydrogenated Acrylonitrile (HNBR) seals on both sides filled with 70-100% of Polyurea based hi-temperature grease	W33	Groove and 3 oil holes in outer ring
CA	One-piece machined brass cage of the double-pronged type, retaining flanges on the inner ring and guide ring centred on the inner ring.	F	Machined steel cage, ring guided	W33X	Lubrication groove and six holes in outer ring
CAC	Same as CA but improved raceway geometry	J	Pressed steel cage	W4	Hi point of eccentricity marked on inner ring or sleeve
CAFA	Same as CA but with a machined steel cage.	JA	Hardened steel cage, ring guided	W502	Combination of W22 and W33
CC	Two, window-type steel cages, flangeless inner ring and guide ring centred on the inner ring	MA	Machined brass cage outer ring guided	W509	W26 + W31 + W33
E	d < 65mm, Two window-type steel cages, flangeless inner ring and guide centred on the inner ring. When d > 65 mm as above but guide ring centred on the cages	M2	Machined brass roller guided cage no guide ring (Vibrating screens)	W513	W26 + W33
ECA	One-piece machined brass cage of the double-pronged type, retaining flanges on the inner ring, guide ring centred on the inner ring and reinforced roller complement	Y	Pressed brass cage, ring guided	HA1	Case hardened outer and inner rings
ECAC	As ECA but with improved raceway geometry	5. Clearance/Tolerance		HA3	Case hardened inner rings (As ECB prefix)
ECAF	As ECA but with a machined steel cage	C1	Clearance < C2	VA405	Vibrating screen specification
C2	Clearance < Normal	CN	Normal (no symbol)	VA406	As VA405 with PTFE coated bore
C3	Clearance > Normal	C4	Clearance > C3	VE552(E)	Three equally spaced threaded holes in face of outer ring for hoisting tackle, (E) indicates appropriate lifting eyes supplied
C08	Reduce runout on both inner and outer rings to ISO P5 (RBEC 5)	C08	Reduce runout on both inner and outer rings to ISO P5 (RBEC 5)	VE553(E)	As VE552 but on both side faces.
VQ 424	Closer tolerances than C08	VQ 424	Closer tolerances than C08	VA751 / VA759	Both printing press/coater specifications
3. Bore types		6. Features		VT143	Extreme pressure grease
-	Cylindrical bore no symbol	W	No relubrication feature on E style bearings	W64	Solid oil filling
K	1:12 tapered bore			W77	Plugged W33 holes
K30	1:30 tapered bore				

* See warning page 163

Spherical roller bearings

Technical Features

Boundary Dimensions in accordance with ISO 15:1998

Tolerances SKF spherical roller bearings are manufactured as standard to normal tolerances. SKF Explorer bearings up to 315 mm bore diameter are produced to higher precision than the ISO normal tolerances. The width tolerance is considerably tighter*. The running accuracy is to tolerance class P5 as standard.
For larger bearings P5 tolerances are also available with the suffix C08 or closer tolerances are available with suffix VQ424.
Vibratory bearings are manufactured to; bore P5 and O/D P6.

Heat Stabilization 392 °F (200 °C)

Misalignment

series 21300 - 1°	series 22200 - 1.5°
series 22300 - 2°	series 23000 - 1.5°
series 23100 - 1.5°	series 23200 - 2.5°
series 23900 - 1.5°	series 24000 - 2°
series 24100 - 2.5°	

Cage Material

Standard	Steel
Optional	Machined brass (CA) larger bearings only

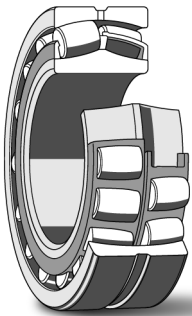
Axial Load - max Sleeve mounted For adapter mounts $F_{ap} = 3 \times B \times d$
Where B = bearing width (mm) and d = bearing bore (mm)
Fap = axial load in Newtons
For cylindrical mounts - contact SKF engineering

Seals

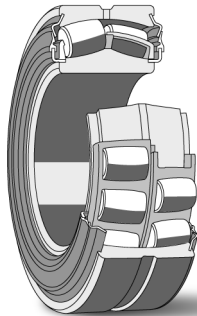
- 2CS - 2 Nitrile seals with medium temperature grease
- 2CS2 - 2 Fluoroelastomer rubber seals with high temperature bearings grease
- 2CS5 - 2 Hydrogenated acrylonitrile butadiene rubber seals with hi-temp grease

width may differ from standard bearings

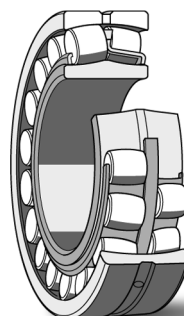
* See width tolerances on page 704 of the SKF 6000 catalogue



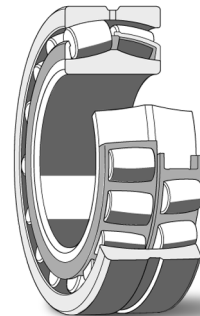
Standard
Spherical Roller Bearing
(data tables on page 166)



Sealed
Spherical Roller Bearing
(data tables on page 174)



VA405 Design
Shaker Screen
Spherical Roller Bearing
(data tables on page 176)



Printing Press
Spherical Roller Bearing
(data tables on page 179)

Warning:

SKF sealed roller bearings that are fitted with fluoro rubber (elastomer) seals (2CS2) can cause serious bodily injury if used improperly. The seals are suitable for operation up to 392°F (200°C). A fluoroelastomer base will resist ignition under any conditions outside special furnace condition, but if exposure to heat (due to fire or any other conditions) is extreme, e.g. over 572°F (300°C) for more than a brief time, degradation will occur. Fluoro rubber emits dangerous fumes at temperatures of 572°F (300°C) and above. This may occur if the seals are subjected to extreme heat during dismounting, for example. Once it

has been overheated, fluoro rubber will remain dangerous to handle even when it has cooled down. This degraded product is a major health and safety danger due to the evolution of hydrofluoric acid (HF). It is necessary to handle overheated fluoro rubber seals carefully; always observe safety instructions and wear goggles and protective gloves. Under no circumstances should material (hot or cold) be allowed to contact skin. If hands or eyes have come into contact with the material or fumes, they should be washed or rinsed in plenty of water. A doctor should always be consulted especially if the fumes have been inhaled.

Decontamination can be carried out using limewater (calcium hydroxide solution); use of P.V.C. gloves is essential. After neutralization, the degraded seal can be disposed of in a similar manner to an un-degraded one.

The user is responsible for the correct handling of the seals during bearing life, and for the proper disposal of used seals. Seals of fluoro rubber and bearings incorporating them are not dangerous to handle provided they have never been overheated.

Mounting Information

Please go to www.skf.com/mount

Radial internal clearance of spherical roller bearings with cylindrical bore																							
Bore diameter d				Radial internal clearance																			
				C2		Normal				C3				C4				C5					
over	incl.	over	incl.	min	max	min	max	min	max	min	max	min	max	min	max	min	max						
mm	in	mm	in	µm	in	µm	in	µm	in	µm	in	µm	in	µm	in	µm	in						
18	24	0.7087	0.9449	10	20	0.0004	0.0008	20	35	0.0008	0.0014	35	45	0.0014	0.0018	45	60	0.0018	0.0024	60	75	0.0024	0.0030
24	30	0.9449	1.1811	15	25	0.0006	0.0010	25	40	0.0010	0.0016	40	55	0.0016	0.0022	55	75	0.0022	0.0030	75	95	0.0030	0.0037
30	40	1.1811	1.5748	15	30	0.0006	0.0012	30	45	0.0012	0.0018	45	60	0.0018	0.0024	60	80	0.0024	0.0031	80	100	0.0031	0.0039
40	50	1.5748	1.9685	20	35	0.0008	0.0014	35	55	0.0014	0.0022	55	75	0.0022	0.0030	75	100	0.0030	0.0039	100	125	0.0039	0.0049
50	65	1.9685	2.5591	20	40	0.0008	0.0016	40	65	0.0016	0.0026	65	90	0.0026	0.0035	90	120	0.0035	0.0047	120	150	0.0047	0.0059
65	80	2.5591	3.1496	30	50	0.0012	0.0020	50	80	0.0020	0.0031	80	110	0.0031	0.0043	110	145	0.0043	0.0057	145	180	0.0057	0.0071
80	100	3.1496	3.9370	35	60	0.0014	0.0024	60	100	0.0024	0.0039	100	135	0.0039	0.0053	135	180	0.0053	0.0071	180	225	0.0071	0.0089
100	120	3.9370	4.7244	40	75	0.0016	0.0030	75	120	0.0030	0.0047	120	160	0.0047	0.0063	160	210	0.0063	0.0083	210	260	0.0083	0.0102
120	140	4.7244	5.5118	50	95	0.0020	0.0037	95	145	0.0037	0.0057	145	190	0.0057	0.0075	190	240	0.0075	0.0094	240	300	0.0094	0.0118
140	160	5.5118	6.2992	60	110	0.0024	0.0043	110	170	0.0043	0.0067	170	220	0.0067	0.0087	220	280	0.0087	0.0110	280	350	0.0110	0.0138
160	180	6.2992	7.0866	65	120	0.0026	0.0047	120	180	0.0047	0.0071	180	240	0.0071	0.0094	240	310	0.0094	0.0122	310	390	0.0122	0.0154
180	200	7.0866	7.8740	70	130	0.0028	0.0051	130	200	0.0051	0.0079	200	260	0.0079	0.0102	260	340	0.0102	0.0134	340	430	0.0134	0.0169
200	225	7.8740	8.8583	80	140	0.0031	0.0055	140	220	0.0055	0.0087	220	290	0.0087	0.0114	290	380	0.0114	0.0150	380	470	0.0150	0.0185
225	250	8.8583	9.8425	90	150	0.0035	0.0059	150	240	0.0059	0.0094	240	320	0.0094	0.0126	320	420	0.0126	0.0165	420	520	0.0165	0.0205
250	280	9.8425	11.0236	100	170	0.0039	0.0067	170	260	0.0067	0.0102	260	350	0.0102	0.0138	350	460	0.0138	0.0181	460	570	0.0181	0.0224
280	315	11.0236	12.4016	110	190	0.0043	0.0075	190	280	0.0075	0.0110	280	370	0.0110	0.0146	370	500	0.0146	0.0197	500	630	0.0197	0.0248
315	355	12.4016	13.9764	120	200	0.0047	0.0079	200	310	0.0079	0.0122	310	410	0.0122	0.0161	410	550	0.0161	0.0217	550	690	0.0217	0.0272
355	400	13.9764	15.7480	130	220	0.0051	0.0087	220	340	0.0087	0.0134	340	450	0.0134	0.0177	450	600	0.0177	0.0236	600	750	0.0236	0.0295
400	450	15.7480	17.7165	140	240	0.0055	0.0094	240	370	0.0094	0.0146	370	500	0.0146	0.0197	500	660	0.0197	0.0260	660	820	0.0260	0.0323
450	500	17.7165	19.6850	140	260	0.0055	0.0102	260	410	0.0102	0.0161	410	550	0.0161	0.0217	550	720	0.0217	0.0283	720	900	0.0283	0.0354
500	560	19.6850	22.0472	150	280	0.0059	0.0110	280	440	0.0110	0.0173	440	600	0.0173	0.0236	600	780	0.0236	0.0307	780	1000	0.0307	0.0394
560	630	22.0472	24.8031	170	310	0.0067	0.0122	310	480	0.0122	0.0189	480	650	0.0189	0.0256	650	850	0.0256	0.0335	850	1100	0.0335	0.0433
630	710	24.8031	27.9528	190	350	0.0075	0.0138	350	530	0.0138	0.0209	530	700	0.0209	0.0276	700	920	0.0276	0.0362	920	1190	0.0362	0.0469
710	800	27.9528	31.4961	210	390	0.0083	0.0154	390	580	0.0154	0.0228	580	770	0.0228	0.0303	770	1010	0.0303	0.0398	1010	1300	0.0398	0.0512
800	900	31.4961	35.4331	230	430	0.0091	0.0169	430	650	0.0169	0.0256	650	860	0.0256	0.0339	860	1120	0.0339	0.0441	1120	1440	0.0441	0.0567
900	1000	35.4331	39.3701	260	480	0.0102	0.0189	480	710	0.0189	0.0280	710	930	0.0280	0.0366	930	1220	0.0366	0.0480	1220	1570	0.0480	0.0618
1000	1120	39.3701	44.0945	290	530	0.0114	0.0209	530	780	0.0209	0.0307	780	1020	0.0307	0.0402	1020	1330	0.0402	0.0524	1330	1720	0.0524	0.0677
1120	1250	44.0945	49.2126	320	580	0.0126	0.0228	580	860	0.0228	0.0339	860	1120	0.0339	0.0441	1120	1460	0.0441	0.0575	1460	1870	0.0575	0.0736

Spherical roller bearings

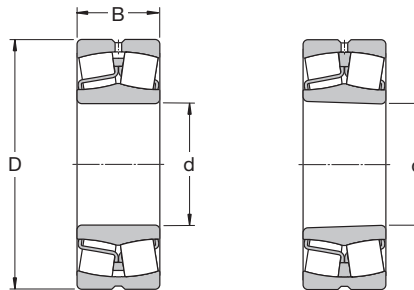
Radial internal clearance of spherical roller bearings with tapered bore																							
Bore diameter d				Radial internal clearance																			
				C2				Normal				C3				C4				C5			
over	incl.	over	incl.	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max				
mm	in	mm	in	μm	in	μm	in	μm	in	μm	in	μm	in	μm	in	μm	in	μm	in				
24	30	0.9449	1.1811	20	30	0.0008	0.0012	30	40	0.0012	0.0016	40	55	0.0016	0.0022	55	75	0.0022	0.0030	-	-		
30	40	1.1811	1.5748	25	35	0.0010	0.0014	35	50	0.0014	0.0020	50	65	0.0020	0.0026	65	85	0.0026	0.0033	85	105	0.0033	0.0041
40	50	1.5748	1.9685	30	45	0.0012	0.0018	45	60	0.0018	0.0024	60	80	0.0024	0.0031	80	100	0.0031	0.0039	100	130	0.0039	0.0051
50	65	1.9685	2.5591	40	55	0.0016	0.0022	55	75	0.0022	0.0030	75	95	0.0030	0.0037	95	120	0.0037	0.0047	120	160	0.0047	0.0063
65	80	2.5591	3.1496	50	70	0.0020	0.0028	70	95	0.0028	0.0037	95	120	0.0037	0.0047	120	150	0.0047	0.0059	150	200	0.0059	0.0079
80	100	3.1496	3.9370	55	80	0.0022	0.0031	80	110	0.0031	0.0043	110	140	0.0043	0.0055	140	180	0.0055	0.0071	180	230	0.0071	0.0091
100	120	3.9370	4.7244	65	100	0.0026	0.0039	100	135	0.0039	0.0053	135	170	0.0053	0.0067	170	220	0.0067	0.0087	220	280	0.0087	0.0110
120	140	4.7244	5.5118	80	120	0.0031	0.0047	120	160	0.0047	0.0063	160	200	0.0063	0.0079	200	260	0.0079	0.0102	260	330	0.0102	0.0130
140	160	5.5118	6.2992	90	130	0.0035	0.0051	130	180	0.0051	0.0071	180	230	0.0071	0.0091	230	300	0.0091	0.0118	300	380	0.0118	0.0150
160	180	6.2992	7.0866	100	140	0.0039	0.0055	140	200	0.0055	0.0079	200	260	0.0079	0.0102	260	340	0.0102	0.0134	340	430	0.0134	0.0169
180	200	7.0866	7.8740	110	160	0.0043	0.0063	160	220	0.0063	0.0087	220	290	0.0087	0.0114	290	370	0.0114	0.0146	370	470	0.0146	0.0185
200	225	7.8740	8.8583	120	180	0.0047	0.0071	180	250	0.0071	0.0098	250	320	0.0098	0.0126	320	410	0.0126	0.0161	410	520	0.0161	0.0205
225	250	8.8583	9.8425	140	200	0.0055	0.0079	200	270	0.0079	0.0106	270	350	0.0106	0.0138	350	450	0.0138	0.0177	450	570	0.0177	0.0224
250	280	9.8425	11.0236	150	220	0.0059	0.0087	220	300	0.0087	0.0118	300	390	0.0118	0.0154	390	490	0.0154	0.0193	490	620	0.0193	0.0244
280	315	11.0236	12.4016	170	240	0.0067	0.0094	240	330	0.0094	0.0130	330	430	0.0130	0.0169	430	540	0.0169	0.0213	540	680	0.0213	0.0268
315	355	12.4016	13.9764	190	270	0.0075	0.0106	270	360	0.0106	0.0142	360	470	0.0142	0.0185	470	590	0.0185	0.0232	590	740	0.0232	0.0291
355	400	13.9764	15.7480	210	300	0.0083	0.0118	300	400	0.0118	0.0157	400	520	0.0157	0.0205	520	650	0.0205	0.0256	650	820	0.0256	0.0323
400	450	15.7480	17.7165	230	330	0.0091	0.0130	330	440	0.0130	0.0173	440	570	0.0173	0.0224	570	720	0.0224	0.0283	720	910	0.0283	0.0358
450	500	17.7165	19.6850	260	370	0.0102	0.0146	370	490	0.0146	0.0193	490	630	0.0193	0.0248	630	790	0.0248	0.0311	790	1000	0.0311	0.0394
500	560	19.6850	22.0472	290	410	0.0114	0.0161	410	540	0.0161	0.0213	540	680	0.0213	0.0268	680	870	0.0268	0.0343	870	1100	0.0343	0.0433
560	630	22.0472	24.8031	320	460	0.0126	0.0181	460	600	0.0181	0.0236	600	760	0.0236	0.0299	760	980	0.0299	0.0386	980	1230	0.0386	0.0484
630	710	24.8031	27.9528	350	510	0.0138	0.0201	510	670	0.0201	0.0264	670	850	0.0264	0.0335	850	1090	0.0335	0.0429	1090	1360	0.0429	0.0535
710	800	27.9528	31.4961	390	570	0.0154	0.0224	570	750	0.0224	0.0295	750	960	0.0295	0.0378	960	1220	0.0378	0.0480	1220	1500	0.0480	0.0591
800	900	31.4961	35.4331	440	640	0.0173	0.0252	640	840	0.0252	0.0331	840	1070	0.0331	0.0421	1070	1370	0.0421	0.0539	1370	1690	0.0539	0.0665
900	1000	35.4331	39.3701	490	710	0.0193	0.0280	710	930	0.0280	0.0366	930	1190	0.0366	0.0469	1190	1520	0.0469	0.0598	1520	1860	0.0598	0.0732
1000	1120	39.3701	44.0945	530	770	0.0209	0.0303	770	1030	0.0303	0.0406	1030	1300	0.0406	0.0512	1300	1670	0.0512	0.0657	1670	2050	0.0657	0.0807
1120	1250	44.0945	49.2126	570	830	0.0224	0.0327	830	1120	0.0327	0.0441	1120	1420	0.0441	0.0559	1420	1830	0.0559	0.0720	1830	2250	0.0720	0.0886



Spherical roller bearings

d 20 - 90 mm

d 0.787 - 3.543 in



Principal dimensions						Basic load ratings		Fatigue load limit P _U	Speed ratings		Mass kg	Designations	
d	D	B	d	D	B	dynamic C	static C ₀		Refer- ence speed	Limiting speed		Bearing with cylindrical bore	tapered bore
mm			in			kN		kN	r/min		—		
20	52	18	0.787	2.047	0.709	49	44	4.75	13 000	17 000	0.28	* 22205/20 E	—
25	52	18	0.984	2.047	0.709	49	44	4.75	13 000	17 000	0.26	* 22205 E	* 22205 EK
	62	17		2.441	0.669	41.4	41.5	4.55	8 500	12 000	0.28	21305 CC	—
30	62	20	1.181	2.441	0.787	64	60	6.4	10 000	14 000	0.29	* 22206 E	* 22206 EK
	72	19		2.835	0.748	55.2	61	6.8	7 500	10 000	0.41	21306 CC	21306 CCK
35	72	23	1.378	2.835	0.906	86.5	85	9.3	9 000	12 000	0.45	* 22207 E	* 22207 EK
	80	21		3.150	0.827	65.6	72	8.15	6 700	9 500	0.55	21307 CC	21307 CCK
40	80	23	1.575	3.150	0.906	96.5	90	9.8	8 000	11 000	0.53	* 22208 E	* 22208 EK
	90	23		3.543	0.906	104	108	11.8	7 000	9 500	0.75	* 21308 E	* 21308 EK
	90	33		3.543	1.299	150	140	15	6 000	8 000	1.05	* 22308 E	* 22308 EK
45	85	23	1.772	3.346	0.906	102	98	10.8	7 500	10 000	0.58	* 22209 E	* 22209 EK
	100	25		3.937	0.984	125	127	13.7	6 300	8 500	0.99	* 21309 E	* 21309 EK
	100	36		3.937	1.417	183	183	19.6	5 300	7 000	1.4	* 22309 E	* 22309 EK
50	90	23	1.969	3.543	0.906	104	108	11.8	7 000	9 500	0.63	* 22210 E	* 22210 EK
	110	27		4.331	1.063	156	166	18.6	5 600	7 500	1.35	* 21310 E	* 21310 EK
	110	40		4.331	1.575	220	224	24	4 800	6 300	1.9	* 22310 E	* 22310 EK
55	100	25	2.165	3.937	0.984	125	127	13.7	6 300	8 500	0.84	* 22211 E	* 22211 EK
	120	29		4.724	1.142	156	166	18.6	5 600	7 500	1.7	* 21311 E	* 21311 EK
	120	43		4.724	1.693	270	280	30	4 300	5 600	2.45	* 22311 E	* 22311 EK
60	110	28	2.362	4.331	1.102	156	166	18.6	5 600	7 500	1.15	* 22212 E	* 22212 EK
	130	31		5.118	1.220	212	240	26.5	4 800	6 300	2.1	* 21312 E	* 21312 EK
	130	46		5.118	1.811	310	335	36.5	4 000	5 300	3.1	* 22312 E	* 22312 EK
65	100	35	2.559	3.394	1.378	132	173	20.4	4 300	6 300	0.95	* 24013 CC/W33	* 24013 CCK30/W33
	120	31		4.724	1.220	193	216	24	5 000	7 000	1.55	* 22213 E	* 22213 EK
	140	33		5.512	1.299	236	270	29	4 300	6 000	2.55	* 21313 E	* 21313 EK
	140	48		5.512	1.890	340	360	38	3 800	5 000	3.75	* 22313 E	* 22313 EK
70	125	31	2.756	4.921	1.220	208	228	25.5	5 000	6 700	1.55	* 22214 E	* 22214 EK
	150	35		5.906	1.378	285	325	34.5	4 000	5 600	3.1	* 21314 E	* 21314 EK
	150	51		5.906	2.008	400	430	45	3 400	4 500	4.55	* 22314 E	* 22314 EK
75	115	40	2.953	4.528	1.575	173	232	28.5	3 800	5 300	1.55	* 24015 CC/W33	* 24015 CCK30/W33
	130	31		5.118	1.220	212	240	26.5	4 800	6 300	1.7	* 22215 E	* 22215 EK
	160	37		6.299	1.457	285	325	34.5	4 000	5 600	3.75	* 21315 E	* 21315 EK
	160	55		6.299	2.165	440	475	48	3 200	4 300	5.55	* 22315 E	* 22315 EK
80	140	33	3.150	5.512	1.299	236	270	29	4 300	6 000	2.1	* 22216 E	* 22216 EK
	170	39		6.693	1.535	325	375	39	3 800	5 300	4.45	* 21316 E	* 21316 EK
	170	58		6.693	2.283	490	540	54	3 000	4 000	6.6	* 22316 E	* 22316 EK
85	150	36	3.346	5.906	1.417	285	325	34.5	4 000	5 600	2.65	* 22217 E	* 22217 EK
	180	41		7.087	1.614	325	375	39	3 800	5 300	5.2	* 21317 E	* 21317 EK
	180	60		7.087	2.362	550	620	61	2 800	3 800	7.65	* 22317 E	* 22317 EK
90	160	40	3.543	6.299	1.575	325	375	39	3 800	5 300	3.4	* 22218 E	* 22218 EK
	160	52.4		6.299	2.063	355	440	48	2 800	3 800	4.65	* 23218 CC/W33	* 23218 CCK/W33
	190	43		7.480	1.693	380	450	46.5	3 600	4 800	6.1	* 21318 E	* 21318 EK
	190	64		7.480	2.520	610	695	67	2 600	3 600	9.05	* 22318 E	* 22318 EK

* SKF Explorer bearing

Spherical roller bearings

d 95 - 140 mm

d 3.740 - 5.512 in

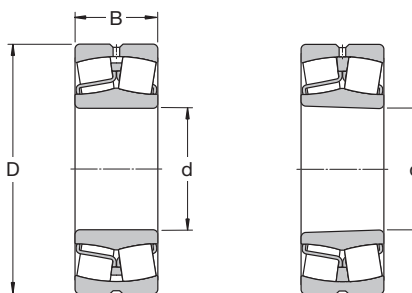
Principal dimensions						Basic load ratings		Fatigue load limit P _U	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic C	static C ₀		Refer- ence speed	Limiting speed		Bearing with cylindrical bore	tapered bore
mm			in			kN		kN	r/min	kg	—		
95	170	43	3.740	6.693	1.693	380	450	46.5	3 600	4 800	4.15	* 22219 E	* 22219 EK
	200	45		7.874	1.772	425	490	49	3 400	4 500	7.05	* 21319 E	* 21319 EK
	200	67		7.874	2.638	670	765	73.5	2 600	3 400	10.5	* 22319 E	* 22319 EK
100	150	50	3.937	5.906	1.969	285	415	45.5	2 800	4 000	3.15	* 24020 CC/W33	* 24020 CCK30/W33
	165	52		6.496	2.047	365	490	53	3 000	4 000	4.55	* 23120 CC/W33	* 23120 CCK/W33
	165	65		6.496	2.559	455	640	68	2 400	3 200	5.65	* 24120 CC/W33	* 24120 CCK30/W33
	180	46		7.087	1.811	425	490	49	3 400	4 500	4.9	* 22220 E	* 22220 EK
	180	60.3		7.087	2.374	475	600	63	2 400	3 400	6.85	* 23220 CC/W33	* 23220 CCK/W33
	215	47		8.465	1.850	425	490	49	3 400	4 500	8.6	* 21320 E	* 21320 EK
	215	73		8.465	2.874	815	950	88	2 400	3 000	13.5	* 22320 E	* 22320 EK
110	170	45	4.331	6.693	1.772	310	440	46.5	3 400	4 300	3.8	* 23022 CC/W33	* 23022 CCK/W33
	170	60		6.693	2.362	415	620	67	2 400	3 600	5	* 24022 CC/W33	* 24022 CCK30/W33
	180	56		7.087	2.205	430	585	61	2 800	3 600	5.75	* 23122 CC/W33	* 23122 CCK/W33
	180	69	7.087	2.717	520	750	78	2 200	3 000	7.1	* 24122 CC/W33	* 24122 CCK30/W33	
	200	53		7.874	2.087	560	640	63	3 000	4 000	7	* 22222 E	* 22222 EK
	200	69.8		7.874	2.748	600	765	76.5	2 200	3 200	9.85	* 23222 CC/W33	* 23222 CCK/W33
	240	80		9.449	3.150	950	1120	100	2 000	2 800	18.4	* 22322 E	* 22322 EK
	180	46	4.724	7.087	1.811	355	510	53	3 200	4 000	4.2	* 23024 CC/W33	* 23024 CCK/W33
	180	60		7.087	2.362	430	670	68	2 400	3 400	5.45	* 24024 CC/W33	* 24024 CCK30/W33
	200	62		7.874	2.441	510	695	71	2 600	3 400	8	* 23124 CC/W33	* 23124 CCK/W33
200	80	7.874		3.150	655	950	95	1 900	2 600	10.3	* 24124 CC/W33	* 24124 CCK30/W33	
215	58		8.465	2.283	630	765	73.5	2 800	3 800	8.7	* 22224 E	* 22224 EK	
215	76		8.465	2.992	695	930	93	2 000	2 800	12	* 23224 CC/W33	* 23224 CCK/W33	
260	86		10.236	3.386	965	1120	100	2 000	2 600	23	* 22324 CC/W33	* 22324 CCK/W33	
130	200	52	5.118	7.874	2.047	430	610	62	2 800	3 600	6	* 23026 CC/W33	* 23026 CCK/W33
	200	69		7.874	2.717	540	815	81.5	2 000	3 000	8.05	* 24026 CC/W33	* 24026 CCK30/W33
	210	64		8.268	2.520	560	780	78	2 400	3 200	8.8	* 23126 CC/W33	* 23126 CCK/W33
	210	80		8.268	3.150	680	1000	100	1 800	2 400	11	* 24126 CC/W33	* 24126 CCK30/W33
	230	64		9.055	2.520	735	930	88	2 600	3 600	11	* 22226 E	* 22226 EK
	230	80		9.055	3.150	780	1060	104	1 900	2 600	14.5	* 23226 CC/W33	* 23226 CCK/W33
	280	93		11.024	3.661	1 120	1 320	114	1 800	2 400	29	* 22326 CC/W33	* 22326 CCK/W33
140	210	53	5.512	8.268	2.087	465	680	68	2 600	3 400	6.55	* 23028 CC/W33	* 23028 CCK/W33
	210	69		8.268	2.717	570	900	88	2 000	2 800	8.55	* 24028 CC/W33	* 24028 CCK30/W33
	225	68		8.858	2.677	630	900	88	2 200	2 800	10.5	* 23128 CC/W33	* 23128 CCK/W33
	225	85		8.858	3.346	765	1 160	112	1 700	2 400	13.5	* 24128 CC/W33	* 24128 CCK30/W33
	250	68		9.843	2.677	710	900	86.5	2 400	3 200	14	* 22228 CC/W33	* 22228 CCK/W33
	250	88		9.843	3.465	915	1 250	120	1 700	2 400	19	* 23228 CC/W33	* 23228 CCK/W33
	300	102		11.811	4.016	1 290	1 560	132	1 700	2 200	36.5	* 22328 CC/W33	* 22328 CCK/W33

* SKF Explorer bearing

Spherical roller bearings

d 150 - 200 mm

d 5.906 - 7.874 in



Principal dimensions						Basic load ratings		Fatigue load limit P _U	Speed ratings		Mass kg	Designations		
d	D	B	d	D	B	dynamic C	static C ₀		Refer- ence speed	Limiting speed		Bearing with cylindrical bore	tapered bore	
mm			in			kN		kN	r/min		—			
150	225	56	5.906	8.858	2.205	510	750	73.5	2 400	3 200	7.95	*23030 CC/W33	*23030 CCK/W33	
	225	75		8.858	2.953	655	1 040	100	1 800	2 600	10.5	*24030 CC/W33	*24030 CCK30/W33	
	250	80		9.843	3.150	830	1 200	114	2 000	2 600	16	*23130 CC/W33	*23130 CCK/W33	
	250	100		9.843	3.937	1 020	1 530	146	1 500	2 200	20	*24130 CC/W33	*24130 CCK30/W33	
	270	73		10.630	2.874	850	1 080	102	2 200	3 000	18	*22230 CC/W33	*22230 CCK/W33	
	270	96		10.630	3.780	1 080	1 460	137	1 600	2 200	24.5	*23230 CC/W33	*23230 CCK/W33	
	320	108		12.598	4.252	1 460	1 760	146	1 600	2 000	43.5	*22330 CC/W33	*22330 CCK/W33	
	160	240	60	6.299	9.449	2.362	585	880	83	2 400	3 000	9.7	*23032 CC/W33	*23032 CCK/W33
		240	80		9.449	3.150	750	1 200	114	1 700	2 400	13	*24032 CC/W33	*24032 CCK30/W33
		270	86		10.630	3.386	980	1 370	129	1 900	2 400	20.5	*23132 CC/W33	*23132 CCK/W33
270		109	10.630		4.291	1 180	1 760	163	1 400	1 900	25	*24132 CC/W33	*24132 CCK30/W33	
290		80		11.417	3.150	1 000	1 290	118	2 000	2 800	22.5	*22232 CC/W33	*22232 CCK/W33	
290		104		11.417	4.094	1 220	1 660	153	1 500	2 200	31	*23232 CC/W33	*23232 CCK/W33	
340		114		13.386	4.488	1 600	1 960	160	1 500	1 900	52	*22332 CC/W33	*22332 CCK/W33	
170		260	67	6.693	10.236	2.638	710	1 060	100	2 200	2 800	13	*23034 CC/W33	*23034 CCK/W33
		260	90		10.236	3.543	930	1 460	137	1 600	2 400	17.5	*24034 CC/W33	*24034 CCK30/W33
		280	88		11.024	3.465	1 040	1 500	137	1 800	2 400	22	*23134 CC/W33	*23134 CCK/W33
	280	109	11.024		4.291	1 220	1 860	170	1 300	1 900	27.5	*24134 CC/W33	*24134 CCK30/W33	
	310	86		12.205	3.386	1 120	1 460	132	1 900	2 600	28.5	*22234 CC/W33	*22234 CCK/W33	
	310	110		12.205	4.331	1 400	1 930	173	1 400	2 000	37.5	*23234 CC/W33	*23234 CCK/W33	
	360	120		14.173	4.724	1 760	2 160	176	1 400	1 800	61	*22334 CC/W33	*22334 CCK/W33	
	180	250	52	7.087	9.843	2.047	431	830	76.5	2 200	2 800	7.9	23936 CC/W33	23936 CCK/W33
		280	74		11.024	2.913	830	1 250	114	2 000	2 600	17	*23036 CC/W33	*23036 CCK/W33
		280	100		11.024	3.937	1 080	1 730	156	1 500	2 200	23	*24036 CC/W33	*24036 CCK30/W33
300		96	11.811		3.780	1 200	1 760	160	1 700	2 200	28	*23136 CC/W33	*23136 CCK/W33	
300		118	11.811	4.646	1 400	2 160	196	1 300	1 700	34.5	*24136 CC/W33	*24136 CCK30/W33		
320		86		12.598	3.386	1 180	1 560	140	1 800	2 600	29.5	*22236 CC/W33	*22236 CCK/W33	
320		112		12.598	4.409	1 500	2 120	186	1 300	1 900	39.5	*23236 CC/W33	*23236 CCK/W33	
380		126		14.961	4.961	2 000	2 450	193	1 300	1 700	71.5	*22336 CC/W33	*22336 CCK/W33	
190		260	52	7.480	10.236	2.047	414	800	76.5	2 200	2 600	8.3	23938 CC/W33	23938 CCK/W33
		290	75		11.417	2.953	865	1 340	122	1 900	2 400	18	*23038 CC/W33	*23038 CCK/W33
	290	100	11.417		3.937	1 120	1 800	163	1 400	2 000	24.5	*24038 CC/W33	*24038 CCK30/W33	
	320	104	12.598		4.094	1 370	2 080	183	1 500	2 000	35	*23138 CC/W33	*23138 CCK/W33	
	320	128	12.598	5.039	1 600	2 500	212	1 200	1 600	43	*24138 CC/W33	*24138 CCK30/W33		
	340	92		13.386	3.622	1 270	1 700	150	1 700	2 400	36.5	*22238 CC/W33	*22238 CCK/W33	
	340	120		13.386	4.724	1 660	2 400	208	1 300	1 800	48	*23238 CC/W33	*23238 CCK/W33	
	400	132		15.748	5.197	2 120	2 650	208	1 200	1 600	82.5	*22338 CC/W33	*22338 CCK/W33	
	200	280	60	7.874	11.024	2.362	546	1 040	93	2 000	2 400	11.5	23940 CC/W33	23940 CCK/W33
		310	82		12.205	3.228	1 000	1 530	137	1 800	2 200	23.3	*23040 CC/W33	*23040 CCK/W33
310		109	12.205		4.291	1 290	2 120	186	1 300	1 900	31	*24040 CC/W33	*24040 CCK30/W33	
340		112	13.386		4.409	1 600	2 360	204	1 500	1 900	43	*23140 CC/W33	*23140 CCK/W33	
340		140	13.386	5.512	1 800	2 800	232	1 100	1 500	53.5	*24140 CC/W33	*24140 CCK30/W33		
360		98		14.173	3.858	1 460	1 930	166	1 600	2 200	43.5	*22240 CC/W33	*22240 CCK/W33	
360		128		14.173	5.039	1 860	2 700	228	1 200	1 700	58	*23240 CC/W33	*23240 CCK/W33	
420		138		16.535	5.433	2 320	2 900	224	1 200	1 500	95	*22340 CC/W33	*22340 CCK/W33	

* SKF Explorer bearing

Spherical roller bearings

d 220 - 300 mm

d 8.661 - 11.811 in

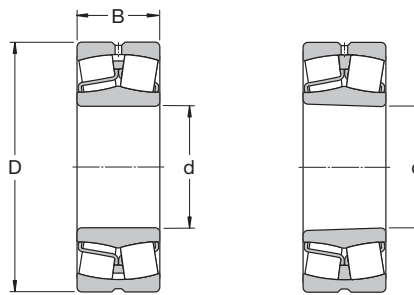
Principal dimensions						Basic load ratings		Fatigue load limit P _U	Speed ratings		Mass	Designations			
d	D	B	d	D	B	dynamic C	static C ₀		Refer- ence speed	Limiting speed		Bearing with cylindrical bore	tapered bore		
mm			in			kN		kN	r/min		kg	—			
220	300	60	8.661	11.811	2.362	546	1 080	93	1 900	2 200	12.5	23944 CC/W33	23944 CCK/W33		
	340	90		13.386	3.543	1 220	1 860	163	1 600	2 000	30.5	* 23044 CC/W33	* 23044 CCK/W33		
	340	118		13.386	4.646	1 560	2 600	212	1 200	1 700	40	* 24044 CC/W33	* 24044 CCK30/W33		
	370	120		14.567	4.724	1 800	2 750	232	1 300	1 700	53.5	* 23144 CC/W33	* 23144 CCK/W33		
	370	150		14.567	5.906	2 120	3 350	285	1 000	1 400	67	* 24144 CC/W33	* 24144 CCK30/W33		
	400	108		15.748	4.252	1 760	2 360	196	1 500	2 000	60.5	* 22244 CC/W33	* 22244 CCK/W33		
	400	144		15.748	5.669	2 360	3 450	285	1 100	1 500	81.5	* 23244 CC/W33	* 23244 CCK/W33		
	460	145		18.110	5.709	2 700	3 450	260	1 000	1 400	120	* 22344 CC/W33	* 22344 CCK/W33		
	240	320		60	9.449	12.598	2.362	564	1 160	98	1 700	2 000	13.5	23948 CC/W33	23948 CCK/W33
		360		92		14.173	3.622	1 290	2 080	176	1 500	1 900	33.5	* 23048 CC/W33	* 23048 CCK/W33
360		118	14.173	4.646		1 600	2 700	228	1 100	1 600	43	* 24048 CC/W33	* 24048 CCK30/W33		
400		128	15.748	5.039		2 080	3 200	255	1 200	1 600	66.5	* 23148 CC/W33	* 23148 CCK/W33		
400		160	15.748	6.299		2 400	3 900	320	900	1 300	83	* 24148 CC/W33	* 24148 CCK30/W33		
440		120	17.323	4.724		2 200	3 000	245	1 300	1 800	83	* 22248 CC/W33	* 22248 CCK/W33		
440		160	17.323	6.299		2 900	4 300	345	950	1 300	110	* 23248 CC/W33	* 23248 CCK/W33		
500		155	19.685	6.102		3 100	4 000	290	950	1 300	155	* 22348 CC/W33	* 22348 CCK/W33		
260		360	75	10.236		14.173	2.953	880	1 800	156	1 500	1 900	23.5	23952 CC/W33	23952 CCK/W33
		400	104			15.748	4.094	1 600	2 550	212	1 300	1 700	48.5	* 23052 CC/W33	* 23052 CCK/W33
	400	140	15.748		5.512	2 040	3 450	285	1 000	1 400	65.5	* 24052 CC/W33	* 24052 CCK30/W33		
	440	144	17.323		5.669	2 550	3 900	290	1 100	1 400	90.5	* 23152 CC/W33	* 23152 CCK/W33		
	440	180	17.323		7.087	3 000	4 800	380	850	1 200	110	* 24152 CC/W33	* 24152 CCK30/W33		
	480	130	18.898		5.118	2 650	3 550	285	1 200	1 600	110	* 22252 CC/W33	* 22252 CCK/W33		
	480	174	18.898		6.850	3 250	4 750	360	850	1 200	140	* 23252 CC/W33	* 23252 CCK/W33		
	540	165	21.260		6.496	3 550	4 550	325	850	1 100	190	* 22352 CC/W33	* 22352 CCK/W33		
	280	380	75		11.024	14.961	2.953	845	1 760	143	1 400	1 700	25	23956 CC/W33	23956 CCK/W33
		420	106			16.535	4.173	1 730	2 850	224	1 300	1 600	52.5	* 23056 CC/W33	* 23056 CCK/W33
420		140	16.535	5.512		2 160	3 800	285	950	1 400	69.5	* 24056 CC/W33	* 24056 CCK30/W33		
460		146	18.110	5.748		2 650	4 250	335	1 000	1 300	97	* 23156 CC/W33	* 23156 CCK/W33		
460		180	18.110	7.087		3 100	5 100	415	800	1 100	120	* 24156 CC/W33	* 24156 CCK30/W33		
500		130	19.685	5.118		2 700	3 750	300	1 100	1 500	115	* 22256 CC/W33	* 22256 CCK/W33		
500		176	19.685	6.929		3 250	4 900	365	800	1 100	150	* 23256 CC/W33	* 23256 CCK/W33		
580		175	22.835	6.890		4 000	5 200	365	800	1 100	235	* 22356 CC/W33	* 22356 CCK/W33		
300		380	60	11.811		14.961	2.362	656	1 600	137	1 400	1 700	16.5	23860 CAMA	23860 CAKMA
		420	90			16.535	3.543	1 200	2 500	200	1 300	1 600	39.5	23960 CC/W33	23960 CCK/W33
	460	118	18.110		4.646	2 120	3 450	265	1 200	1 500	71.5	* 23060 CC/W33	* 23060 CCK/W33		
	460	160	18.110		6.299	2 700	4 750	355	850	1 200	97	* 24060 CC/W33	* 24060 CCK30/W33		
	500	160	19.685		6.299	3 200	5 100	380	950	1 200	125	* 23160 CC/W33	* 23160 CCK/W33		
	500	200	19.685		7.874	3 750	6 300	465	700	1 000	160	* 24160 CC/W33	* 24160 CCK30/W33		
	540	140	21.260		5.512	3 150	4 250	325	1 000	1 400	145	* 22260 CC/W33	* 22260 CCK/W33		
	540	192	21.260		7.559	3 900	5 850	425	750	1 000	190	* 23260 CC/W33	* 23260 CCK/W33		

* SKF Explorer bearing

Spherical roller bearings

d 320 - 420 mm

d 12.598 - 16.535 in



Principal dimensions						Basic load ratings		Fatigue load limit P_U	Speed ratings		Mass kg	Designations		
d	D	B	d	D	B	dynamic C	static C_0		Refer- ence speed	Limiting speed		Bearing with cylindrical bore	tapered bore	
mm			in			kN		kN	r/min		kg	—		
320	440	90	12.598	17.323	3.543	1 430	2 700	212	1 400	1 500	42	* 23964 CC/W33	* 23964 CCK/W33	
	480	121		18.898	4.764	2 240	3 800	285	1 100	1 400	78	* 23064 CC/W33	* 23064 CCK/W33	
	480	160		18.898	6.299	2 850	5 100	400	800	1 200	100	* 24064 CC/W33	* 24064 CCK30/W33	
	540	176		21.260	6.929	3 750	6 000	440	850	1 100	165	* 23164 CC/W33	* 23164 CCK/W33	
	540	218		21.260	8.583	4 250	7 100	510	670	900	210	* 24164 CC/W33	* 24164 CCK30/W33	
	580	150		22.835	5.906	3 600	4 900	375	950	1 300	175	* 22264 CC/W33	* 22264 CCK/W33	
	580	208		22.835	8.189	4 400	6 700	480	700	950	240	* 23264 CC/W33	* 23264 CCK/W33	
	340	460	90	13.386	18.110	3.543	1 460	2 800	216	1 300	1 400	45.5	* 23968 CC/W33	* 23968 CCK/W33
		520	133		20.472	5.236	2 700	4 550	335	1 000	1 300	105	* 23068 CC/W33	* 23068 CCK/W33
		520	180		20.472	7.087	3 450	6 200	475	750	1 100	140	* 24068 CC/W33	* 24068 CCK30/W33
580		190		22.835	7.480	4 250	6 800	480	800	1 000	210	* 23168 CC/W33	* 23168 CCK/W33	
580		243		22.835	9.567	5 300	8 650	630	600	850	280	* 24168 ECCJ/W33	* 24168 ECCK30J/W33	
620		224		24.409	8.819	5 100	7 800	550	560	800	295	* 23268 CA/W33	* 23268 CAK/W33	
360	480	90	14.173	18.898	3.543	1 400	2 750	220	1 200	1 300	43	* 23972 CC/W33	* 23972 CCK/W33	
	540	134		21.260	5.276	2 750	4 800	345	950	1 200	110	* 23072 CC/W33	* 23072 CCK/W33	
	540	180		21.260	7.087	3 550	6 550	490	700	1 000	145	* 24072 CC/W33	* 24072 CCK30/W33	
	600	192		23.622	7.559	4 300	6 950	490	750	1 000	220	* 23172 CC/W33	* 23172 CCK/W33	
	600	243		23.622	9.567	5 600	9 300	670	560	800	270	* 24172 ECCJ/W33	* 24172 ECCK30J/W33	
	650	170		25.591	6.693	4 300	6 200	440	630	850	255	* 22272 CA/W33	* 22272 CAK/W33	
	650	232		25.591	9.134	5 400	8 300	570	530	750	335	* 23272 CA/W33	* 23272 CAK/W33	
	380	520	106	14.961	20.472	4.173	1 960	3 800	285	1 100	1 200	69	* 23976 CC/W33	* 23976 CCK/W33
560		135	22.047		5.315	2 900	5 000	360	900	1 200	115	* 23076 CC/W33	* 23076 CCK/W33	
560		180	22.047		7.087	3 600	6 800	480	670	950	150	* 24076 CC/W33	* 24076 CCK30/W33	
620		194		24.409	7.638	4 400	7 100	500	560	1 000	230	* 23176 CA/W33	* 23176 CAK/W33	
620		243		24.409	9.567	5 700	9 800	710	480	850	300	* 24176 ECA/W33	* 24176 ECAK30/W33	
680		240		26.772	9.449	5 850	9 150	620	500	750	375	* 23276 CA/W33	* 23276 CAK/W33	
400		540	106	15.748	21.260	4.173	2 000	3 900	290	1 100	1 200	71	* 23980 CC/W33	* 23980 CCK/W33
	600	148	23.622		5.827	3 250	5 700	400	850	1 100	150	* 23080 CC/W33	* 23080 CCK/W33	
	600	200	23.622		7.874	4 300	8 000	560	630	900	205	* 24080 ECCJ/W33	* 24080 ECCK30J/W33	
	650	200		25.591	7.874	4 650	7 650	530	530	950	265	* 23180 CA/W33	* 23180 CAK/W33	
	650	250		25.591	9.843	6 200	10 600	735	430	800	340	* 24180 ECA/W33	* 24180 ECAK30/W33	
	720	256		28.346	10.079	6 550	10 400	680	480	670	450	* 23280 CA/W33	* 23280 CAK/W33	
	820	243		32.283	9.567	7 500	10 400	670	430	750	650	* 22380 CA/W33	* 22380 CAK/W33	
	420	560	106	16.535	22.047	4.173	2 040	4 150	300	1 000	1 100	74.5	* 23984 CC/W33	* 23984 CCK/W33
620		150	24.409		5.906	3 400	6 000	415	600	1 100	155	* 23084 CA/W33	* 23084 CAK/W33	
620		200	24.409		7.874	4 400	8 300	585	530	900	210	* 24084 ECA/W33	* 24084 ECAK30/W33	
700		224		27.559	8.819	5 600	9 300	620	480	900	350	* 23184 CJ/W33	* 23184 CKJ/W33	
700		280		27.559	11.024	7 350	12 600	850	400	700	445	* 24184 ECA/W33	* 24184 ECAK30/W33	
760		272		29.921	10.709	7 350	11 600	765	450	630	535	* 23284 CA/W33	* 23284 CAK/W33	

* SKF Explorer bearing

Spherical roller bearings

d 440 - 560 mm

d 17.323 - 22.047 in

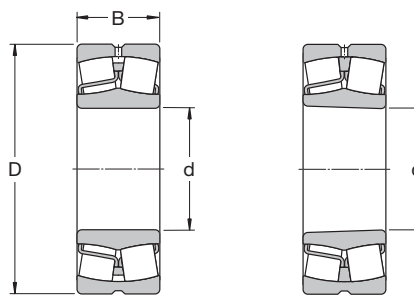
Principal dimensions						Basic load ratings		Fatigue load limit P _U	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic C	static C ₀		Refer- ence speed	Limiting speed		Bearing with cylindrical bore	tapered bore
mm			in			kN		kN	r/min		kg	—	
440	600	118	17.323	23.622	4.646	2 450	4 900	345	950	1 000	99.5	* 23988 CA/W33	* 23988 CCK/W33
	650	157		25.591	6.181	3 650	6 550	450	560	1 000	180	* 23088 CA/W33	* 23088 CAK/W33
	650	212		25.591	8.346	4 800	9 150	630	500	850	245	* 24088 ECA/W33	* 24088 ECAK30/W33
	720	226		28.346	8.898	6 000	10 000	670	450	850	360	* 23188 CA/W33	* 23188 CAK/W33
	720	280		28.346	11.024	7 500	13 200	900	400	700	460	* 24188 ECA/W33	* 24188 ECAK30/W33
	790	280		31.102	11.024	7 800	12 500	800	430	600	590	* 23288 CA/W33	* 23288 CAK/W33
	460	580	118	18.110	22.835	4.646	1 790	4 900	345	560	1 100	75.5	24892 CAMA/W20
620		118	24.409		4.646	2 500	5 000	355	600	1 000	105	* 23992 CA/W33	* 23992 CAK/W33
680		163	26.772		6.417	3 900	6 950	465	560	950	205	* 23092 CA/W33	* 23092 CAK/W33
680		218		26.772	8.583	5 200	10 000	670	480	800	275	* 24092 ECA/W33	* 24092 ECAK30/W33
760		240		29.921	9.449	6 400	10 800	680	430	800	440	* 23192 CA/W33	* 23192 CAK/W33
760		300		29.921	11.811	8 300	14 600	1 000	360	670	560	* 24192 ECA/W33	* 24192 ECAK30/W33
830		296		32.677	11.654	8 500	13 700	880	400	560	695	* 23292 CA/W33	* 23292 CAK/W33
480	600	90	18.898	23.622	3.543	1 440	3 750	280	530	1 100	61	23896 CAMA/W20	23896 CAKMA/W20
	650	128		25.591	5.039	2 900	5 700	405	560	1 000	125	* 23996 CA/W33	* 23996 CAK/W33
	700	165		27.559	6.496	3 900	6 800	450	530	950	215	* 23096 CA/W33	* 23096 CAK/W33
	700	218		27.559	8.583	5 300	10 400	695	450	750	285	* 24096 ECA/W33	* 24096 ECAK30/W33
	790	248		31.102	9.764	6 950	12 000	780	400	750	485	* 23196 CA/W33	* 23196 CAK/W33
	790	308		31.102	12.126	9 000	15 600	1 040	340	630	605	* 24196 ECA/W33	* 24196 ECAK30/W33
	870	310		34.252	12.205	9 300	15 000	950	380	530	800	* 23296 CA/W33	* 23296 CAK/W33
500	620	90	19.685	24.409	3.543	1 480	4 000	290	530	1 000	62	238/500 CAMA/W20	238/500 CAKMA/W20
	670	128		26.378	5.039	2 900	6 000	415	530	950	130	* 239/500 CA/W33	* 239/500 CAK/W33
	720	167		28.346	6.575	4 150	7 800	510	500	900	225	* 230/500 CA/W33	* 230/500 CAK/W33
	720	218		28.346	8.583	5 500	11 000	735	430	700	295	* 240/500 ECA/W33	* 240/500 ECAK30/W33
	830	264		32.677	10.394	7 650	12 900	830	380	700	580	* 231/500 CA/W33	* 231/500 CAK/W33
	830	325		32.677	12.795	9 800	17 000	1 120	320	600	700	* 241/500 ECA/W33	* 241/500 ECAK30/W33
	920	336		36.220	13.228	10 600	17 300	1 060	360	500	985	* 232/500 CA/W33	* 232/500 CAK/W33
530	650	118	20.866	25.591	4.646	1 840	5 300	380	480	950	86	248/530 CAMA/W20	248/530 CAK30MA/W20
	710	136		27.953	5.354	3 200	6 700	480	500	900	155	* 239/530 CA/W33	* 239/530 CAK/W33
	780	185		30.709	7.283	5 100	9 300	630	450	800	310	* 230/530 CA/W33	* 230/530 CAK/W33
	780	250		30.709	9.843	6 700	13 200	830	400	670	410	* 240/530 ECA/W33	* 240/530 ECAK30/W33
	870	272		34.252	10.709	8 150	14 000	915	360	670	645	* 231/530 CA/W33	* 231/530 CAK/W33
	870	335		34.252	13.189	10 600	19 000	1 220	300	560	830	* 241/530 ECA/W33	* 241/530 ECAK30/W33
	980	355		38.583	13.976	11 100	20 400	1 220	300	480	1 200	232/530 CA/W33	232/530 CAK/W33
560	750	140	22.047	29.528	5.512	3 450	7 200	510	450	850	175	* 239/560 CA/W33	* 239/560 CAK/W33
	820	195		32.283	7.677	5 600	10 200	680	430	750	355	* 230/560 CA/W33	* 230/560 CAK/W33
	820	258		32.283	10.157	7 350	14 600	960	380	630	465	* 240/560 ECA/W33	* 240/560 ECAK30/W33
	920	280		36.220	11.024	9 150	16 000	980	340	630	740	* 231/560 CA/W33	* 231/560 CAK/W33
	920	355		36.220	13.976	12 000	21 600	1 340	280	500	985	* 241/560 ECJ/W33	* 241/560 ECK30J/W33
	1030	365		40.551	14.370	11 500	22 000	1 400	280	430	1 350	232/560 CA/W33	232/560 CAK/W33

* SKF Explorer bearing

Spherical roller bearings

d 600 - 800 mm

d 23.622 - 31.496 in



Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass kg	Designations		
d	D	B	d	D	B	dynamic C	static C ₀		Refer- ence speed	Limiting speed		Bearing with cylindrical bore	tapered bore	
mm			in			kN		kN	r/min		–			
600	800	150	23.622	31.496	5.906	3 900	8 300	585	430	750	220	* 239/600 CA/W33	* 239/600 CAK/W33	
	870	200		34.252	7.874	6 000	11 400	750	400	700	405	* 230/600 CA/W33	* 230/600 CAK/W33	
	870	272		34.252	10.709	8 150	17 000	1 100	340	560	520	* 240/600 ECA/W33	* 240/600 ECAK30/W33	
	980	300		38.583	11.811	10 200	18 000	1 100	320	560	895	* 231/600 CA/W33	* 231/600 CAK/W33	
	980	375		38.583	14.764	11 500	23 600	1 460	240	480	1 200	241/600 ECA/W33	241/600 ECAK30/W33	
	1090	388		42.913	15.276	13 100	25 500	1 560	260	400	1 600	232/600 CA/W33	232/600 CAK/W33	
	630	780	112	24.803	30.709	4.409	2 190	6 100	415	400	750	120	238/630 CAMA/W20	238/630 CAKMA/W20
	850	165		33.465	6.496	4 650	9 800	640	400	700	280	* 239/630 CA/W33	* 239/630 CAK/W33	
	920	212		36.220	8.346	6 700	12 500	800	380	670	485	* 230/630 CA/W33	* 230/630 CAK/W33	
920	290		36.220	11.417	8 800	18 000	1 140	320	530	645	* 240/630 ECJ/W33	* 240/630 ECK30J/W33		
1030	315		40.551	12.402	10 500	20 800	1 220	260	530	1 050	231/630 CA/W33	231/630 CAK/W33		
1030	400		40.551	15.748	12 700	27 000	1 630	220	450	1 400	241/630 ECA/W33	241/630 ECAK30/W33		
670	820	112	26.378	32.283	4.409	2 250	6 400	440	360	700	130	238/670 CAMA/W20	238/670 CAKMA/W20	
	820	150		32.283	5.906	3 110	9 500	655	360	700	172	248/670 CAMA/W20	–	
	900	170		35.433	6.693	5 000	10 800	695	360	670	315	* 239/670 CA/W33	* 239/670 CAK/W33	
	980	230		38.583	9.055	7 650	14 600	915	340	600	600	* 230/670 CA/W33	* 230/670 CAK/W33	
	980	308		38.583	12.126	10 000	20 400	1 320	300	500	790	* 240/670 ECA/W33	* 240/670 ECAK30/W33	
	1090	336		42.913	13.228	10 900	22 400	1 370	240	500	1 250	231/670 CA/W33	231/670 CAK/W33	
	1090	412		42.913	16.220	13 800	29 000	1 760	200	400	1 600	241/670 ECA/W33	241/670 ECAK30/W33	
	1220	438		48.031	17.244	15 400	30 500	1 700	220	360	2 270	232/670 CA/W33	232/670 CAK/W33	
	710	870	118	27.953	34.252	4.646	2 580	7 500	500	340	670	153	238/710 CAMA/W20	–
950		180		37.402	7.087	5 600	12 000	765	340	600	365	* 239/710 CA/W33	* 239/710 CAK/W33	
950		243		37.402	9.567	6 800	15 600	930	300	500	495	* 249/710 CA/W33	* 249/710 CAK30/W33	
1030		236		40.551	9.291	8 300	16 300	1 000	320	560	670	* 230/710 CA/W33	* 230/710 CAK/W33	
1030		315		40.551	12.402	9 370	22 800	1 370	260	450	895	240/710 ECA/W33	240/710 ECAK30/W33	
1150		345		45.276	13.583	12 200	26 000	1 530	240	450	1 450	231/710 CA/W33	231/710 CAK/W33	
1150		438		45.276	17.244	15 200	32 500	1 900	190	380	1 900	241/710 ECA/W33	241/710 ECAK30/W33	
1280		450		50.394	17.717	17 600	34 500	2 000	200	320	2 610	232/710 CA/W33	232/710 CAK/W33	
750		920	128	29.528	36.220	5.039	2 930	8 500	550	320	600	135	238/750 CAMA/W20	238/750 CAKMA/W20
	1000	185		39.370	7.283	6 000	13 200	815	320	560	420	* 239/750 CA/W33	* 239/750 CAK/W33	
	1000	250		39.370	9.843	7 650	18 000	1 100	280	480	560	* 249/750 CA/W33	* 249/750 CAK30/W33	
	1090	250		42.913	9.843	9 650	18 600	1 100	300	530	795	* 230/750 CA/W33	* 230/750 CAK/W33	
	1090	335		42.913	13.189	10 100	25 000	1 460	240	430	1 065	240/750 ECA/W33	240/750 ECAK30/W33	
	1220	365		48.031	14.370	13 800	29 000	1 660	220	430	1 700	231/750 CA/W33	231/750 CAK/W33	
	1220	475		48.031	18.701	17 300	37 500	2 160	180	360	2 100	241/750 ECA/W33	241/750 ECAK30/W33	
	1360	475		53.543	18.701	18 700	36 500	2 120	190	300	3 050	232/750 CAF/W33	232/750 CAFK/W33	
	800	980	180	31.496	38.583	7.087	4 140	12 900	830	300	560	300	248/800 CAMA/W20	248/800 CAK30MA/W20
1060		195		41.732	7.677	6 400	14 300	880	300	530	470	* 239/800 CA/W33	* 239/800 CAK/W33	
1060		258		41.732	10.157	8 000	19 300	1 060	260	430	640	* 249/800 CA/W33	* 249/800 CAK30/W33	
1150		258		45.276	10.157	10 000	20 000	1 160	280	480	895	* 230/800 CA/W33	* 230/800 CAK/W33	
1150		345		45.276	13.583	11 100	28 500	1 730	220	400	1 200	240/800 ECA/W33	240/800 ECAK30/W33	
1280		375		50.394	14.764	14 800	31 500	1 800	200	400	1 920	231/800 CA/W33	231/800 CAK/W33	
1280		475		50.394	18.701	18 400	40 500	2 320	170	320	2 300	241/800 ECA/W33	241/800 ECAK30/W33	

* SKF Explorer bearing

Spherical roller bearings

d 850 - 1800 mm

d 33.465 - 70.866 in

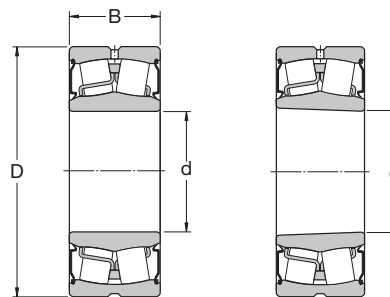
Principal dimensions						Basic load ratings		Fatigue load limit P _U	Speed ratings		Mass	Designations		
d	D	B	d	D	B	dynamic C	static C ₀		Refer- ence speed	Limiting speed		Bearing with cylindrical bore	tapered bore	
mm			in			kN		kN	r/min	kg	–			
850	1030	136	33.465	40.551	5.354	3 340	10 000	640	260	530	240	238/850 CAMA/W20	238/850 CAKMA/W20	
	1120	200		44.094	7.874	5 980	15 600	930	260	480	560	239/850 CA/W33	239/850 CAK/W33	
	1120	272		44.094	10.709	8 170	22 800	1 370	220	400	740	249/850 CA/W33	249/850 CAK30/W33	
	1220	272		48.031	10.709	9 370	21 600	1 270	240	450	1 050	230/850 CA/W33	230/850 CAK/W33	
	1220	365		48.031	14.370	12 700	31 500	1 900	200	360	1 410	240/850 ECA/W33	240/850 ECAK30/W33	
	1360	400		53.543	15.748	16 100	34 500	2 000	180	360	2 200	231/850 CA/W33	231/850 CAK/W33	
	1360	500		53.543	19.685	20 200	45 000	2 550	150	300	2 710	241/850 ECAF/W33	241/850 ECAK30F/W33	
	900	1090	190	35.433	42.913	7.480	4 660	15 300	950	240	480	370	248/900 CAMA/W20	248/900 CAK30MA/W20
		1180	206		46.457	8.110	6 440	17 000	1 020	240	450	605	239/900 CA/W33	239/900 CAK/W33
		1280	280		50.394	11.024	10 100	23 200	1 340	220	400	1 200	230/900 CA/W33	230/900 CAK/W33
1280		375	50.394		14.764	13 600	34 500	2 040	190	340	1 570	240/900 ECA/W33	240/900 ECAK30/W33	
1420		515	55.905		20.276	21 400	49 000	2 700	140	280	3 350	241/900 ECAF/W33	241/900 ECAK30F/W33	
950		1250	224		37.402	49.213	8.819	7 250	19 600	1 120	220	430	755	239/950 CA/W33
	1250	300	49.213	11.811		9 200	26 000	1 500	180	340	1 015	249/950 CA/W33	249/950 CAK30/W33	
	1360	300	53.543	11.811		12 000	28 500	1 600	200	380	1 450	230/950 CA/W33	230/950 CAK/W33	
	1360	412	53.543	16.220		14 800	39 000	2 320	170	300	1 990	240/950 CAF/W33	240/950 CAK30F/W33	
	1500	545	59.055	21.457		23 900	55 000	3 000	130	260	3 535	241/950 ECAF/W33	241/950 ECAK30F/W33	
	1000	1220	165	39.370		48.031	6.496	4 660	14 300	865	220	400	410	238/1000 CAMA/W20
1320		315	51.968		12.402	10 400	29 000	1 500	170	320	1 200	249/1000 CA/W33	249/1000 CAK30/W33	
1420		308	55.905		12.126	12 700	30 500	1 700	180	360	1 600	230/1000 CAF/W33	230/1000 CAKF/W33	
1420		412	55.905		16.220	15 400	40 500	2 240	160	280	2 140	240/1000 CAF/W33	240/1000 CAK30F/W33	
1580		462	62.205		18.189	21 400	48 000	2 550	140	280	3 500	231/1000 CAF/W33	231/1000 CAKF/W33	
1580		580	62.205		22.835	26 700	62 000	3 350	120	240	4 300	241/1000 ECAF/W33	241/1000 ECAK30F/W33	
1060	1280	165	41.732	50.394	6.496	4 770	15 000	800	200	380	435	238/1060 CAMA/W20	238/1060 CAKMA/W20	
	1280	218		50.394	8.583	6 100	20 000	1 200	200	380	570	248/1060 CAMA/W20	248/1060 CAK30MA/W20	
	1400	250		55.118	9.843	9 550	26 000	1 460	180	360	1 100	239/1060 CAF/W33	239/1060 CAKF/W33	
	1400	335		55.118	13.189	11 500	32 500	1 860	160	280	1 400	249/1060 CAF/W33	249/1060 CAK30F/W33	
	1500	325		59.055	12.795	13 800	34 000	1 830	170	320	2 250	230/1060 CAF/W33	230/1060 CAKF/W33	
	1500	438		59.055	17.244	17 300	45 500	2 500	150	260	2 515	240/1060 CAF/W33	240/1060 CAK30F/W33	
	1120	1360		243	44.094	53.543	9.567	7 250	24 000	1 400	180	340	735	248/1120 CAF/W20
1460		335	57.480	13.189		11 700	34 500	1 830	140	260	1 500	249/1120 CAF/W33	249/1120 CAK30F/W33	
1580		462	62.205	18.189		18 700	50 000	2 850	130	240	2 925	240/1120 CAF/W33	240/1120 CAK30F/W33	
1180	1420	180	46.457	55.905	7.087	5 870	18 600	1 080	170	320	575	238/1180 CAF/W20	238/1180 CAKFA/W20	
	1420	243		55.905	9.567	7 710	27 000	1 560	170	320	770	248/1180 CAF/W20	248/1180 CAK30FA/W20	
	1540	272		60.630	10.709	11 100	31 000	1 660	150	300	1 400	239/1180 CAF/W33	239/1180 CAKF/W33	
	1540	355		60.630	13.976	13 600	40 500	2 160	130	240	1 800	249/1180 CAF/W33	249/1180 CAK30F/W33	
1250	1750	375	49.213	68.898	14.764	17 900	45 000	2 400	130	240	2 840	230/1250 CAF/W33	230/1250 CAKF/W33	
1320	1600	280	51.968	62.992	11.024	9 780	33 500	1 860	140	260	1 160	248/1320 CAF/W20	248/1320 CAK30FA/W20	
	1720	400		67.716	15.748	16 100	49 000	2 550	110	200	2 500	249/1320 CAF/W33	249/1320 CAK30F/W33	
1500	1820	315	59.055	71.653	12.402	12 700	45 000	2 400	110	200	1 710	248/1500 CAF/W20	248/1500 CAK30FA/W20	
1800	2180	375	70.866	85.827	14.764	17 600	63 000	3 050	75	130	2 900	248/1800 CAF/W20	248/1800 CAK30FA/W20	

* SKF Explorer bearing

Sealed spherical roller bearings

d 30 - 140 mm

d 1.181 - 5.512 in



Principal dimensions						Basic load ratings		Fatigue load limit	Limiting speed	Mass	Designations	
d	D	B	d	D	B	dynamic C	static C ₀	P _u	r/min	kg	Bearing with cylindrical bore	tapered bore
mm			in			kN		kN			–	
30	62	25	1.181	2.441	0.984	64	60	6.4	2 800	0.34	* BS2-2206-2CS	–
35	72	28	1.378	2.835	1.102	86.5	85	9.3	2 400	0.52	* BS2-2207-2CS	–
40	80	28	1.575	3.150	1.102	96.5	90	9.8	2 200	0.57	* BS2-2208-2CS	* BS2-2208-2CSK
45	85	28	1.772	3.346	1.102	102	98	10.8	2 000	0.66	* BS2-2209-2CS	* BS2-2209-2CSK
50	90	28	1.969	3.543	1.102	104	108	11.8	1 900	0.70	* BS2-2210-2CS	* BS2-2210-2CSK
55	100	31	2.165	3.937	1.220	125	127	13.7	1 700	1.00	* BS2-2211-2CS	* BS2-2211-2CSK
60	110	34	2.362	4.331	1.339	156	166	18.6	1 600	1.30	* BS2-2212-2CS	* BS2-2212-2CSK
65	100	35	2.559	3.937	1.378	132	173	20.4	1 000	0.95	* 24013-2CS5/VT143	–
	120	38		4.724	1.496	193	216	24	1 500	1.60	* BS2-2213-2CS	* BS2-2213-2CSK
70	125	38	2.756	4.921	1.496	208	228	25.5	1 400	1.80	* BS2-2214-2CS	* BS2-2214-2CSK
75	115	40	2.953	4.528	1.575	173	232	28.5	950	1.55	* 24015-2CS2/VT143	–
	130	38		5.118	1.496	212	240	26.5	1 300	2.10	* BS2-2215-2CS	* BS2-2215-2CSK
80	140	40	3.150	5.512	1.575	236	270	29	1 200	2.40	* BS2-2216-2CS	* BS2-2216-2CSK
85	150	44	3.346	5.906	1.732	285	325	34.5	1 100	3.00	* BS2-2217-2CS	* BS2-2217-2CSK
90	160	48	3.543	6.299	1.890	325	375	39	1 000	3.70	* BS2-2218-2CS	* BS2-2218-2CSK
100	150	50	3.937	5.906	1.969	285	415	45.5	800	3.15	* 24020-2CS2/VT143	–
	165	52		6.496	2.047	365	490	53	850	4.55	* 23120-2CS2/VT143	–
	180	55		7.087	2.165	425	490	49	900	5.50	* BS2-2220-2CS	–
	180	60.3		7.087	2.374	475	600	63	700	6.85	* 23220-2CS	–
110	170	45	4.331	6.693	1.772	310	440	46.5	900	3.80	* 23022-2CS	–
	180	56		7.087	2.205	430	585	61	800	5.75	* 23122-2CS2/VT143	–
	180	69		7.087	2.717	520	750	78	630	7.10	* 24122-2CS2/VT143	–
	200	63		7.874	2.480	560	640	63	800	7.60	* BS2-2222-2CS5/VT143	–
120	180	46	4.724	7.087	1.811	355	510	52	850	4.20	* 23024-2CS2/VT143	
	180	60		7.087	2.362	430	670	68	670	5.45	* 24024-2CS2/VT143	
	200	80		7.874	3.150	655	950	95	560	10.5	* 24124-2CS2/VT143	
	215	69		8.465	2.717	630	765	73.5	750	9.75	* BS2-2224-2CS	
130	200	52	5.118	7.874	2.047	430	610	62	800	6.00	* 23026-2CS2/VT143	
	200	69		7.874	2.717	540	815	81.5	600	8.05	* 24026-2CS2/VT143	
	210	80		8.268	3.150	680	1 000	100	530	11.0	* 24126-2CS2/VT143	
140	210	69	5.512	8.268	2.717	570	900	88	560	8.55	* 24028-2CS2/VT143	
	225	85		8.858	3.346	765	1 160	112	450	13.5	* 24128-2CS2/VT143	

* SKF Explorer bearing

Sealed spherical roller bearings

d 150 - 220 mm

d 5.906 - 8.661 in

Principal dimensions						Basic load ratings		Fatigue load limit	Limiting speed	Mass	Designations
d	D	B	d	D	B	dynamic C	static C ₀	P _u			Bearing with cylindrical bore
mm			in			kN		kN	r/min	kg	—
150	225	75	5.906	8.858	2.953	655	1 040	100	530	10.5	* 24030-2CS2/VT143
	250	100		9.843	3.937	1 020	1 530	146	400	20.0	* 24130-2CS2/VT143
160	240	80	6.299	9.449	3.150	750	1 200	114	450	13.0	* 24032-2CS2/VT143
	270	86		10.630	3.386	980	1 370	129	530	20.5	* 23132-2CS2/VT143
170	260	90	6.693	10.236	3.543	930	1 460	137	400	17.5	* 24034-2CS2/VT143
	280	109		11.024	4.291	1 220	1 860	170	360	27.5	* 24134-2CS2/VT143
180	280	100	7.087	11.024	3.937	1 080	1 730	156	380	23.0	* 24036-2CS2/VT143
190	320	128	7.480	12.598	5.039	1 600	2 500	212	340	43.0	* 24138-2CS2/VT143
200	340	140	7.874	13.386	5.512	1 800	2 800	232	320	53.5	* 24140-2CS
	360	128		14.173	5.039	1 860	2 700	228	430	58.0	* 23240-2CS2/VT143
220	300	60	8.661	11.811	2.362	546	1 080	93	600	12.5	23944-2CS

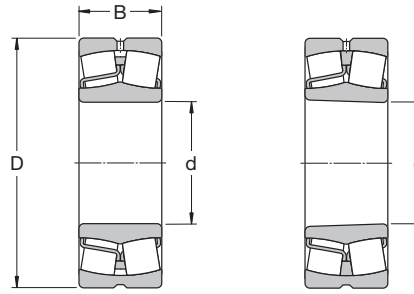


* SKF Explorer bearing

Spherical roller bearings for vibratory applications

d 40 - 170 mm

d 1.575 - 6.693 in



Principal dimensions						Basic load ratings		Fatigue load limit	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic C	static C ₀	P _u	Refer-ence speed	Limiting speed	kg	Bearing with cylindrical bore	tapered bore
mm			in			kN		kN	r/min			–	
40	90	33	1.575	3.543	1.299	150	140	15	6 000	8 000	1.1	*22308 E/VA405	–
45	100	36	1.772	3.937	1.417	183	183	19.6	5 300	7 000	1.4	*22309 E/VA405	–
50	110	40	1.969	4.331	1.575	220	224	24	4 800	6 300	1.9	*22310 E/VA405	–
55	120	43	2.165	4.724	1.693	270	280	30	4 300	5 600	2.45	*22311 E/VA405	*22311 EK/VA405
60	130	46	2.362	5.118	1.811	310	335	36.5	4 000	5 300	3.1	*22312 E/VA405	*22312 EK/VA405
65	140	48	2.559	5.512	1.890	340	360	38	3 800	5 000	3.75	*22313 E/VA405	*22313 EK/VA405
70	150	51	2.756	5.906	2.008	400	430	45	3 400	4 500	4.55	*22314 E/VA405	*22314 EK/VA405
75	160	55	2.953	6.299	2.165	440	475	48	3 200	4 300	5.55	*22315 EJA/VA405	*22315 EKJA/VA405
80	170	58	3.150	6.693	2.283	490	540	54	3 000	4 000	6.6	*22316 EJA/VA405	*22316 EKJA/VA405
85	180	60	3.346	7.087	2.362	550	620	61	2 800	3 800	7.65	*22317 EJA/VA405	*22317 EKJA/VA405
	180	60		7.087	2.362	550	620	61	2 800	3 800	7.65	*22317 EJA/VA406	–
90	190	64	3.543	7.480	2.520	610	695	67	2 600	3 600	9.05	*22318 EJA/VA405	*22318 EKJA/VA405
95	200	67	3.740	7.874	2.638	670	765	73.5	2 600	3 400	10.5	*22319 EJA/VA405	*22319 EKJA/VA405
100	215	73	3.937	8.465	2.874	815	950	88	2 400	3 000	13.5	*22320 EJA/VA405	*22320 EKJA/VA405
	215	73		8.465	2.874	815	950	88	2 400	3 000	13.5	*22320 EJA/VA406	–
110	240	80	4.331	9.449	3.150	950	1 120	100	2 000	2 800	18.4	*22322 EJA/VA405	*22322 EKJA/VA405
	240	80		9.449	3.150	950	1 120	100	2 000	2 800	18.4	*22322 EJA/VA406	–
120	260	86	4.724	10.236	3.386	965	1 120	100	2 000	2 600	23	*22324 CCJA/W33VA405	*22324 CCKJA/W33VA405
	260	86		10.236	3.386	965	1 120	100	2 000	2 600	23	*22324 CCJA/W33VA406	–
130	280	93	5.118	11.024	3.661	1 120	1 320	114	1 800	2 400	29	*22326 CCJA/W33VA405	*22326 CCKJA/W33VA405
	280	93		11.024	3.661	1 120	1 320	114	1 800	2 400	29	*22326 CCJA/W33VA406	–
140	300	102	5.512	11.811	4.016	1 290	1 560	132	1 700	2 200	36.5	*22328 CCJA/W33VA405	*22328 CCKJA/W33VA405
	300	102		11.811	4.016	1 290	1 560	132	1 700	2 200	36.5	*22328 CCJA/W33VA406	–
150	320	108	5.906	12.598	4.252	1 460	1 760	146	1 600	2 000	43.5	*22330 CCJA/W33VA405	*22330 CCKJA/W33VA405
	320	108		12.598	4.252	1 460	1 760	146	1 600	2 000	43.5	*22330 CCJA/W33VA406	–
160	340	114	6.299	13.386	4.488	1 600	1 960	160	1 500	1 900	52	*22332 CCJA/W33VA405	*22332 CCKJA/W33VA405
	340	114		13.386	4.488	1 600	1 960	160	1 500	1 900	52	*22332 CCJA/W33VA406	–
170	360	120	6.693	14.173	4.724	1 760	2 160	176	1 400	1 800	61	*22334 CCJA/W33VA405	*22334 CCKJA/W33VA405
	360	120		14.173	4.724	1 760	2 160	176	1 400	1 800	61	*22334 CCJA/W33VA406	–

* SKF Explorer bearing

Spherical roller bearings for vibratory applications

d 180 - 240 mm
d 7.087 - 9.449 in

Principal dimensions						Basic load ratings		Fatigue load limit	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic C	static C ₀	P _u	Refer- ence speed	Limiting speed		Bearing with cylindrical bore	tapered bore
mm			in			kN		kN	r/min		kg	–	
180	380	126	7.087	14.961	4.961	2 000	2 450	193	1 300	1 700	71.5	*22336 CCJA/W33VA405	*22336 CCKJA/W33VA405
	380	126		14.961	4.961	2 000	2 450	193	1 300	1 700	71.5	*22336 CCJA/W33VA406	–
190	400	132	7.480	15.748	5.197	2 120	2 650	208	1 200	1 600	82.5	*22338 CCJA/W33VA405	*22338 CCKJA/W33VA405
	400	132		15.748	5.197	2 120	2 650	208	1 200	1 600	82.5	*22338 CCJA/W33VA406	–
200	420	138	7.874	16.535	5.433	2 320	2 900	224	1 200	1 500	95	*22340 CCJA/W33VA405	*22340 CCKJA/W33VA405
	420	138		16.535	5.433	2 320	2 900	224	1 200	1 500	95	*22340 CCJA/W33VA406	–
220	460	145	8.661	18.110	5.709	2 700	3 450	260	1 000	1 400	120	*22344 CCJA/W33VA405	*22344 CCKJA/W33VA405
240	500	155	9.449	19.685	6.102	3 100	4 000	290	950	1 300	155	*22348 CCJA/W33VA405	*22348 CCKJA/W33VA405



* SKF Explorer bearing

Spherical roller bearings

Shaker Screen

Series: 452308 M2/W502 — 452340 M2/W502

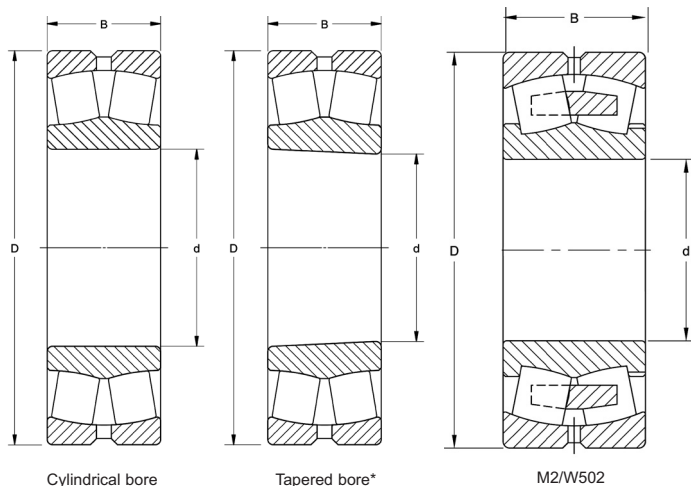
Size: 40 mm — 200 mm

1.5748 in — 7.8740 in

Series: 453315 M2/W502 — 453332 M2/W502

Size: 75 mm — 160 mm

2.9528 in — 6.2992 in



Designation	Principal Dimensions						Basic Load Ratings				Speed Rating		Mass		Calculation Factors		
	Bore		Outside Diameter		Width		Dynamic		Static		Lubrication		kg	lb	e	Y ₁	Y ₂
	d	D	B	C	C ₀	Grease	Oil	kN	lbf	r/min	r/min						
mm	in	mm	in	mm	in	kN	lbf	kN	lbf	r/min	r/min	kg	lb	-	-	-	
452308 M2/W502	40	1.5748	90	3.5433	33	1.2992	107	24 000	112	25 200	4 500	5 600	1.00	2.20	0.37	1.8	2.7
452309 M2/W502	45	1.7717	100	3.9370	36	1.4173	133	29 900	150	33 700	3 800	4 800	1.35	3.00	0.37	1.8	2.7
452310 M2/W502	50	1.9685	110	4.3307	40	1.5748	168	37 800	186	41 800	3 400	4 300	1.85	4.10	0.37	1.8	2.7
452311 M2/W502	55	2.1654	120	4.7244	43	1.6929	199	44 700	232	52 100	3 200	4 000	2.35	5.20	0.35	1.9	2.9
452312 M2/W502	60	2.3622	130	5.1181	46	1.8110	235	52 800	280	62 900	2 800	3 000	2.95	6.50	0.35	1.9	2.9
452313 M2/W502	65	2.5591	140	5.5118	48	1.8898	258	58 000	305	68 500	2 600	3 400	3.55	7.85	0.35	1.9	2.9
452314 M2/W502	70	2.7559	150	5.9055	51	2.0079	299	67 200	360	80 900	2 400	3 200	4.30	9.50	0.35	1.9	2.9
452315 M2/W502	75	2.9528	160	6.2992	55	2.1645	328	73 700	405	91 000	2 200	3 000	5.20	11.5	0.35	1.9	2.9
452316 M2/W502	80	3.1496	170	6.6929	58	2.2835	374	84 000	465	105 000	2 000	2 800	6.10	13.50	0.35	1.9	2.9
452317 M2/W502	85	3.3465	180	7.0866	60	2.3622	408	91 700	490	110 000	1 900	2 600	7.25	16.00	0.33	2.0	3.0
452318 M2/W502	90	3.5433	190	7.4803	64	2.5197	460	103 000	570	128 000	1 800	2 400	8.60	19.00	0.35	1.9	2.9
452319 M2/W502	95	3.7402	200	7.8740	67	2.6378	518	116 000	670	151 000	1 800	2 400	10.00	22.00	0.35	1.9	2.9
452320 M2/W502	100	3.9370	215	8.4646	73	2.8740	610	137 000	800	180 000	1 700	2 200	13.00	28.50	0.35	1.9	2.9
452322 M2/W502	110	4.3307	240	9.4488	80	3.1496	725	163 000	965	217 000	1 600	2 000	18.00	40.00	0.35	1.9	2.9
452324 M2/W502	120	4.7244	260	10.2362	86	3.3858	845	190 000	1 140	256 000	1 400	1 800	22.00	48.50	0.35	1.9	2.9
452326 M2/W502	130	5.1181	280	11.0236	93	3.6614	978	220 000	1 320	297 000	1 300	1 700	28.50	63.00	0.35	1.9	2.9
452328 M2/W502	140	5.5118	300	11.8110	102	4.0157	1 130	254 000	1 560	351 000	1 100	1 500	34.50	76.00	0.35	1.9	2.9
452330 M2/W502	150	5.9055	320	12.5984	108	4.2520	1 290	290 000	1 800	404 000	1 000	1 400	41.50	91.50	0.35	1.9	2.9
452332 M2/W502	160	6.2292	340	13.3858	114	4.4882	1 400	315 000	1 960	440 000	950	1 300	50.00	110.00	0.35	1.9	2.9
452336 M2/W502	180	7.0866	380	14.9606	126	4.9606	1 640	369 000	2 400	540 000	900	1 200	68.00	150.00	0.35	1.9	2.9
452338 M2/W502	190	7.4803	400	15.7480	132	5.1968	1 870	421 000	1 560	351 000	850	1 100	79.50	175.00	0.35	1.9	2.9
452340 M2/W502	200	7.8740	420	16.5354	138	5.4331	2 020	454 000	2 900	652 000	850	1 100	93.00	205.00	0.33	2.0	3.0

* tapered (K) bore available on limited sizes.

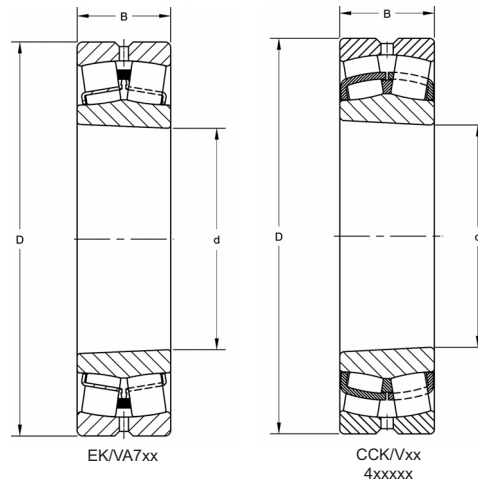
Spherical roller bearings

Printing Press

Series: 22209 CCK/VA759 — 23226 VAD

Size: 45.000 mm — 130.000 mm

1.7717 in — 5.1181 in



Please contact SKF Application Engineering for tapered journal (X drawings) details.

Designation		Principal Dimensions						Basic Load Ratings				Mass		Calculation Factors		
Current	Basic/ Replaced Design	Bore		Outside Diameter		Width		Dynamic		Static		kg	lb	e	Y ₁	Y ₂
		d	in	D	in	B	in	C	N	N	lbf					
22209 CCK/VA759	22209 CCK/W33	45.000	1.7717	85	3.3465	23.0	0.9055	138 000	31 000	160 000	31 100	1.35	3.00	0.26	2.6	3.9
22211 EK/VA751	22211 VAE	55.000	2.1654	100	3.9370	25.0	0.9843	99 500	22 400	118 000	26 500	0.82	1.80	0.24	2.8	4.2
22212 EK/VA751	22212 VAD	60.000	2.3622	110	4.3307	28.0	1.1024	122 000	27 000	146 000	32 800	1.10	2.45	0.24	2.8	4.2
22212 EK/VA7582†	22212 EK/VA751	60.000	2.3622	110	4.3307	28.0	1.1024	122 000	27 000	146 000	32 800	1.10	2.45	0.24	2.8	4.2
22220 VAE	22220 CCK/W33	100.000	3.9370	180	7.0866	46.0	1.8110	311 000	70 000	415 000	93 300	4.85	10.50	0.24	2.8	4.2
22220 VAM†	22220 VAE	100.000	3.9370	180	7.0866	46.0	1.8110	311 000	70 000	415 000	93 300	4.85	10.50	0.24	2.8	4.2
22230 VAB	22230 CCK/W33	150.000	5.9055	270	10.6299	73.0	2.8740	736 000	166 000	1 080 000	243 000	18.00	39.50	0.26	2.6	3.9
22309 EK/VA751	450918	45.000	1.7717	100	3.9370	36.0	1.4173	138 000	31 000	160 000	31 100	1.35	3.00	0.37	1.8	2.7
22310 EK/VA751	467964	50.000	1.9685	110	4.3307	40.0	1.5748	176 000	39 600	200 000	45 000	1.85	4.10	0.37	1.8	2.7
22311 EK/VA751	22311 VAE	55.000	2.1654	120	4.7244	43.0	1.6929	199 000	44 800	232 000	52 200	2.35	5.20	0.35	1.9	2.9
22312 EK/VA751	467000	60.000	2.3622	130	5.1181	46.0	1.8110	235 000	52 900	280 000	63 000	2.95	6.50	0.35	1.9	2.9
22312 EK/VA7582†	22312 EK/VA7583††	60.000	2.3622	130	5.1181	46.0	1.8110	235 000	52 900	280 000	63 000	2.95	6.50	0.35	1.9	2.9
22312 EK/VA7583††	22312 EK/VA751	60.000	2.3622	130	5.1181	46.0	1.8110	235 000	52 900	280 000	63 000	2.95	6.50	0.35	1.9	2.9
22313 VAC	22313 CCK/W33	65.000	2.5591	140	5.5118	48.0	1.8898	253 000	56 900	300 000	67 400	3.55	7.85	0.35	1.9	2.9
22315 CCK/VA755	22315 CCK/W33	75.000	2.9528	160	6.2992	55.0	2.1654	345 000	77 600	430 000	96 700	5.25	11.50	0.35	1.9	2.9
22315 VAE††	466915	75.000	2.9528	160	6.2992	55.0	2.1654	345 000	77 600	430 000	96 700	5.25	11.50	0.35	1.9	2.9
22315 VAH†	22315 VAE††	75.000	2.9528	160	6.2992	55.0	2.1654	345 000	77 600	430 000	96 700	5.25	11.50	0.35	1.9	2.9
22319 VAC	22319 CCK/W33	95.000	3.7402	200	7.8740	67.0	2.6378	518 000	117 000	670 000	151 000	10.00	22.00	0.35	1.9	2.9
23122 VAF	23122 CCK/W33	110.000	4.3307	180	7.0866	56.0	2.2047	374 000	84 000	585 000	132 000	5.45	12.00	0.30	2.3	3.4
23124 VAA	23124 CCK/W33	120.000	4.7244	200	7.7840	62.0	2.4409	437 000	98 300	695 000	156 000	7.80	17.00	0.28	2.4	3.6
23130 VAA**	23130 CCK/W33	151.333	5.9579	250	9.8425	80.0	3.1496	725 000	163 000	1 200 000	270 000	16.00	35.50	0.30	2.3	3.4
23220 VAA	23220 CCK/W33	100.000	3.9370	180	7.0866	60.3	2.3470	414 000	93 200	600 000	135 000	6.70	15.00	0.33	2.0	3.0
ECB 23220 VAA	EVB 23220 VAA	100.000	3.9370	180	7.0866	60.3	2.3470	414 000	93 200	600 000	135 000	6.70	15.00	0.33	2.0	3.0
23222 CCK/VA756	23222 CCK/W33	110.000	4.3307	200	7.8740	69.8	2.7480	518 000	117 000	765 000	172 000	9.70	21.50	0.33	2.0	3.0
23226 VAD	23226 CCK/W33	130.000	5.1181	230	9.0551	80.0	3.1496	690 000	155 000	1 060 000	238 000	14.00	31.00	0.33	2.0	3.0

* special bore size

** controlled inner ring width

† coater roll bearing w/ .000050 runout max

†† coater roll bearing w/ .000075 runout max.

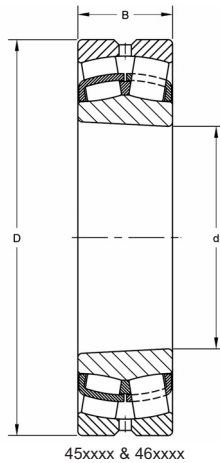
Spherical roller bearings

Printing Press

Series: 453538 — 468772

Size: 50.000 mm — 130.000 mm

1.9685 in — 5.1181 in



Please contact SKF Application Engineering for tapered journal (X drawings) details.

Designation		Principal Dimensions						Basic Load Ratings				Mass		Calculation Factors		
Current	Basic/ Replaced Design	Bore		Outside Diameter		Width		Dynamic		Static		kg	lb	e	Y ₁	Y ₂
		d		D		B		C		C ₀						
		mm	in	mm	in	mm	in	N	lbf	N	lbf			-	-	-
453538	22210 CCK/W33	50.000	1.9685	90	3.5433	23.0	.9055	84 500	19 000	100 000	22 500	0.60	1.30	0.24	2.8	4.2
454548	23126 CCK/W33	130.000	5.1181	210	8.2677	64.0	2.5197	489 000	110 000	780 000	175 000	8.55	19.00	0.28	2.4	3.6
458681	22217 CCK/W33	85.000	3.3465	150	5.9055	36.0	1.4173	210 000	47 200	270 000	60 700	2.55	5.60	0.22	3.0	4.6
465123	22216 CCK/W33	80.000	3.1496	140	5.5118	33.0	1.2992	176 000	39 600	228 000	51 300	2.05	4.50	0.22	3.0	4.6
466144	23122 CCK/W33	110.000	4.3307	180	7.0866	56.0	2.2047	374 000	84 000	585 000	132 000	5.45	12.00	0.30	2.3	3.4
466144 A**	23122 CCK/W33	110.000	4.3307	180	7.0866	56.0	2.2047	374 000	84 000	585 000	132 000	5.45	12.00	0.30	2.3	3.4
466619	22240 CCK/W33*	199.882	7.8694	360	14.1732	98.0	3.8583	1 270 000	286 000	1 930 000	434 000	43.50	96.00	0.26	2.6	3.9
466619 A**	22240 CCK/W33*	199.882	7.8694	360	14.1732	98.0	3.8583	1 270 000	286 000	1 930 000	434 000	43.50	96.00	0.26	2.6	3.9
466645	I 112605 CAC/W33	129.888	5.1137	225	8.8583	76.0	2.9921	633 000	142 000	1 010 000	227 000	13.00	28.50	0.31	2.2	3.3
466713	23230 CCK/W33	150.000	5.9055	270	10.6299	96.0	3.7795	937 000	211 000	1 460 000	328 000	24.00	53.00	0.35	1.9	2.9
466713 A**	23230 CCK/W33	150.000	5.9055	270	10.6299	96.0	3.7795	937 000	211 300	1 460 000	328 000	24.00	53.00	0.35	1.9	2.9
466815	23224 CCK/W33	120.000	4.7244	215	8.4646	76.0	2.9921	610 000	137 000	930 000	209 000	12.00	26.50	0.35	1.9	2.9
466816	23226 CCK/W33	130.000	5.1181	230	9.0551	80.0	3.1496	690 000	155 000	1 060 000	238 000	14.00	31.00	0.33	2.0	3.0
466817	23228 CCK/W33	140.000	5.5118	250	9.8425	88.0	3.4646	799 000	180 000	1 250 000	281 000	18.50	41.00	0.33	2.0	3.0
466817 A**	23228 CCK/W33	140.000	5.5118	250	9.8425	88.0	3.4646	799 000	180 000	1 250 000	281 000	18.50	41.00	0.33	2.0	3.0
466915	22315 CCK/W33	75.000	2.9528	160	6.2992	55.0	2.1654	345 000	77 600	430 000	96 700	5.25	11.50	0.35	1.9	2.9
467304	22314 CCK/W33	70.000	2.7559	150	5.9055	51.0	2.0079	311 000	70 000	380 000	85 400	4.30	9.50	0.35	1.9	2.9
467311	22316 CCK/W33	80.000	3.1496	170	6.6929	58.0	2.2835	374 000	84 200	455 000	102 000	6.20	13.50	0.35	1.9	2.9
467311 A**	22316 CCK/W33	80.000	3.1496	170	6.6929	58.0	2.2835	374 000	84 200	455 000	102 000	6.20	13.50	0.35	1.9	2.9
467315	22317 CCK/W33	85.000	3.3465	180	7.0866	60.0	2.3622	420 000	94 500	520 000	117 000	7.25	16.00	0.33	2.0	3.0
467315 A**	22317 CCK/W33	85.000	3.3465	180	7.0866	60.0	2.3622	420 000	94 500	520 000	117 000	7.25	16.00	0.33	2.0	3.0
467350	23148 CCK/W33	240.000	9.4488	400	15.7480	128.0	5.0394	1 790 000	403 000	3 200 000	719 000	65.50	145.00	0.30	2.3	3.4
467350 A**	23148 CCK/W33	240.000	9.4488	400	15.7480	128.0	5.0394	1 790 000	403 000	3 200 000	719 000	65.50	145.00	0.30	2.3	3.4
467418	22218 CCK/W33	90.000	3.5433	160	6.2992	40.0	1.5748	253 000	56 900	340 000	76 400	3.25	7.15	0.23	2.9	4.4
468043	23222 CCK/W33	110.000	4.3307	200	7.8740	69.8	2.7480	518 000	117 000	765 000	172 000	9.70	21.50	0.33	2.0	3.0
468043 A**	23222 CCK/W33	110.000	4.3307	200	7.8740	69.8	2.7480	518 000	117 000	765 000	172 000	9.70	21.50	0.33	2.0	3.0
468324	23132 CCK/W33	160.000	6.2992	270	10.6299	86.0	3.3858	845 000	190 000	1 370 000	308 000	20.50	45.00	0.30	2.3	3.4
468603	22222 CCK/W33	110.000	4.3307	200	7.8740	53.0	2.0866	408 000	91 800	560 000	126 000	7.00	15.50	0.25	2.7	4.0
468699	23156 CAK/W33	280.000	11.0236	460	18.1102	146.0	5.7480	2 300 000	518 000	4 250 000	955 000	97.00	215.00	0.30	2.3	3.4
468772	22226 CCK/W33	130.000	5.1181	230	9.0551	64.0	2.5197	546 000	123 000	800 000	180 000	11.00	24.50	0.26	2.6	3.9

* special bore size

** controlled inner ring width

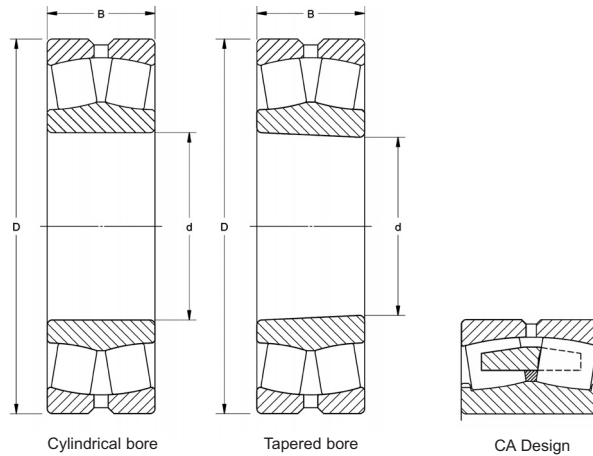
Spherical roller bearings

Special Bearings

Series: I-26310 CAM2/W33 — ECBI-112630 CAC/W33

Size: 200 mm — 350 mm

7.8740 in — 13.7795 in



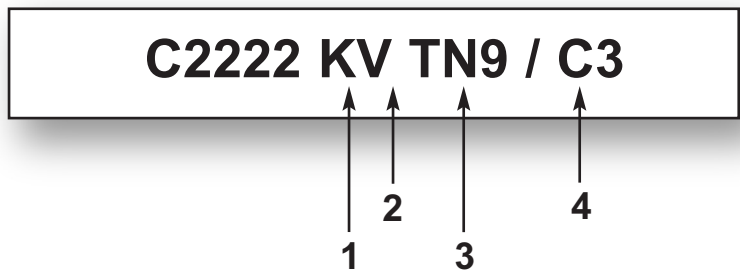
Designation	Principal Dimensions						Basic Load Ratings				Speed Rating		Mass		Calculation Factors		
	Bore		Outside Diameter		Width		Dynamic		Static		Lubrication		kg	lb	e	Y ₁	Y ₂
	d	D	D	D	B	B	C	C ₀	C ₀	C ₀	Grease	Oil					
mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min			-	-	-	
I-26310 CAM2/W33*	200	7.8740	380	14.9606	126	4.9606	1 730 000	390 000	2 700 000	610 000	750	950	68.00	150.00	0.33	2.0	3.0
I-26311 CAM2/W33*	220	8.6614	420	16.5354	138	5.4331	2 070 000	465 000	3 200 000	720 000	670	850	90.50	200.00	0.33	2.0	3.0
I-28809 CAM2/W33*	190	7.4803	280	11.0236	67	2.6378	644 000	145 000	1 140 000	256 000	1 700	2 200	15.00	33.00	0.21	3.2	4.8
I-28814 CAM2/W33*	240	9.4488	350	13.7795	83	3.2677	978 000	220 000	1 830 000	411 000	850	1 100	27.50	60.50	0.21	3.2	4.8
I-28821 CACM2/W33*	310	12.2047	455	17.9134	109	4.2913	1 680 000	378 000	3 250 000	730 000	630	800	66.00	145.00	0.21	3.2	4.8
I-37611 CAM2/W33**	220	8.6614	420	16.5354	138	5.4331	2 070 000	465 000	3 200 000	720 000	670	850	90.50	200.00	0.33	2.0	3.0
I-37617 CA/W33**	340	13.3858	640	25.1969	190	7.4803	4 080 000	920 000	6 550 000	1 500 000	480	600	150.00	640.00	0.30	2.3	3.4
I-112618 CA/W33**	250	9.8425	410	16.1417	128	5.0394	1 760 000	400 000	3 100 000	700 000	630	800	68.00	150.00	0.30	2.3	3.4
ECBI-112630 CAC/W33**350	350	13.7795	590	23.2283	192	7.5591	3 740 000	840 500	6 800 000	1 530 000	430	530	220.00	485.00	0.30	2.3	3.4

* cylindrical bore
** tapered bore



CARB[®]

Compact Aligning Roller Bearings



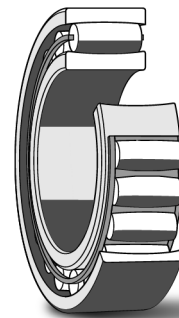
1. Variations	4. Clearance & Features
K Bearing with 1:12 tapered bore	C2 Radial internal clearance < normal
K30 Bearing with 1:30 tapered bore	C0 Normal internal clearance no symbol
2. Internal Design	C3 Radial internal clearance > normal
V Full complement bearing (no cage)	C4 Radial internal clearance > C3
3. Cage Designs	HA3 Case hardened inner ring
M Machined brass cage, roller centred	HA4 Case hardened inner and outer rings and rollers
MB Machined brass cage, inner ring centred	VE240 Bearing modified for greater axial displacement
TN9 Fibreglass reinforced Polyamide	2CS5 Hydrogenated Acrylonitrile rubber (HNBR) seals on both sides filled with Polyurea high temperature grease with 70-100% fill
No symbol Window-type sheet steel cage	

CARB® compact aligning roller bearings

Technical Features

Boundary Dimensions	In accordance with ISO-1998
Tolerances	In accordance with ISO 492-2002 SKF CARB® bearings up to 315 mm bore diameter are produced to higher precision than ISO normal tolerances, the width tolerance is considerably tighter* than the ISO normal tolerance. The running accuracy is to tolerance class P5 as standard. For larger bearings, P5 tolerances are also available with the suffix C08 or closer tolerances are available with the suffix VQ 424
Heat stabilization	392°F (200°C)
Misalignment	0.5 degrees between the inner and outer rings
Cage material	Standard Window type sheet steel Optional TN9 (Fibreglass reinforced Polyamide). M (Brass)
Axial load - max	none
Seals	2CS5 2- Hydrogenated acrylonitrile butadiene rubber with hi-temp grease with 70-100% fill

* See page 784 of 6000 catalogue.

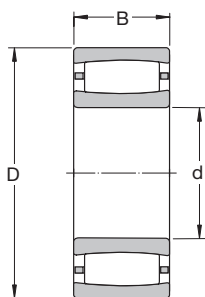


CARB® Bearing
(data tables on page 186)

CARB® toroidal roller bearings

d 25 - 65 mm

d 0.984 - 2.559 in



Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic C	static C ₀		Refer- ence speed	Limiting speed		Bearing with cylindrical bore	tapered bore
mm			in			kN		kN	r/min		kg	–	
25	52	18	0.984	2.047	0.709	44	40	4.55	13 000	18 000	0.17	*C 2205 TN9 ¹⁾	*C 2205 KTN9 ¹⁾
	52	18		2.047	0.709	50	48	5.5	–	7 000	0.18	*C 2205 V ¹⁾	*C 2205 KV ¹⁾
30	55	45	1.181	2.165	1.772	134	180	19.6	–	3 000	0.5	*C 6006 V	–
	62	20		2.441	0.787	69.5	62	7.2	11 000	15 000	0.27	*C 2206 TN9	*C 2206 KTN9
	62	20		2.441	0.787	76.5	71	8.3	–	6 000	0.29	*C 2206 V	*C 2206 KV
35	72	23	1.378	2.835	0.906	83	80	9.3	9 500	13 000	0.43	*C 2207 TN9	*C 2207 KTN9
	72	23		2.835	0.906	96.5	96	11.2	–	5 000	0.45	*C 2207 V	*C 2207 KV
40	62	22	1.575	2.441	0.866	76.5	100	11	–	4 300	0.25	*C 4908 V	*C 4908 K30V
	62	30		2.441	1.181	104	143	16	–	3 400	0.35	*C 5908 V ¹⁾	–
	62	40		2.441	1.575	122	180	19.3	–	2 800	0.47	*C 6908 V ¹⁾	–
	80	23		3.150	0.906	90	86.5	10.2	8 000	11 000	0.5	*C 2208 TN9	*C 2208 KTN9
	80	23		3.150	0.906	102	104	12	–	4 500	0.53	*C 2208 V	*C 2208 KV
45	68	22	1.772	2.677	0.866	81.5	112	12.9	–	3 800	0.3	*C 4909 V ¹⁾	*C 4909 K30V ¹⁾
	68	30		2.677	1.181	110	163	18.3	–	3 200	0.41	*C 5909 V ¹⁾	–
	68	40		2.677	1.575	132	200	22	–	2 600	0.55	*C 6909 V ¹⁾	–
	85	23		3.346	0.906	93	93	10.8	8 000	11 000	0.55	*C 2209 TN9	*C 2209 KTN9
	85	23		3.346	0.906	106	110	12.9	–	4 300	0.58	*C 2209 V	*C 2209 KV
50	72	22	1.969	2.835	0.866	86.5	125	13.7	–	3 600	0.29	*C 4910 V	*C 4910 K30V
	72	30		2.835	1.181	118	180	20.4	–	2 800	0.42	*C 5910 V ¹⁾	–
	72	40		2.835	1.575	140	224	24.5	–	2 200	0.54	*C 6910 V	–
	80	30		3.150	1.181	116	140	16	5 000	7 500	0.55	*C 4010 TN9	*C 4010 K30TN9
	80	30		3.150	1.181	137	176	20	–	3 000	0.59	*C 4010 V	*C 4010 K30V
	90	23		3.543	0.906	98	100	11.8	7 000	9 500	0.59	*C 2210 TN9	*C 2210 KTN9
55	80	25	2.165	3.150	0.984	106	153	18	–	3 200	0.43	*C 4911 V ¹⁾	*C 4911 K30V ¹⁾
	80	34		3.150	1.339	143	224	25	–	2 600	0.6	*C 5911 V ¹⁾	–
	80	45		3.150	1.772	180	300	32.5	–	2 000	0.81	*C 6911 V ¹⁾	–
	100	25		3.937	0.984	116	114	13.4	6 700	9 000	0.79	*C 2211 TN9	*C 2211 KTN9
	100	25		3.937	0.984	132	134	16	–	3 400	0.81	*C 2211 V	*C 2211 KV
60	85	25	2.362	3.346	0.984	112	170	19.6	–	3 000	0.46	*C 4912 V ¹⁾	*C 4912 K30V ¹⁾
	85	34		3.346	1.339	150	240	26.5	–	2 400	0.64	*C 5912 V ¹⁾	–
	85	45		3.346	1.772	190	335	36	–	1 900	0.84	*C 6912 V	–
	110	28		4.331	1.102	143	156	18.3	5 600	7 500	1.1	*C 2212 TN9	*C 2212 KTN9
	110	28		4.331	1.102	166	190	22.4	–	2 800	1.15	*C 2212 V	*C 2212 KV
65	90	25	2.559	3.543	0.984	116	180	20.8	–	2 800	0.5	*C 4913 V ¹⁾	*C 4913 K30V ¹⁾
	90	34		3.543	1.339	156	260	30	–	2 200	0.7	*C 5913 V ¹⁾	–
	90	45		3.543	1.772	196	355	38	–	1 800	0.93	*C 6913 V ¹⁾	–
	100	35		3.937	1.378	196	275	32	–	2 400	1	*C 4013 V ¹⁾	*C 4013 K30V ¹⁾
	120	31		4.724	1.220	180	180	21.2	5 300	7 500	1.4	*C 2213 TN9	*C 2213 KTN9
	120	31		4.724	1.220	204	216	25.5	–	2 400	1.47	*C 2213 V	*C 2213 KV

* SKF Explorer bearing

¹⁾ Please check availability of the bearing before incorporating it in a bearing arrangement design

CARB® toroidal roller bearings

d 70 - 100 mm
d 2.756 - 3.937 in

Principal dimensions						Basic load ratings		Fatigue load limit	Speed ratings		Mass	Designations		
d	D	B	d	D	B	dynamic C	static C ₀	P _u	Reference speed	Limiting speed		Bearing with cylindrical bore	tapered bore	
mm			in			kN		kN	r/min		kg	–		
70	100	30	2.756	3.937	1.181	163	240	28	–	2 600	0.78	*C 4914 V ¹⁾	*C 4914 K30V ¹⁾	
	100	40		3.937	1.575	196	310	34.5	–	2 000	1	*C 5914 V ¹⁾	–	
	100	54		3.937	2.126	265	455	49	–	1 700	1.4	*C 6914 V ¹⁾	–	
	125	31		4.921	1.220	186	196	23.2	5 000	7 000	1.45	*C 2214 TN9	*C 2214 KTN9	
	125	31		4.921	1.220	212	228	27	–	2 400	1.5	*C 2214 V	*C 2214 KV	
150	51	5.906	2.008	405	430	49	–	3 800	5 000	4.25	*C 2314	*C 2314 K		
75	105	30	2.953	4.134	1.181	166	255	30	–	2 400	0.82	*C 4915 V ¹⁾	*C 4915 K30V ¹⁾	
	105	40		4.134	1.575	204	325	37.5	–	1 900	1.1	*C 5915 V	–	
	105	54		4.134	2.126	204	325	37.5	–	1 600	1.4	*C 6915 V/VE240	–	
	115	40		4.528	1.575	236	345	40	–	2 000	1.5	*C 4015 V ¹⁾	*C 4015 K30V ¹⁾	
	130	31		5.118	1.220	196	208	25.5	4 800	6 700	1.6	*C 2215	*C 2215 K	
	130	31		5.118	1.220	220	240	29	–	2 200	1.65	*C 2215 V	*C 2215 KV	
160	55	6.299	2.165	425	465	52	–	3 600	4 800	5.2	*C 2315	*C 2315 K		
80	110	30	3.150	4.331	1.181	173	275	31.5	–	2 200	0.87	*C 4916 V ¹⁾	*C 4916 K30V ¹⁾	
	110	40		4.331	1.575	208	345	40	–	1 800	1.2	*C 5916 V ¹⁾	–	
	140	33		5.512	1.299	220	250	28.5	4 500	6 000	2	*C 2216	*C 2216 K	
	140	33		5.512	1.299	255	305	34.5	–	2 000	2.1	*C 2216 V	*C 2216 KV	
	170	58		6.693	2.283	510	550	61	–	3 400	4 500	6.2	*C 2316	*C 2316 K
85	120	35	3.346	4.724	1.378	224	355	40.5	–	2 000	1.3	*C 4917 V ¹⁾	*C 4917 K30V ¹⁾	
	120	46		4.724	1.811	275	465	52	–	1 700	1.7	*C 5917 V ¹⁾	–	
	150	36		5.906	1.417	275	320	36.5	4 300	5 600	2.6	*C 2217	*C 2217 K	
	150	36		5.906	1.417	315	390	44	–	1 800	2.8	*C 2217 V	*C 2217 KV	
	180	60		7.087	2.362	540	600	64	–	3 200	4 300	7.3	*C 2317	*C 2317 K
90	125	35	3.543	4.921	1.378	186	315	35.5	–	2 000	1.3	*C 4918 V ¹⁾	*C 4918 K30V ¹⁾	
	125	46		4.921	1.811	224	400	44	–	1 600	1.75	*C 5918 V	–	
	150	72		5.906	2.835	455	670	73.5	–	1 500	5.1	*BSC-2039 V	–	
	160	40		6.299	1.575	325	380	42.5	3 800	5 300	3.3	*C 2218	*C 2218 K	
	160	40		6.299	1.575	365	440	49	–	1 500	3.4	*C 2218 V	*C 2218 KV	
	190	64		7.480	2.520	610	695	73.5	–	2 800	4 000	8.5	*C 2318	*C 2318 K
95	170	43	3.740	6.693	1.693	360	400	44	3 800	5 000	4	*C 2219 ¹⁾	*C 2219 K ¹⁾	
	200	67		7.874	2.638	610	695	73.5	2 800	4 000	10	*C 2319	*C 2319 K	
100	140	40	3.937	5.512	1.575	275	450	49	–	1 700	1.9	*C 4920 V ¹⁾	*C 4920 K30V ¹⁾	
	140	54		5.512	2.126	375	640	68	–	1 400	2.7	*C 5920 V ¹⁾	–	
	150	50		5.906	1.969	355	530	57	–	1 400	3.05	*C 4020 V	*C 4020 K30V	
	150	67		5.906	2.638	510	865	90	–	1 100	4.3	*C 5020 V	–	
	165	52		6.496	2.047	415	540	58.5	3 200	4 300	4.4	*C 3120 ¹⁾	*C 3120 K ¹⁾	
	165	52		6.496	2.047	475	655	69.5	–	1 300	4.4	*C 3120 V	–	
	165	65		6.496	2.559	475	655	69.5	–	1 300	5.25	*C 4120 V/VE240	*C 4120 K30V/VE240	
	170	65		6.693	2.559	475	655	47.5	–	1 400	5.95	*B SC-2034 V	–	
	215	73		8.465	2.874	800	880	91.5	–	2 600	3 600	12.5	*C 2320	*C 2320 K

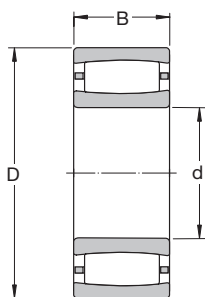
* SKF Explorer bearing

¹⁾ Please check availability of the bearing before incorporating it in a bearing arrangement design

CARB® toroidal roller bearings

d 110 - 180 mm

d 4.331 - 7.087 in



Principal dimensions						Basic load ratings		Fatigue load limit	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic C	static C ₀	P _u	Refer-ence speed	Limiting speed	kg	Bearing with cylindrical bore	tapered bore
mm			in			kN		kN	r/min			–	
110	170	45	4.331	6.693	1.772	355	480	51	3 200	4 500	3.5	*C 3022 ¹⁾	*C 3022 K ¹⁾
	170	60		6.693	2.362	500	800	83	–	1 200	5.15	*C 4022 V	*C 4022 K30V
	180	69		7.087	2.717	670	1 000	102	–	900	7.05	*C 4122 V	*C 4122 K30V
	200	53		7.874	2.087	530	620	64	3 200	4 300	6.9	*C 2222	*C 2222 K
120	180	46	4.724	7.087	1.811	375	530	55	3 000	4 000	3.9	*C 3024	*C 3024 K
	180	46		7.087	1.811	430	640	67	–	1 400	4.05	*C 3024 V	*C 3024 KV
	180	60		7.087	2.362	530	880	90	–	1 100	5.5	*C 4024 V	*C 4024 K30V
	200	80		7.874	3.150	780	1 120	114	–	750	10.5	*C 4124 V ¹⁾	*C 4124 K30V ¹⁾
	215	58		8.465	2.283	610	710	72	3 000	4 000	8.6	*C 2224 ¹⁾	*C 2224 K ¹⁾
	215	76		8.465	2.992	750	980	98	2 400	3 200	11.5	*C 3224	*C 3224 K
130	200	52	5.118	7.874	2.047	390	585	58.5	2 800	3 800	5.9	*C 3026 ¹⁾	*C 3026 K ¹⁾
	200	69		7.874	2.717	620	930	91.5	1 900	2 800	7.84	*C 4026	*C 4026 K30
	200	69		7.874	2.717	720	1 120	112	–	850	8.05	*C 4026 V	*C 4026 K30V
	210	80		8.268	3.150	750	1 100	108	–	670	10.5	*C 4126 V/VE240	*C 4126 K30V/VE240
	230	64		9.055	2.520	735	930	93	2 800	3 800	11	*C 2226	*C 2226 K
140	210	53	5.512	8.268	2.087	490	735	72	2 600	3 400	6.3	*C 3028 ¹⁾	*C 3028 K ¹⁾
	210	69		8.268	2.717	750	1 220	118	–	800	8.55	*C 4028 V	*C 4028 K30V
	225	85		8.858	3.346	1 000	1 600	153	–	630	14.2	*C 4128 V	*C 4128 K30V
	250	68		9.843	2.677	830	1 060	102	2 400	3 400	13.8	*C 2228	*C 2228 K
150	225	56	5.906	8.858	2.205	540	850	83	2 400	3 200	8.3	*C 3030 MB	*C 3030 KMB
	225	75		8.858	2.953	780	1 320	125	–	750	10.5	*C 4030 V	*C 4030 K30V
	250	80		9.843	3.150	880	1 290	122	2 000	2 800	15	*C 3130	*C 3130 K
	250	100		9.843	3.937	1 220	1 860	173	–	450	20.5	*C 4130 V ¹⁾	*C 4130 K30V ¹⁾
	270	73		10.630	2.874	980	1 220	116	2 400	3 200	17.5	*C 2230	*C 2230 K
160	240	60	6.299	9.449	2.362	600	990	93	2 200	3 000	9.6	*C 3032 ¹⁾	*C 3032 K ¹⁾
	240	80		9.449	3.150	795	1 160	110	1 600	2 400	12.3	*C 4032	*C 4032 K30
	240	80		9.449	3.150	915	1 460	140	–	600	12.6	*C 4032 V	*C 4032 K30V
	270	86		10.630	3.386	1 000	1 400	132	2 000	2 600	20	*C 3132 ¹⁾	*C 3132 K ¹⁾
	270	109		10.630	4.291	1 460	2 160	200	–	300	26	*C 4132 V ¹⁾	*C 4132 K30V ¹⁾
	290	104		11.417	4.094	1 370	1 830	170	1 700	2 400	28.5	*C 3232	*C 3232 K
	290	104		11.417	4.094	1 370	1 830	170	1 700	2 400	28.5	*C 3232	*C 3232 K
170	260	67	6.693	10.236	2.638	750	1 160	108	2 000	2 800	12.5	*C 3034 ¹⁾	*C 3034 K ¹⁾
	260	90		10.236	3.543	1 140	1 860	170	–	480	17.5	*C 4034 V	*C 4034 K30V
	280	88		11.024	3.465	1 040	1 460	137	1 900	2 600	21	*C 3134 ¹⁾	*C 3134 K ¹⁾
	280	109		11.024	4.291	1 530	2 280	208	–	280	27	*C 4134 V ¹⁾	*C 4134 K30V ¹⁾
	310	86		12.205	3.386	1 270	1 630	150	2 000	2 600	28	*C 2234	*C 2234 K
180	280	74	7.087	11.024	2.913	880	1 340	125	1 900	2 600	16.5	*C 3036	*C 3036 K ²⁾
	280	100		11.024	3.937	1 320	2 120	193	–	430	23	*C 4036 V	*C 4036 K30V
	300	96		11.811	3.780	1 250	1 730	156	1 800	2 400	26	*C 3136	*C 3136 K ²⁾
	300	118		11.811	4.646	1 760	2 700	240	–	220	34.5	*C 4136 V ¹⁾	*C 4136 K30V ¹⁾
	320	112		12.598	4.409	1 530	2 200	196	1 500	2 000	37	*C 3236	*C 3236 K

* SKF Explorer bearing

¹⁾ Please check availability of the bearing before incorporating it in a bearing arrangement design

²⁾ Also available in design K/HA3C4

CARB® toroidal roller bearings

d 190 - 400 mm
d 7.480 - 15.748 in

Principal dimensions						Basic load ratings		Fatigue load limit	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic C	static C ₀	P _u	Refer-ence speed	Limiting speed		Bearing with cylindrical bore	tapered bore
mm			in			kN		kN	r/min		kg	–	
190	290	75	7.480	11.417	2.953	930	1 460	132	1 800	2 400	17.5	*C 3038	*C 3038 K ²⁾
	290	100		11.417	3.937	1 370	2 320	204	–	380	24.5	*C 4038 V ¹⁾	*C 4038 K30V ¹⁾
	320	104		12.598	4.094	1 530	2 200	196	1 600	2 200	33.5	*C 3138 ¹⁾	*C 3138 K ¹⁾
	320	128		12.598	5.039	2 040	3 150	275	–	130	43	*C 4138 V ¹⁾	*C 4138 K30V ¹⁾
	340	92		13.386	3.622	1 370	1 730	156	1 800	2 400	34	*C 2238	*C 2238 K ²⁾
200	310	82	7.874	12.205	3.228	1 120	1 730	153	1 700	2 400	22	*C 3040	*C 3040 K ²⁾
	310	109		12.205	4.291	1 630	2 650	232	–	260	30.5	*C 4040 V ¹⁾	*C 4040 K30V ¹⁾
	340	112		13.386	4.409	1 600	2 320	204	1 500	2 000	40	*C 3140	*C 3140 K ²⁾
	340	140		13.386	5.512	2 360	3 650	315	–	80	54	*C 4140 V ¹⁾	*C 4140 K30V ¹⁾
220	340	90	8.661	13.386	3.543	1 320	2 040	176	1 600	2 200	29	*C 3044	*C 3044 K ²⁾
	340	118		13.386	4.646	1 930	3 250	275	–	200	40	*C 4044 V ¹⁾	*C 4044 K30V ¹⁾
	370	120		14.567	4.724	1 900	2 900	245	1 400	1 900	51	*C 3144	*C 3144 K ²⁾
	400	108		15.748	4.252	2 000	2 500	216	1 500	2 000	56.5	*C 2244	*C 2244 K ²⁾
240	360	92	9.449	14.173	3.622	1 340	2 160	183	1 400	2 000	31.5	*C 3048	*C 3048 K ²⁾
	400	128		15.748	5.039	2 320	3 450	285	1 300	1 700	63	*C 3148	*C 3148 K ²⁾
260	400	104	10.236	15.748	4.094	1 760	2 850	232	1 300	1 800	46	*C 3052	*C 3052 K ²⁾
	440	144		17.323	5.669	2 650	4 050	325	1 100	1 500	87	*C 3152	*C 3152 K ²⁾
280	420	106	11.024	16.535	4.173	1 860	3 100	250	1 200	1 600	50	*C 3056	*C 3056 K ²⁾
	460	146		18.110	5.748	2 850	4 500	355	1 100	1 400	93	*C 3156	*C 3156 K ²⁾
300	460	118	11.811	18.110	4.646	2 160	3 750	290	1 100	1 500	71	*C 3060 M	*C 3060 KM
	460	160		18.110	6.299	2 900	4 900	380	850	1 200	95	*C 4060 M	*C 4060 K30M
	500	160		19.685	6.299	3 250	5 200	400	1 000	1 300	120	*C 3160	*C 3160 K ²⁾
320	480	121	12.598	18.898	4.764	2 280	4 000	310	1 000	1 400	76.5	*C 3064 M	*C 3064 KM
	540	176		21.260	6.929	4 150	6 300	480	950	1 300	160	*C 3164 M	*C 3164 KM
340	520	133	13.386	20.472	5.236	2 900	5 000	375	950	1 300	100	*C 3068 M	*C 3068 KM
	580	190		22.835	7.480	4 900	7 500	560	850	1 200	205	*C 3168 M	*C 3168 KM ²⁾
360	480	90	14.173	18.898	3.543	1 760	3 250	250	1 000	1 400	44	*C 3972 M	*C 3972 KM
	540	134		21.260	5.276	2 900	5 000	375	900	1 200	105	*C 3072 M	*C 3072 KM ²⁾
	600	192		23.622	7.559	5 000	8 000	585	800	1 100	215	*C 3172 M	*C 3172 KM ²⁾
380	520	106	14.961	20.472	4.173	2 120	4 000	300	950	1 300	65.5	*C 3976 MB ¹⁾	*C 3976 KMB ¹⁾
	560	135		22.047	5.315	3 000	5 200	390	900	1 200	110	*C 3076 M	*C 3076 KM
	620	194		24.409	7.638	4 550	7 500	540	750	1 000	230	*C 3176 MB ¹⁾	*C 3176 KMB ¹⁾
400	540	106	15.748	21.260	4.173	2 160	4 150	305	900	1 300	69	*C 3980 MB ¹⁾	*C 3980 KMB ¹⁾
	600	148		23.622	5.827	3 650	6 200	450	800	1 100	140	*C 3080 M	*C 3080 KM
	650	200		25.591	7.874	5 000	8 650	610	700	950	275	*C 3180 MB	*C 3180 KMB

* SKF Explorer bearing

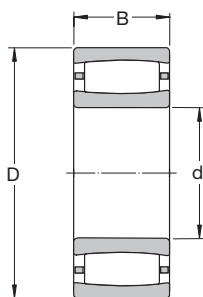
¹⁾ Please check availability of the bearing before incorporating it in a bearing arrangement design

²⁾ Also available in design K/HA3C4 or KM/HA3C4

CARB® toroidal roller bearings

d 420 - 710 mm

d 16.535 - 27.953 in



Principal dimensions						Basic load ratings		Fatigue load limit P _u	Speed ratings		Mass kg	Designations	
d	D	B	d	D	B	dynamic C	static C ₀		Refer- ence speed	Limiting speed		Bearing with cylindrical bore	tapered bore
mm			in			kN		kN	r/min	kg	—		
420	560	106	16.535	22.047	4.173	2 160	4 250	310	850	1 200	71	*C 3984 M	*C 3984 KM
	620	150		24.409	5.906	3 800	6 400	465	800	1 100	150	*C 3084 M	*C 3084 KM
	700	224		27.559	8.819	6 000	10 400	710	670	900	340	*C 3184 M	*C 3184 KM ²⁾
440	600	118	17.323	23.622	4.646	2 750	5 300	375	800	1 100	98	*C 3988 MB ¹⁾	*C 3988 KMB ¹⁾
	650	157		25.591	6.181	3 750	6 400	465	750	1000	185	*C 3088 MB	*C 3088 KMB
	720	226		28.346	8.898	5 700	9 300	655	670	900	360	*C 3188 MB ¹⁾	*C 3188 KMB ¹⁾
460	620	118	18.110	24.409	4.646	2 700	5 300	375	800	1 100	100	*C 3992 MB ¹⁾	*C 3992 KMB ¹⁾
	680	163		26.772	6.417	4 000	7 500	510	700	950	200	*C 3092 M	*C 3092 KM ²⁾
	760	240		29.921	9.449	6 800	12 000	800	600	800	430	*C 3192 M	*C 3192 KM
	760	300		29.921	11.811	8 300	14 300	950	480	630	535	*C 4192 M	*C 4192 K30M
480	650	128	18.898	25.591	5.039	3 100	6 100	430	750	1 000	120	*C 3996 M	*C 3996 KM
	700	165		27.559	6.496	4 050	7 800	530	670	900	210	*C 3096 M	*C 3096 KM
	790	248		31.102	9.764	6 950	12 500	830	560	750	490	*C 3196 MB ¹⁾	*C 3196 KMB ¹⁾
500	670	128	19.685	26.378	5.039	3 150	6 300	440	700	950	125	*C 39/500 M	*C 39/500 KM
	720	167		28.346	6.575	4 250	8 300	560	630	900	225	*C 30/500 M	*C 30/500 KM ²⁾
	830	264		32.677	10.394	7 500	12 700	850	530	750	550	*C 31/500 M	*C 31/500 KM ²⁾
	830	325		32.677	12.795	9 800	17 600	1 140	400	560	720	*C 41/500 MB	*C 41/500 K30MB
530	710	136	20.866	27.953	5.354	3 550	7 100	490	670	900	150	*C 39/530 M	*C 39/530 KM
	780	185		30.709	7.283	5 100	9 500	640	600	800	295	*C 30/530 M	*C 30/530 KM ²⁾
	870	272		34.252	10.709	8 800	15 600	1 000	500	670	630	*C 31/530 M	*C 31/530 KM ²⁾
560	750	140	22.047	29.528	5.512	3 600	7 350	490	600	850	170	*C 39/560 M	*C 39/560 KM
	820	195		32.283	7.677	5 600	11 000	720	530	750	345	*C 30/560 M	*C 30/560 KM ²⁾
	920	280		36.220	11.024	9 500	17 000	1 100	480	670	750	*C 31/560 MB ¹⁾	*C 31/560 KMB ¹⁾
600	800	150	23.622	31.496	5.906	4 000	8 800	570	560	750	210	*C 39/600 M	*C 39/600 KM
	870	200		34.252	7.874	6 300	12 200	780	500	700	390	*C 30/600 M	*C 30/600 KM ²⁾
	980	300		38.583	11.811	10 200	18 000	1 120	430	600	870	*C 31/600 MB ¹⁾	*C 31/600 KMB ¹⁾
630	850	165	24.803	33.465	6.496	4 650	10 000	640	530	700	270	*C 39/630 M	*C 39/630 KM
	920	212		36.220	8.346	6 800	12 900	830	480	670	465	*C 30/630 M	*C 30/630 KM ²⁾
	1030	315		40.551	12.402	12 200	22 000	1 370	400	560	1 040	*C 31/630 MB ¹⁾	*C 31/630 KMB ¹⁾
670	900	170	26.378	35.433	6.693	4 900	11 200	695	480	630	310	*C 39/670 M	*C 39/670 KM
	980	230		38.583	9.055	8 150	16 300	1 000	430	600	580	*C 30/670 M	*C 30/670 KM ²⁾
	1090	336		42.913	13.228	12 000	22 000	1 320	380	530	1 230	*C 31/670 MB ¹⁾	*C 31/670 KMB ¹⁾
710	950	180	27.953	37.402	7.087	6 000	12 500	780	450	630	355	*C 39/710 M	*C 39/710 KM
	1030	236		40.551	9.291	8 800	17 300	1 060	400	560	645	*C 30/710 M	*C 30/710 KM
	1030	315		40.551	12.402	10 600	21 600	1 290	320	430	860	*C 40/710 M	*C 40/710 K30M
	1150	345		45.276	13.583	12 700	24 000	1 430	360	480	1 410	*C 31/710 MB ¹⁾	*C 31/710 KMB ¹⁾

* SKF Explorer bearing

¹⁾ Please check availability of the bearing before incorporating it in a bearing arrangement design

²⁾ Also available in design KM/HA3C4

CARB® toroidal roller bearings

d 750 - 1250 mm
d 29.528 - 49.213 in

Principal dimensions						Basic load ratings		Fatigue load limit	Speed ratings		Mass	Designations	
d	D	B	d	D	B	dynamic C	static C ₀	P _u	Refer- ence speed	Limiting speed		Bearing with cylindrical bore	tapered bore
mm			in			kN		kN	r/min		kg	—	
750	1000	185	29.528	39.370	7.283	6 100	13 400	815	430	560	405	*C 39/750 M	*C 39/750 KM
	1090	250		42.913	9.843	9 000	18 000	1 100	380	530	770	*C 30/750 MB ¹⁾	*C 30/750 KMB ¹⁾
	1220	365		48.031	14.370	16 000	30 500	1 800	320	450	1 700	*C 31/750 MB ¹⁾	*C 31/750 KMB ¹⁾
800	1060	195	31.496	41.732	7.677	6 400	14 600	865	380	530	470	*C 39/800 M	*C 39/800 KM
	1150	258		45.276	10.157	9 150	18 600	1 120	360	480	860	*C 30/800 MB ¹⁾	*C 30/800 KMB ¹⁾
	1280	375		50.394	14.764	15 600	30 500	1 760	300	400	1 870	*C 31/800 MB ¹⁾	*C 31/800 KMB ¹⁾
850	1120	200	33.465	44.094	7.874	7 350	16 300	965	360	480	530	*C 39/850 M	*C 39/850 KM
	1220	272		48.031	10.709	11 200	24 000	1 370	320	430	1 050	*C 30/850 MB ¹⁾	*C 30/850 KMB ¹⁾
	1360	400		53.543	15.748	16 000	32 000	1 830	280	380	2 260	*C 31/850 MB ¹⁾	*C 31/850 KMB ¹⁾
900	1180	206	35.433	46.457	8.110	8 150	18 000	1 060	340	450	580	*C 39/900 MB ¹⁾	*C 39/900 KMB ¹⁾
	1280	280		50.394	11.024	12 700	26 500	1 530	300	400	1 150	*C 30/900 M	*C 30/900 KM
950	1250	224	37.402	49.213	8.819	9 300	22 000	1 250	300	430	745	*C 39/950 M	*C 39/950 KM
	1360	300		53.543	11.811	12 900	27 500	1 560	280	380	1 410	*C 30/950 MB ¹⁾	*C 30/950 KMB ¹⁾
1 000	1420	308	39.370	55.905	12.126	13 400	29 000	1 630	260	340	1 570	*C 30/1000 MB ¹⁾	*C 30/1000 KMB ¹⁾
	1580	462		62.205	18.189	22 800	45 500	2 500	220	300	3 470	*C 31/1000 MB ¹⁾	*C 31/1000 KMB ¹⁾
1 060	1400	250	41.732	55.118	9.843	12 500	29 000	1 600	260	340	1 040	*C 39/1060 MB ¹⁾	*C 39/1060 KMB ¹⁾
1 180	1540	272	46.457	60.630	10.709	12 900	31 500	1 660	220	300	1 340	*C 39/1180 M	*C 39/1180 KM
1 250	1750	375	49.213	68.898	14.764	20 400	45 000	2 320	180	240	2 740	*C 30/1250 MB ¹⁾	*C 30/1250 KMB ¹⁾

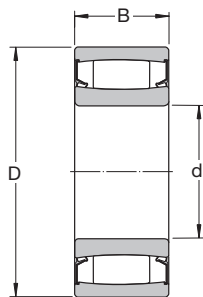
* SKF Explorer bearing

¹⁾ Please check availability of the bearing before incorporating it in a bearing arrangement design

Sealed CARB® toroidal roller bearings

d 50 - 200 mm

d 1.969 - 7.874 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Limiting speed	Mass	Designation
d	D	B	d	D	B	dynamic	static				
mm			in			kN		kN	r/min	kg	—
50	72	40	1.969	2.835	1.575	140	224	24.5	200	0.56	* C 6910-2CS5V ¹⁾
60	85	45	2.362	3.346	1.772	150	240	26.5	170	0.83	* C 6912-2CS5V ¹⁾
65	100	35	2.559	3.937	1.378	102	173	19	150	1.1	* C 4013-2CS5V
75	105	54	2.953	4.134	2.126	204	325	37.5	140	1.4	* C 6915-2CS5V
	115	40		4.528	1.575	143	193	23.2	130	1.4	* C 4015-2CS5V ¹⁾
90	125	46	3.543	4.921	1.811	224	400	44	110	1.75	* C 5918-2CS5V
100	150	50	3.937	5.906	1.969	310	450	50	95	2.9	* C 4020-2CS5V ¹⁾
	165	65		6.496	2.559	475	655	69.5	90	5.2	* C 4120-2CS5V
110	170	60	4.331	6.693	2.362	415	585	63	85	4.6	* C 4022-2CS5V ¹⁾
	180	69		7.087	2.717	500	710	75	85	6.6	* C 4122-2CS5V
120	180	60	4.724	7.087	2.362	430	640	67	80	5.1	* C 4024-2CS5V
	200	80		7.874	3.150	710	1 000	100	75	9.7	* C 4124-2CS5V ¹⁾
130	200	69	5.118	7.874	2.717	550	830	85	70	7.5	* C 4026-2CS5V
	210	80		8.268	3.150	750	1 100	108	70	10.5	* C 4126-2CS5V
140	210	69	5.512	8.268	2.717	570	900	88	67	7.9	* C 4028-2CS5V ¹⁾
	225	85		8.858	3.346	780	1 200	116	63	12.5	* C 4128-2CS5V
150	225	75	5.906	8.858	2.953	585	965	93	63	10	* C 4030-2CS5V
	250	100		9.843	3.937	1 220	1 860	173	60	20.5	* C 4130-2CS5V ¹⁾
160	240	80	6.299	9.449	3.150	655	1 100	104	60	12	* C 4032-2CS5V ¹⁾
	270	109		10.630	4.291	1 460	2 160	200	53	26	* C 4132-2CS5V ¹⁾
170	260	90	6.693	10.236	3.543	965	1 630	150	53	17	* C 4034-2CS5V ¹⁾
	280	109		11.024	4.291	1 530	2 280	208	53	27	* C 4134-2CS5V ¹⁾
180	280	100	7.087	11.024	3.937	1 320	2 120	193	53	23.5	* C 4036-2CS5V ¹⁾
	300	118		11.811	4.646	1 760	2 700	240	48	35	* C 4136-2CS5V ¹⁾
190	290	100	7.480	11.417	3.937	1 370	2 320	204	48	24.5	* C 4038-2CS5V ¹⁾
	320	128		12.598	5.039	2 040	3 150	275	45	43.5	* C 4138-2CS5V ¹⁾
200	310	109	7.874	12.205	4.291	1 630	2 650	232	45	31	* C 4040-2CS5V ¹⁾
	340	140		13.386	5.512	2 360	3 650	315	43	54.5	* C 4140-2CS5V ¹⁾

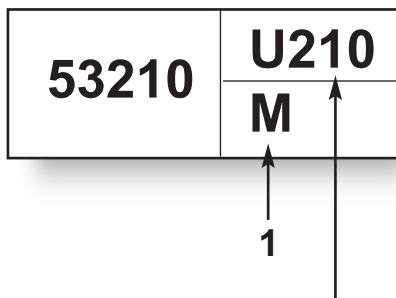
* SKF Explorer bearing

¹⁾ Please check availability of the bearing before incorporating it in a bearing arrangement design



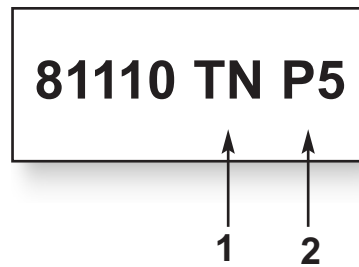
Thrust Bearings

Thrust Ball Bearing

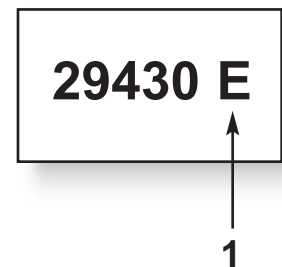


with seating washer

Cylindrical Roller Thrust Bearing



Spherical Roller Thrust Bearing



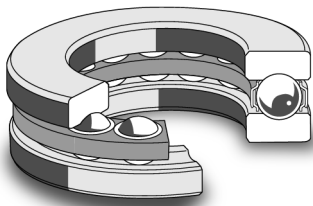
1. Features	
F	Machined steel or special cast iron cage, roller guided
J9	Internal design change to J cage
M	Machined brass cage, roller guided
P5	Dimensional and running accuracy to ISO tolerance class 5 (approximately ABEC 5)

1. Cage	
	Standard Reinforced Polyamide (TN) Machined brass (M) Steel (F)
2. Precision	
	Normal, larger bearings can be offered in P5 (check for availability)

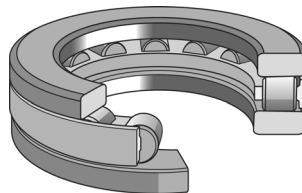
1. Features	
–	Machined brass cage (no symbol)
B	Pressed steel cage, no cage guide ring
E	Improved internal design
M	Machined brass cage, roller guided
RD	Spacer sleeve

Technical Features

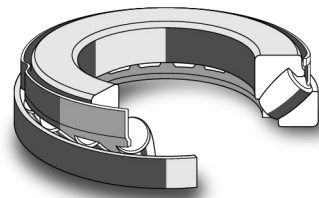
	Thrust Ball Bearings	Cylindrical Roller Thrust Bearings	Spherical Roller Thrust Bearings
Boundary Dimensions	Bearings with flat housing washers are in accordance with ISO 104:2002. The bearings with sphered housing washers have dimensions in accordance with DIN 711:1988 and DIN 715:1987	ISO 104:2002	Boundary dimensions in accordance with ISO 104:2002. Tolerances in accordance with ISO 199:1997 but SKF height tolerance 50% tighter and SKF Explorer height 75% tighter.
Tolerances	Normal (ABEC 1)	Normal to ISO 199:1997	RBEC 1 (Normal)
Heat stabilization	250°F (125°C)	150°C (With Polyamide cages operate up to 120°C only)	392°F (200°C)
Misalignment	None - contact SKF	No misalignment between the shaft and housing, nor any errors of alignment between the support surfaces in the housing and on the shaft.	Normal load conditions/ permissible misalignment $F_a + 2.7 \times F_r < 0.05 C_0$ series 29200 - 2 degrees series 29300 - 2.5 degrees series 29400 - 3 degrees
Cage Materials: Standard Optional	Pressed Steel Machined Brass (M)	Reinforced Polyamide TN9 Machined brass	heavier load conditions $F_a + 2.7 \times F_r > 0.05 C_0$ 1.5 degrees for all series
Axial Load - max	Thrust bearing (see tables in General catalogue)		
Seals	Not available	Not available	Not available



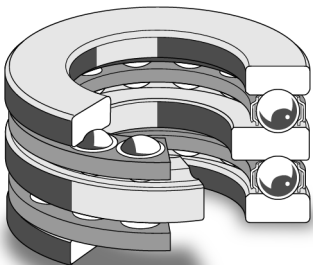
**Single Direction
Thrust Ball Bearing**
(data tables on page 196)



**Cylindrical Roller
Thrust Bearing**
(data tables on page 205)



**Spherical Roller
Thrust Bearing**
(data tables on page 208)



**Double Direction
Thrust Ball Bearing**
(data tables on page 202)

Mounting

SKF spherical roller thrust bearings are of separable design, i.e. the shaft washer with cage and roller assembly can be mounted separately from the housing washer.

If bearings of earlier design with a machined cage, where the cage-guiding sleeve also served as spacer sleeve, are to be replaced by E-design bearings, a spacer sleeve is needed between the shaft washer and shaft shoulder (**figure 1**).

If earlier B-design bearings, which were mounted with a spacer sleeve, are to be replaced, the sleeve must be checked and re-machined if necessary (**figure 2**). The sleeves must be hardened and should have ground end faces. The recommended sleeve outside diameter is given for each bearing in the product table.

Figure 1

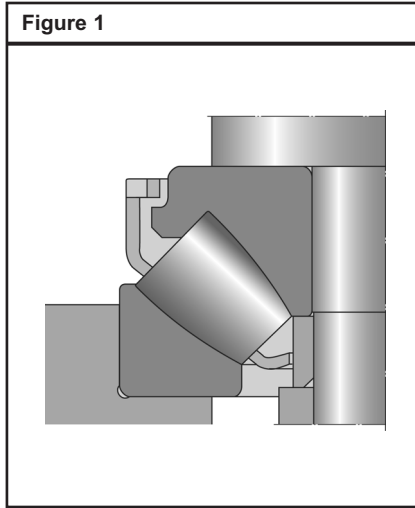
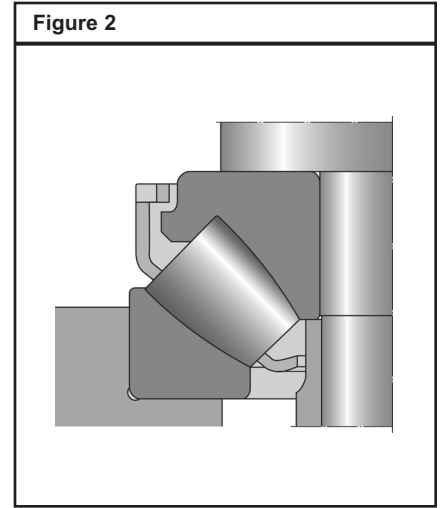


Figure 2



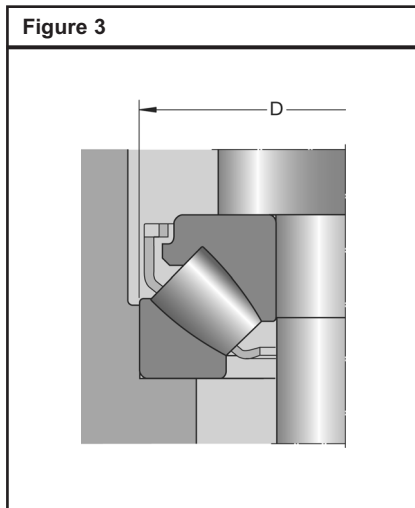
Design of Associated Components

The abutment dimensions d_a and D_a in the product table apply for bearing loads up to approximately $F_a = 0.1 C_0$. Where bearings are to be subjected to heavier loads it may be necessary for both shaft and housing washers to be fully supported ($d_a = d_1$ and $D_a = D_1$) and for radial support to be provided for the housing washer. For additional information, contact the SKF Application Engineering service.

For E-design bearings with a pressed steel cage, the housing bore must be recessed (**figure 3**) to prevent the cage from rubbing against the housing if the shaft should become misaligned. Recommended guideline values for the diameter of this recess are

- $D + 15$ mm for bearings with outside diameter up to and including 380 mm and
- $D + 20$ mm for larger bearings.

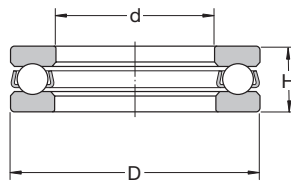
Figure 3



Single direction thrust ball bearings

d 3 - 40 mm

d 0.118 - 1.575 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Minimum load factor A	Speed ratings		Mass kg	Designation
d	D	H	d	D	H	dynamic	static			Refer-ence speed	Limiting speed		
mm			in			kN		kN	–	r/min		–	
3	8	3.5	0.118	0.315	0.138	1	1	0.028	0.000003	26 000	36 000	0.003	BA 3
4	10	4	0.157	0.394	0.157	1	1	0.044	0.000008	22 000	30 000	0.003	BA 4
5	12	4	0.197	0.472	0.157	1	2	0.06	0.000013	20 000	28 000	0.004	BA 5
6	14	5	0.236	0.551	0.197	2	2	0.085	0.000027	17 000	24 000	0.004	BA 6
7	17	6	0.276	0.669	0.236	3	3	0.12	0.00005	14 000	19 000	0.005	BA 7
8	19	7	0.315	0.748	0.276	3	4	0.15	0.000085	12 000	17 000	0.007	BA 8
9	20	7	0.354	0.787	0.276	4	5	0.17	0.00011	12 000	16 000	0.01	BA 9
10	24	9	0.394	0.945	0.354	10	15	0.56	0.0012	9 500	13 000	0.02	51100
	26	11		1.024	0.433	13	19	0.7	0.0018	8 000	11 000	0.03	51200
12	26	9	0.472	1.024	0.354	10	17	0.62	0.0014	9 000	13 000	0.022	51101
	28	11		1.102	0.433	13	21	0.77	0.0022	8 000	11 000	0.034	51201
15	28	9	0.591	1.102	0.354	9	15	0.56	0.0012	8 500	12 000	0.023	51102
	32	12		1.260	0.472	17	27	1	0.0038	7 000	10 000	0.046	51202
17	30	9	0.669	1.181	0.354	10	17	0.62	0.0014	8 500	12 000	0.025	51103
	35	12		1.378	0.472	17	30	1.1	0.0047	6 700	9 500	0.053	51203
20	35	10	0.787	1.378	0.394	14	25	0.92	0.0033	7 500	10 000	0.037	51104
	40	14		1.575	0.551	23	41	1.53	0.0085	6 000	8 000	0.083	51204
25	42	11	0.984	1.654	0.433	16	32	0.92	0.0033	6 300	9 000	0.056	51105
	47	15		1.850	0.591	28	55	2.04	0.015	5 300	7 500	0.11	51205
	52	18		2.047	0.709	35	60	2.24	0.018	4 500	6 300	0.17	51305
	60	24		2.362	0.945	55	97	3.6	0.048	3 600	5 000	0.34	51405
30	47	11	1.181	1.850	0.433	17	36	1.34	0.0067	6 000	8 500	0.063	51106
	52	16		2.047	0.630	26	51	1.9	0.013	4 800	6 700	0.13	51206
	60	21		2.362	0.827	38	71	2.65	0.026	3 800	5 300	0.26	51306
	70	28		2.756	1.102	73	137	5.1	0.097	3 000	4 300	0.52	51406
35	52	12	1.378	2.047	0.472	17	41	1.53	0.0086	5 600	7 500	0.08	51107
	62	18		2.441	0.709	35	74	2.7	0.028	4 000	5 600	0.22	51207
	68	24		2.677	0.945	49	97	3.55	0.048	3 400	4 800	0.39	51307
	80	32		3.150	1.260	87	170	6.2	0.15	2 600	3 800	0.79	51407
40	60	13	1.575	2.362	0.512	23	55	2.04	0.015	5 000	7 000	0.12	51108
	68	19		2.677	0.748	47	106	4	0.058	3 800	5 300	0.28	51208
	78	26		3.071	1.024	62	122	4.5	0.077	3 000	4 300	0.53	51308
	90	36		3.543	1.417	112	224	8.3	0.26	2 400	3 400	1.1	51408

Single direction thrust ball bearings

d 45 - 90 mm

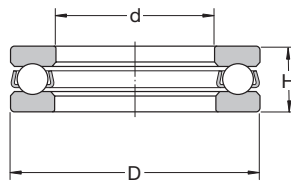
d 1.772 - 3.543 in

Principal dimensions						Basic load ratings		Fatigue load limit P _u	Minimum load factor A	Speed ratings		Mass kg	Designation
d	D	H	d	D	H	dynamic	static			Refer-ence speed	Limiting speed		
			in				kN		kN	–	r/min		–
45	65	14	1.772	2.559	0.551	24	61	2.28	0.019	4 500	6 300	0.14	51109
	73	20		2.874	0.787	39	87	3.2	0.038	3 600	5 000	0.3	51209
	85	28		3.346	1.102	76	153	5.6	0.12	2 800	4 000	0.66	51309
	100	39		3.937	1.535	130	265	9.8	0.37	2 200	3 000	1.4	51409
50	70	14	1.969	2.756	0.551	26	68	2.55	0.024	4 300	6 300	0.16	51110
	78	22		3.071	0.866	49	116	4.3	0.069	3 400	4 500	0.37	51210
	95	31		3.740	1.220	88	190	6.95	0.19	2 600	3 600	0.94	51310
	110	43		4.331	1.693	159	340	12.5	0.6	2 000	2 800	2	51410
55	78	16	2.165	3.071	0.630	31	85	3.1	0.039	3 800	5 300	0.23	51111
	90	25		3.543	0.984	62	146	5.4	0.11	2 800	4 000	0.59	51211
	105	35		4.134	1.378	104	224	8.3	0.26	2 200	3 200	1.3	51311
	120	48		4.724	1.890	178	390	14.3	0.79	1 800	2 400	2.55	51411
60	85	17	2.362	3.346	0.669	36	102	3.8	0.054	3 600	5 000	0.2	51112
	95	26		3.740	1.024	62	150	5.6	0.12	2 800	3 800	0.65	51212
	110	35		4.331	1.378	101	224	8.3	0.26	2 200	3 000	1.35	51312
	130	51		5.118	2.008	199	430	16	0.96	1 600	2 200	3.1	51412 M
65	90	18	2.559	3.543	0.709	37	108	4	0.06	3 400	4 800	0.33	51113
	100	27		3.937	1.063	64	163	6	0.14	2 600	3 600	0.78	51213
	115	36		4.528	1.417	106	240	8.8	0.3	2 000	3 000	1.5	51313
	140	56		5.512	2.205	216	490	18	1.2	1 500	2 200	4	51413 M
70	95	18	2.756	3.740	0.709	38	112	4.15	0.068	3 400	4 500	0.35	51114
	105	27		4.134	1.063	65	173	6.4	0.16	2 600	3 600	0.79	51214
	125	40		4.921	1.575	135	320	11.8	0.53	1 900	2 600	2	51314
	150	60		5.906	2.362	234	550	19.3	1.6	1 400	2 000	5	51414 M
75	100	19	2.953	3.937	0.748	44	146	5.5	0.11	3 200	4 300	0.4	51115
	110	27		4.331	1.063	68	183	6.8	0.17	2 400	3 400	0.83	51215
	135	44		5.315	1.732	163	390	14	0.79	1 700	2 400	2.6	51315
	160	65		6.299	2.559	251	610	20.8	1.9	1 300	1 800	6.75	51415 M
80	105	19	3.150	4.134	0.748	45	153	5.7	0.12	3 000	4 300	0.42	51116
	115	28		4.528	1.102	76	208	7.65	0.22	2 400	3 400	0.91	51216
	140	44		5.512	1.732	159	390	13.7	0.79	1 700	2 400	2.7	51316
	170	68		6.693	2.677	270	670	22.4	2.3	1 200	1 700	7.95	51416 M
85	110	19	3.346	4.331	0.748	46	163	6	0.14	3 000	4 300	0.44	51117
	125	31		4.921	1.220	98	275	9.8	0.39	2 200	3 000	1.2	51217
	150	49		5.906	1.929	190	465	16	1.1	1 600	2 200	3.55	51317
	180	72		7.087	2.835	286	750	24	2.9	1 200	1 600	9.45	51417 M
90	120	22	3.543	4.724	0.866	59	208	7.5	0.22	2 600	3 800	0.67	51118
	135	35		5.315	1.378	119	325	11.4	0.55	2 000	2 800	1.7	51218
	155	50		6.102	1.969	195	500	16.6	1.3	1 500	2 200	3.8	51318
	190	77		7.480	3.031	307	815	25.5	3.5	1 100	1 500	11	51418 M

Single direction thrust ball bearings

d 100 - 200 mm

d 3.937 - 7.874 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Minimum load factor A	Speed ratings		Mass kg	Designation
d	D	H	d	D	H	dynamic	static			Refer-ence speed	Limiting speed		
mm			in			kN		kN	–	r/min	kg	–	
100	135	25	3.937	5.315	0.984	85	290	10	0.44	2 400	3 200	0.97	51120
	150	38		5.906	1.496	124	345	11.4	0.62	1 800	2 400	2.2	51220
	170	55		6.693	2.165	229	610	19.6	1.9	1 400	1 900	4.95	51320
	210	85		8.268	3.346	371	1 060	31.5	5.8	950	1 400	15	51420 M
110	145	25	4.331	5.709	0.984	87	315	10.2	0.52	2 200	3 200	1.05	51122
	160	38		6.299	1.496	130	390	12.5	0.79	1 700	2 400	2.4	51222
	190	63		7.480	2.480	276	780	24	3.2	1 200	1 700	7.85	51322 M
	230	95		9.055	3.740	410	1 220	34.5	7.7	900	1 300	20	51422 M
120	155	25	4.724	6.102	0.984	88	335	10.6	0.58	2 200	3 000	1.15	51124
	170	39		6.693	1.535	140	440	13.4	1	1 600	2 200	2.65	51224
	210	70		8.268	2.756	325	980	28.5	5	1 100	1 500	11	51324 M
	250	102		9.843	4.016	520	1 730	45	16	800	1 100	29.5	51424 M
130	170	30	5.118	6.693	1.181	111	425	12.9	0.94	1 900	2 600	1.85	51126
	190	45		7.480	1.772	186	585	17	1.8	1 400	2 000	4	51226
	225	75		8.858	2.953	358	1 140	32	6.8	1 000	2 400	13	51326 M
	270	110		10.630	4.331	520	1 730	45	16	7 50	1 000	32	51426 M
140	180	31	5.512	7.087	1.220	111	440	12.9	1	1 800	2 600	2.05	51128
	200	46		7.874	1.811	190	620	17.6	2	1 400	1 900	4.35	51228
	240	80		9.449	3.150	397	1 320	35.5	9.1	950	1 300	15.5	51328 M
	280	112		11.024	4.409	520	1 730	44	16	700	1 000	34.5	51428 M
150	190	31	5.906	7.480	1.220	111	440	12.5	1	1 700	2 400	2.2	51130 M
	215	50		8.465	1.969	238	800	22	3.3	1 300	1 800	6.1	51230 M
	250	80		9.843	3.150	410	1 400	36.5	10	900	1 300	16.5	51330 M
	300	120		11.811	4.724	559	1 960	48	20	670	950	42.5	51430 M
160	200	31	6.299	7.874	1.220	112	465	12.9	1.1	1 700	2 400	2.35	51132 M
	225	51		8.858	2.008	242	850	22.8	3.8	1 200	1 700	6.55	51232 M
	270	87		10.630	3.425	449	1 660	41.5	14	850	1 200	21	51332 M
170	215	34	6.693	8.465	1.339	133	540	14.3	1.5	1 600	2 200	3.3	51134 M
	240	55		9.449	2.165	286	1 020	26	5.4	1 100	1 800	8.15	51234 M
	280	87		11.024	3.425	468	1 760	43	16	800	1 100	22	51334 M
180	225	34	7.087	8.858	1.339	135	570	15	1.7	1 500	2 200	3.5	51136 M
	250	56		9.843	2.205	296	1 080	27.5	6.1	1 100	1 500	8.6	51236 M
	300	95		11.811	3.740	520	2 000	47.5	21	750	1 100	28.5	51336 M
190	240	37	7.480	9.449	1.457	172	710	18	2.6	1 400	2 000	4.05	51138 M
	270	62		10.630	2.441	332	1 270	31	8.4	1 000	1 400	12	51238 M
	320	105		12.598	4.134	592	2 400	56	30	700	950	36.5	51338 M
200	250	37	7.874	9.843	1.457	168	710	17.6	2.6	1 400	1 900	4.25	51140 M
	280	62		11.024	2.441	338	1 320	31.5	9.1	1 000	1 400	12	51240 M
	340	110		13.386	4.331	624	2 600	58.5	35	630	900	44.5	51340 M

Single direction thrust ball bearings

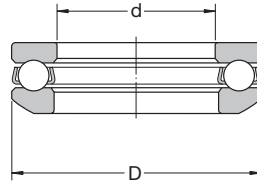
d 220 - 670 mm
d 8.661 - 26.378 in

Principal dimensions						Basic load ratings		Fatigue load limit P_u	Minimum load factor A	Speed ratings		Mass kg	Designation
d	D	H	d	D	H	C	static C_0			Refer-ence speed	Limiting speed		
mm			in			kN		kN	–	r/min		–	
220	270	37	8.661	10.630	1.457	178	800	19	3.3	1 300	1 900	4.6	51144 M
	300	63		11.811	2.480	351	1 460	33.5	11	950	1 300	13	51244 M
240	300	45	9.449	11.811	1.772	234	1 040	23.6	5.6	1 100	1 600	7.55	51148 M
	340	78		13.386	3.071	462	2 000	44	21	800	1 100	23	51248 M
260	320	45	10.236	12.598	1.772	238	1 100	24	6.3	1 100	1 500	8.1	51152 M
	360	79		14.173	3.110	475	2 160	45.5	24	750	1 100	25	51252 M
280	350	53	11.024	13.780	2.087	319	1 460	30.5	11	950	1 300	12	51156 M
	380	80		14.961	3.150	494	2 320	47.5	28	750	1 000	26.5	51256 M
300	380	62	11.811	14.961	2.441	364	1 760	35.5	16	850	1 200	17.5	51160 M
	420	95		16.535	3.740	605	3 000	58.5	47	630	850	42	51260 M
320	400	63	12.598	15.748	2.480	371	1 860	36.5	18	800	1 100	19	51164 M
	440	95		17.323	3.740	572	3 000	56	47	600	850	45.5	51264 F
340	420	64	13.386	16.535	2.520	377	1 960	37.5	20	800	1 100	20.5	51168 M
	460	96		18.110	3.780	605	3 200	58.5	53	600	800	48.5	51268 F
360	440	65	14.173	17.323	2.559	390	2 080	38	22	750	1 100	22	51172 F
	500	110		19.685	4.331	741	4 150	73.5	90	530	750	70	51272 F
380	460	65	14.961	18.110	2.559	397	2 200	40	25	750	1 000	23	51176 F
	520	112		20.472	4.409	728	4 150	72	90	500	700	73	51276 F
400	480	65	15.748	18.898	2.559	403	2 280	40.5	27	700	1 000	24	51180 F
420	500	65	16.535	19.685	2.559	410	2 400	41.5	30	700	1 000	25.5	51184 F
440	540	80	17.323	21.260	3.150	527	3 250	55	55	600	850	42	51188 F
460	560	80	18.110	22.047	3.150	527	3 250	54	55	600	800	43.5	51192 F
480	580	80	18.898	22.835	3.150	540	3 550	56	66	560	800	45.5	51196 F
500	600	80	19.685	23.622	3.150	553	3 600	57	67	560	800	47	511/500 F
530	640	85	20.866	25.197	3.346	650	4 400	68	100	530	750	58.5	511/530 F
560	670	85	22.047	26.378	3.346	663	4 650	69.5	110	500	700	61	511/560 F
600	710	85	23.622	27.953	3.346	663	4 800	69.5	120	500	700	65	511/600 F
630	750	95	24.803	29.528	3.740	728	5 400	76.5	150	450	630	84	511/630 F
670	800	105	26.378	31.496	4.134	852	6 700	91.5	230	400	560	105	511/670 F

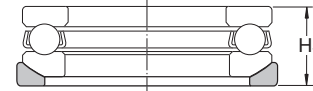
Single direction thrust bearings with sphered housing washer

d 12 - 80 mm

d 0.472 - 3.150 in



Bearing



Seating washer

* Bearing and seating washer ordered separately

Principal dimensions						Basic load ratings		Fatigue load limit P _u	Minimum load factor A	Speed ratings		Mass Bearing + washer kg	Designations*	
d	D	H ₁	d	D	H ₁	dynamic	static			Refer-ence speed	Limiting speed		Bearing	Seating washer
mm			in			kN		kN	–	r/min		kg	–	
12	28	13	0.472	1.102	0.512	13.3	20.8	0.77	0.0022	8 000	11 000	0.045	53201	U 201
15	32	15	0.591	1.260	0.591	16.5	27	1	0.0038	7 000	10 000	0.063	53202	U 202
17	35	15	0.669	1.378	0.591	17.2	30	1.1	0.0047	6 700	9 500	0.071	53203	U 203
20	40	17	0.787	1.575	0.669	22.5	40.5	1.53	0.0085	6 000	8 000	0.1	53204	U 204
25	47	19	0.984	1.850	0.748	27.6	55	2.04	0.015	5 300	7 500	0.15	53205	U 205
30	52	20	1.181	2.047	0.787	25.5	51	1.9	0.013	4 800	6 700	0.18	53206	U 206
	60	25		2.362	0.984	37.7	71	2.65	0.026	3 800	5 300	0.33	53306	U 306
35	62	22	1.378	2.441	0.866	35.1	73.5	2.7	0.028	4 000	5 600	0.28	53207	U 207
	68	28		2.677	1.102	49.4	96.5	3.55	0.048	3 400	4 800	0.46	53307	U 307
40	68	23	1.575	2.677	0.906	46.8	106	4	0.058	3 800	5 300	0.35	53208	U 208
	78	31		3.071	1.220	61.8	122	4.5	0.077	3 000	4 300	0.67	53308	U 308
	90	42		3.543	1.654	112	224	8.3	0.26	2 400	3 400	1.35	53408	U 408
45	73	24	1.772	2.874	0.945	39	86.5	3.2	0.038	3 600	5 000	0.39	53209	U 209
	85	33		3.346	1.299	76.1	153	5.6	0.12	2 800	4 000	0.83	53309	U 309
50	78	26	1.969	3.071	1.024	49.4	116	4.3	0.069	3 400	4 500	0.47	53210	U 210
	95	37		3.740	1.457	88.4	190	6.95	0.19	2 600	3 600	1.2	53310	U 310
	110	50		4.331	1.969	159	340	12.5	0.6	2 000	2 800	2.31	53410	U 410
55	90	30	2.165	3.543	1.181	61.8	146	5.4	0.11	2 800	4 000	0.75	53211	U 211
	105	42		4.134	1.654	104	224	8.3	0.26	2 200	3 200	1.68	53311	U 311
	120	55		4.724	2.165	178	390	14.3	0.79	1 800	2 400	3.08	53411	U 411
60	95	31	2.362	3.740	1.220	62.4	150	5.6	0.12	2 800	3 800	0.82	53212	U 212
	110	42		4.331	1.654	101	224	8.3	0.26	2 200	3 000	1.71	53312	U 312
	130	58		5.118	2.283	199	430	16	0.96	1 600	2 200	3.8	53412 M	U 412
65	100	32	2.559	3.937	1.260	63.7	163	6	0.14	2 600	3 600	0.91	53213	U 213
	115	43		4.528	1.693	106	240	8.8	0.3	2 000	3 000	1.89	53313	U 313
70	105	32	2.756	4.134	1.260	65	173	6.4	0.16	2 600	3 600	0.97	53214	U 214
	125	48		4.921	1.890	135	320	11.8	0.53	1 900	2 600	2.5	53314	U 314
	150	69		5.906	2.717	234	550	19.3	1.6	1 400	2 000	6.5	53414 M	U 414
75	110	32	2.953	4.331	1.260	67.6	183	6.8	0.17	2 400	3 400	1	53215	U 215
	135	52		5.315	2.047	163	390	14	0.79	1 700	2 400	3.2	53315	U 315
	160	75		6.299	2.953	251	610	20.8	1.9	1 300	1 800	8.1	53415 M	U 415
80	115	33	3.150	4.528	1.299	76.1	208	7.65	0.22	2 400	3 400	1.1	53216	U 216
	140	52		5.512	2.047	159	390	13.7	0.79	1 700	2 400	3.3	53316	U 316

Single direction thrust bearings with sphered housing washer

d 85 - 140 mm
d 3.346 - 5.512 in

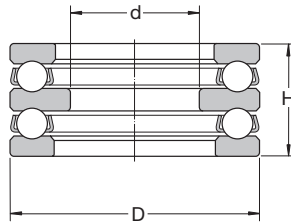
* Bearing and seating washer
ordered separately

Principal dimensions						Basic load ratings		Fatigue load limit P _u	Minimum load factor A	Speed ratings		Mass Bearing + washer kg	Designations*	
d	D	H ₁	d	D	H ₁	dynamic	static			Refer- ence speed	Limiting speed		Bearing	Seating washer
			in			kN		kN	–	r/min		–		
85	125	37	3.346	4.921	1.457	97.5	275	9.8	0.39	2 200	3 000	1.5	53217	U 217
	150	58		5.906	2.283	190	465	16	1.1	1 600	2 200	4.35	53317	U 317
90	135	42	3.543	5.315	1.654	119	325	11.4	0.55	2 000	2 800	2.1	53218	U 218
	155	59		6.102	2.323	195	500	16.6	1.3	1 500	2 200	4.7	53318	U 318
	190	88		7.480	3.465	307	815	25.5	3.5	1 100	1 500	13	53418 M	U 418
100	150	45	3.937	5.906	1.772	124	345	11.4	0.62	1 800	2 400	2.7	53220	U 220
	170	64		6.693	2.520	229	610	19.6	1.9	1 400	1 900	5.95	53320	U 320
	210	98		8.268	3.858	371	1060	31.5	5.8	950	1 400	18	53420 M	U 420
110	160	45	4.331	6.299	1.772	130	390	12.5	0.79	1 700	2 400	2.91	53222	U 222
	190	72		7.480	2.835	276	780	24	3.2	1 200	1 700	9.1	53322 M	U 322
120	170	46	4.724	6.693	1.811	140	440	13.4	1	1 600	2 200	3.2	53224	U 224
	210	80		8.268	3.150	325	980	28.5	5	1 100	1 500	12.5	53324 M	U 324
130	190	53	5.118	7.480	2.087	186	585	17	1.8	1 400	2 000	4.85	53226	U 226
140	200	55	5.512	7.874	2.165	190	620	17.6	2	1 400	1 900	5.45	53228	U 228

Double direction thrust ball bearings

d 10 - 70 mm

d 0.394 - 2.756 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Minimum load factor A	Speed ratings		Mass kg	Designation
d	D	H	d	D	H	dynamic C	static C_0			Refer- ence speed	Limiting speed		
mm			in			kN		kN	–	r/min	kg		–
10	32	22	0.394	1.260	0.866	16.5	27	1	0.0038	7 000	10 000	0.081	52202
15	40	26	0.591	1.575	1.024	22.5	41	1.53	0.0085	6 000	8 000	0.15	52204
20	47	28	0.787	1.850	1.102	27.6	55	2.04	0.015	5 300	7 500	0.22	52205
	52	34		2.047	1.339	34.5	60	2.24	0.018	4 500	6 300	0.33	52305
	70	52		2.756	2.047	72.8	137	5.1	0.097	3 600	5 000	1	52406
25	52	29	0.984	2.047	1.142	25.5	51	1.9	0.013	4 800	6 700	0.25	52206
	60	38		2.362	1.496	37.7	71	2.65	0.026	3 800	5 300	0.47	52306
	80	59		3.150	2.323	87.1	170	6.2	0.15	3 000	4 300	1.45	52407
30	62	34	1.181	2.441	1.339	35.1	74	2.7	0.028	4 000	5 600	0.41	52207
	68	36		2.677	1.417	46.8	106	4	0.058	3 800	5 300	0.55	52208
	68	44		2.677	1.732	49.4	97	3.55	0.048	3 400	4 800	0.68	52307
	78	49		3.071	1.929	61.8	122	4.5	0.077	3 000	4 300	1.05	52308
90	65	3.543	2.559	112	224	8.3	0.26	2 400	3 400	2.05	52408		
35	73	37	1.378	2.874	1.457	39	87	3.2	0.038	3 600	5 000	0.6	52209
	85	52		3.346	2.047	76.1	153	5.6	0.12	2 800	4 000	1.25	52309
	100	72		3.937	2.835	130	265	9.8	0.37	2 200	3 000	2.7	52409
40	78	39	1.575	3.071	1.535	49.4	116	4.3	0.069	3 400	4 500	0.71	52210
	95	58		3.740	2.283	88.4	190	6.95	0.19	2 600	3 600	1.75	52310
45	90	45	1.772	3.543	1.772	61.8	146	5.4	0.11	2 800	4 000	1.1	52211
	105	64		4.134	2.520	104	224	8.3	0.26	2 200	3 200	2.4	52311
	120	87		4.724	3.425	178	390	14.3	0.79	1 800	2 400	4.7	52411
50	95	46	1.969	3.740	1.811	62.4	150	5.6	0.12	2 200	3 000	1.2	52212
	110	64		4.331	2.520	101	224	8.3	0.26	1 600	2 200	2.55	52312
	130	93		5.118	3.661	199	430	16	0.96	1 600	2 200	6.35	52412 M
55	100	47	2.165	3.937	1.850	63.7	163	6	0.14	2 600	3 600	1.35	52213
	105	47		4.134	1.850	65	173	6.4	0.16	2 600	3 600	1.5	52214
	115	65		4.528	2.559	106	240	8.8	0.3	2 000	3 000	2.75	52313
	125	72		4.921	2.835	135	320	11.8	0.53	1 900	2 600	3.65	52314
150	107	5.906	4.213	234	550	19.3	1.6	1 400	2 000	9.7	52414 M		
60	110	47	2.362	4.331	1.850	67.6	183	6.8	0.17	2 400	3 400	1.55	52215
	135	79		5.315	3.110	163	390	14	0.79	1 700	2 400	4.8	52315
65	115	48	2.559	4.528	1.890	76.1	208	7.65	0.22	2 400	3 400	1.7	52216
	140	79		5.512	3.110	159	390	13.7	0.79	1 700	2 400	4.94	52316
70	125	55	2.756	4.921	2.165	97.5	275	9.8	0.39	2 200	3 000	2.4	52217

Double direction thrust ball bearings

d 75 - 150 mm

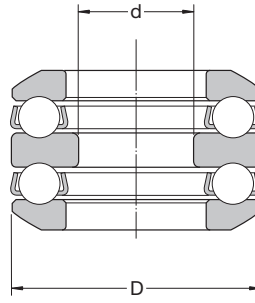
d 2.953 - 5.906 in

Principal dimensions						Basic load ratings		Fatigue load limit P_u	Minimum load factor A	Speed ratings		Mass kg	Designation
d	D	H	d	D	H	dynamic C	static C_0			Refer- ence speed	Limiting speed		
mm			in			kN		kN	–	r/min		kg	–
75	135	62	2.953	5.315	2.441	119	325	11.4	0.55	2 000	2 800	3.2	52218
85	150	67	3.346	5.906	2.638	124	345	11.4	0.62	1 800	2 400	4.2	52220
	170	97		6.693	3.819	229	610	19.6	1.9	1 400	1 900	8.95	52320
95	160	67	3.740	6.299	2.638	130	390	12.5	0.79	1 700	2 400	4.65	52222
100	170	68	3.937	6.693	2.677	140	440	13.4	1	1 600	2 200	5.25	52224
110	190	80	4.331	7.480	3.150	186	585	17	1.8	1 400	2 000	8	52226
120	200	81	4.724	7.874	3.189	190	620	17.6	2	1 400	1 900	8.65	52228
130	215	89	5.118	8.465	3.504	238	800	22	3.3	1 300	1 800	11.5	52230 M
140	225	90	5.512	8.858	3.543	242	850	22.8	3.8	1 200	1 700	12	52232 M
	250	98		9.449	3.819	286	1 020	26	5.4	1 100	1 600	15	52234 M
150	240	97	5.906	9.449	3.819	286	1 020	26	5.4	1 100	1 600	15	52234 M
	250	98		9.843	3.858	296	1 080	27.5	6.1	1 100	1 500	16	52236 M

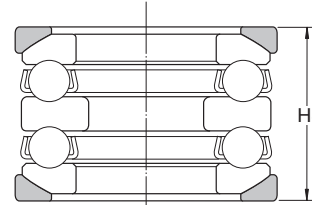
Double direction thrust ball bearings with sphered housing washers

d 25 - 80 mm

d 0.984 - 3.150 in



Bearing



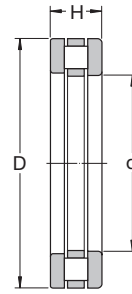
Seating washer

* Bearing and seating washer ordered separately

Principal dimensions						Basic load ratings		Fatigue load limit P_u	Minimum load factor A	Speed ratings		Mass Bearing + washers kg	Designations*	
d	D	H_1	d	D	H_1	dynamic C	static C_0			Refer- ence speed	Limiting speed		Bearing	Seating washer
mm			in			kN		kN	–	r/min		–		
25	60	46	0.984	2.362	1.811	37.7	71	2.65	0.026	3 800	5 300	0.58	54306	U 306
30	62	42	1.181	2.441	1.654	35.1	73.5	2.7	0.028	4 000	5 600	0.53	54207	U 207
	68	44		2.677	1.732	46.8	106	4	0.058	3 800	5 300	0.63	54208	U 208
	68	52		2.677	2.047	49.4	96.5	3.55	0.048	3 400	4 800	0.85	54307	U 307
	78	59		3.071	2.323	61.8	122	4.5	0.077	3 000	4 300	1.17	54308	U 308
35	73	45	1.378	2.874	1.772	39	86.5	3.2	0.038	3 600	5 000	0.78	54209	U 209
	85	62		3.346	2.441	76.1	153	5.6	0.12	2 800	4 000	1.6	54309	U 309
	100	86		3.937	3.386	130	265	9.8	0.37	2 200	3 000	3	54409	U 409
40	95	70	1.575	3.740	2.756	88.4	190	6.95	0.19	2 600	3 600	2.3	54310	U 310
	110	92		4.331	3.622	159	340	12.5	0.6	2 000	2 800	4.45	54410	U 410
45	90	55	1.772	3.543	2.165	61.8	146	5.4	0.11	2 800	4 000	1.3	54211	U 211
50	110	78	1.969	4.331	3.071	101	224	8.3	0.26	2 200	3 000	2.9	54312	U 312
	65	140		95	2.559	5.512	3.740	159	390	13.7	0.79	1 700	2 400	0.57
	170	140	6.693	5.512		270	670	22.4	2.3	1 200	1 700	1.4	54416 M	U 416
70	150	105	2.756	5.906	4.134	190	465	16	1.1	1 600	2 200	7.95	54317	U 317
80	210	176	3.150	8.268	6.929	371	1 060	31.5	5.8	950	1 400	29	54420 M	U 420

Cylindrical roller thrust bearings

d 15 - 100 mm
d 0.591 - 3.937 in

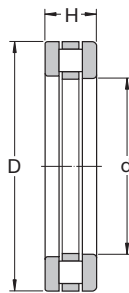


Principal dimensions						Basic load ratings		Fatigue load limit P_u	Minimum load factor A	Speed ratings		Mass	Designation
d	D	H	d	D	H	dynamic	static			Refer-ence speed	Limiting speed		
mm			in			kN		kN	–	r/min	kg	–	
15	28	9	0.591	1.102	0.354	11	27	2.45	0.000058	4 300	8 500	0.024	81102 TN
17	30	9	0.669	1.181	0.354	12	32	2.85	0.000079	4 300	8 500	0.027	81103 TN
20	35	10	0.787	1.378	0.394	19	48	4.65	0.00018	3 800	7 500	0.037	81104 TN
25	42	11	0.984	1.654	0.433	25	70	6.8	0.00039	3 200	6 300	0.053	81105 TN
30	47	11	1.181	1.850	0.433	27	78	7.65	0.00049	3 000	6 000	0.057	81106 TN
	52	16		2.047	0.630	50	134	13.4	0.0014	2 400	4 800	0.12	81206 TN
35	52	12	1.378	2.047	0.472	29	93	9.15	0.00069	2 800	5 600	0.073	81107 TN
	62	18		2.441	0.709	62	190	19.3	0.0029	2 000	4 000	0.2	81207 TN
40	60	13	1.575	2.362	0.512	43	137	13.7	0.0015	2 400	5 000	0.11	81108 TN
	68	19		2.677	0.748	83	255	26.5	0.0052	1 900	3 800	0.25	81208 TN
45	65	14	1.772	2.559	0.551	45	153	15.3	0.0019	2 200	4 500	0.13	81109 TN
	73	20		2.874	0.787	87	270	28	0.0058	1 800	3 600	0.29	81209 TN
50	70	14	1.969	2.756	0.551	48	166	16.6	0.0022	2 200	4 300	0.14	81110 TN
	78	22		3.071	0.866	92	300	31	0.0072	1 700	3 400	0.36	81210 TN
55	78	16	2.165	3.071	0.630	70	285	29	0.0065	1 900	3 800	0.22	81111 TN
	90	25		3.543	0.984	122	390	40	0.012	1 400	2 800	0.57	81211 TN
60	85	17	2.362	3.346	0.669	80	300	30.5	0.0072	1 800	3 600	0.27	81112 TN
	95	26		3.740	1.024	137	465	47.5	0.017	1 400	2 800	0.64	81212 TN
65	90	18	2.559	3.543	0.709	83	320	32.5	0.0082	1 700	3 400	0.31	81113 TN
	100	27		3.937	1.063	140	490	50	0.019	1 300	2 600	0.72	81213 TN
70	95	18	2.756	3.740	0.709	87	345	34.5	0.0095	1 600	3 200	0.33	81114 TN
	105	27		4.134	1.063	146	530	55	0.022	1 300	2 600	0.77	81214 TN
75	100	19	2.953	3.937	0.748	75	290	29	0.0067	1 600	3 200	0.39	81115 TN
	110	27		4.331	1.063	125	440	45	0.015	1 200	2 400	0.8	81215 TN
80	105	19	3.150	4.134	0.748	77	300	30.5	0.0072	1 500	3 000	0.4	81116 TN
	115	28		4.528	1.102	160	610	63	0.029	1 200	2 400	0.9	81216 TN
85	110	19	3.346	4.331	0.748	88	365	37.5	0.01	1 500	3 000	0.42	81117 TN
	125	31		4.921	1.220	153	550	57	0.024	1 100	2 200	1.25	81217 TN
90	120	22	3.543	4.724	0.866	104	415	42.5	0.013	1 300	2 600	0.62	81118 TN
	135	35		5.315	1.378	232	865	90	0.059	1 000	2 000	1.75	81218 TN
100	135	25	3.937	5.315	0.984	146	585	57	0.027	1 200	2 400	0.95	81120 TN
	150	38		5.906	1.496	224	830	81.5	0.055	900	1 800	2.2	81220 TN

Cylindrical roller thrust bearings

d 110 - 320 mm

d 4.331 - 12.598 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Minimum load factor A	Speed ratings		Mass kg	Designation
d	D	H	d	D	H	C	C_0			Refer- ence speed	Limiting speed		
			in				kN		kN	–	r/min		–
110	145	25	4.331	5.709	0.984	153	630	61	0.031	1 100	2 200	1.05	81122 TN
	160	38		6.299	1.496	240	915	90	0.066	850	1 700	2.3	81222 TN
120	155	25	4.724	6.102	0.984	160	680	64	0.036	1 100	2 200	1.1	81124 TN
	170	39		6.693	1.535	245	965	91.5	0.074	800	1 600	2.55	81224 TN
130	170	30	5.118	6.693	1.181	183	780	73.5	0.048	950	1 900	1.7	81126 TN
	190	45		7.480	1.772	380	146	137	0.17	700	1 400	4.2	81226 TN
140	180	31	5.512	7.087	1.220	193	850	76.5	0.057	900	1 800	1.9	81128 TN
	200	46		7.874	1.811	360	1 400	129	0.16	700	1 400	4.55	81228 M
150	190	31	5.906	7.480	1.220	200	900	81.5	0.064	850	1 700	2	81130 TN
	215	50		8.465	1.969	465	1 900	170	0.29	630	1 300	5.9	81230 M
160	200	31	6.299	7.874	1.220	216	1 020	90	0.083	850	1 700	2.2	81132 TN
	225	51		8.858	2.008	480	2 000	176	0.32	600	1 200	6.2	81232 M
170	215	34	6.693	8.465	1.339	260	1 180	104	0.11	800	1 600	2.95	81134 TN
	240	55		9.449	2.165	540	2 280	200	0.42	560	1 100	7.7	81234 M
180	225	34	7.087	8.858	1.339	270	1 270	110	0.13	750	1 500	3.05	81136 M
	250	56		9.843	2.205	550	2 400	204	0.46	560	1 100	8.25	81236 M
190	240	37	7.480	9.449	1.457	310	1 460	125	0.17	700	1 400	3.85	81138 M
	270	62		10.630	2.441	695	2 900	250	0.67	500	1 000	10.5	81238 M
200	250	37	7.874	9.843	1.457	310	1 500	127	0.18	700	1 400	4	81140 M
	280	62		11.024	2.441	720	3 100	255	0.77	500	1 000	12	81240 M
220	270	37	8.661	10.630	1.457	335	1 700	137	0.23	670	1 300	4.5	81144 M
	300	63		11.811	2.480	750	3 350	275	0.9	480	950	13	81244 M
240	300	45	9.449	11.811	1.772	475	2 450	196	0.48	560	1 100	7.25	81148 M
	340	78		13.386	3.071	1 100	4 900	390	1.9	400	800	22	81248 M
260	320	45	10.236	12.598	1.772	490	2 600	200	0.54	530	1 100	7.85	81152 M
	360	79		14.173	3.110	1 140	5 300	415	2.2	380	750	24	81252 M
280	350	53	11.024	13.780	2.087	680	3 550	275	1	480	950	10.5	81156 M
	380	80		14.961	3.150	1 160	5 500	425	2.4	360	750	26	81256 M
300	380	62	11.811	14.961	2.441	850	4 400	335	1.5	430	850	16.5	81160 M
	420	95		16.535	3.740	1 530	7 200	540	4.1	320	630	40.5	81260 M
320	400	63	12.598	15.748	2.480	880	4 650	345	1.7	400	800	18	81164 M
	440	95		17.323	3.740	1 560	7 500	550	4.5	300	600	42.5	81264 M

Cylindrical roller thrust bearings

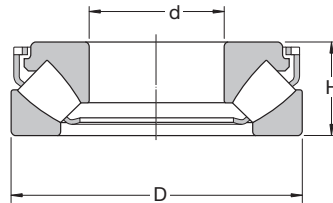
d 340 - 630 mm
d 13.386 - 24.803 in

Principal dimensions						Basic load ratings		Fatigue load limit P_u	Minimum load factor A	Speed ratings		Mass	Designation
d	D	H	d	D	H	dynamic C	static C_0			Refer- ence speed	Limiting speed		
mm			in			kN		kN	–	r/min	kg	–	
340	420	64	13.386	16.535	2.520	900	4 900	355	1.9	380	800	19.5	81168 M
	460	96		18.110	3.780	1 630	8 000	585	5.1	300	600	47	81268 M
360	440	65	14.173	17.323	2.559	900	4 900	355	1.9	380	750	19.5	81172 M
	500	110		19.685	4.331	2 160	10 400	750	8.7	260	530	65.5	81272 M
380	460	65	14.961	18.110	2.559	930	5 300	375	2.2	360	750	22	81176 M
400	480	65	15.748	18.898	2.559	965	5 600	390	2.5	360	700	23	81180 M
420	500	65	16.535	19.685	2.559	980	5 850	400	2.7	340	700	24	81184 M
440	540	80	17.323	21.260	3.150	1 430	8 000	550	5.1	300	600	39.5	81188 M
460	560	80	18.110	22.047	3.150	1 460	8 500	570	5.8	300	600	41	81192 M
480	580	80	18.898	22.835	3.150	1 460	8 650	585	6	280	560	43	81196 M
500	600	80	19.685	23.622	3.150	1 560	9 300	620	6.9	280	560	44	811/500 M
530	640	85	20.866	25.197	3.346	1 730	10 600	680	9	260	530	55.5	811/530 M
560	670	85	22.047	26.378	3.346	1 760	11 100	710	9.7	260	500	58	811/560 M
600	710	85	23.622	27.953	3.346	1 800	11 600	720	11	240	500	62	811/600 M
630	750	95	24.803	29.528	3.740	2 160	13 700	865	15	220	450	80	811/630 M

Spherical roller thrust bearings

d 60 - 190 mm

d 2.362 - 7.480 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Minimum load factor A	Speed ratings		Mass	Designation
d	D	H	d	D	H	C	C_0			Refer-ence speed	Limiting speed		
mm			in			kN		kN	–	r/min	kg	–	
60	130	42	2.362	5.118	1.654	390	915	114	0.08	2 800	5 000	2.6	* 29412 E
65	140	45	2.559	5.512	1.772	455	1 080	137	0.11	2 600	4 800	3.2	* 29413 E
70	150	48	2.756	5.906	1.890	520	1 250	153	0.15	2 400	4 300	3.9	* 29414 E
75	160	51	2.953	6.299	2.008	600	1 430	173	0.19	2 400	4 000	4.7	* 29415 E
80	170	54	3.150	6.693	2.126	670	1 630	193	0.25	2 200	3 800	5.6	* 29416 E
85	150	39	3.346	5.906	1.535	380	1 060	129	0.11	2 400	4 000	2.75	* 29317 E
	180	58		7.087	2.283	735	1 800	212	0.31	2 000	3 600	6.75	* 29417 E
90	155	39	3.543	6.102	1.535	400	1 080	132	0.11	2 400	4 000	2.85	* 29318 E
	190	60		7.480	2.362	815	2 000	232	0.38	1 900	3 400	7.75	* 29418 E
100	170	42	3.937	6.693	1.654	465	1 290	156	0.16	2 200	3 600	3.65	* 29320 E
	210	67		8.268	2.638	980	2 500	275	0.59	1 700	3 000	10.5	* 29420 E
110	190	48	4.331	7.480	1.890	610	1 730	204	0.28	1 900	3 200	5.3	* 29322 E
	230	73		9.055	2.874	1 180	3 000	325	0.86	1 600	2 800	13.5	* 29422 E
120	210	54	4.724	8.268	2.126	765	2 120	245	0.43	1 700	2 800	7.35	* 29324 E
	250	78		9.843	3.071	1 370	3 450	375	1.1	1 500	2 600	17.5	* 29424 E
130	225	58	5.118	8.858	2.283	865	2 500	280	0.59	1 600	2 600	9	* 29326 E
	270	85		10.630	3.346	1 560	4 050	430	1.6	1 300	2 400	22	* 29426 E
140	240	60	5.512	9.449	2.362	980	2 850	315	0.77	1 500	2 600	10.5	* 29328 E
	280	85		11.024	3.346	1 630	4 300	455	1.8	1 300	2 400	23	* 29428 E
150	215	39	5.906	8.465	1.535	408	1 600	180	0.24	1 800	2 800	4.3	29230 E
	250	60		9.843	2.362	1 000	2 850	315	0.77	1 500	2 400	11	* 29330 E
	300	90		11.811	3.543	1 860	5 100	520	2.5	1 200	2 200	28	* 29430 E
160	270	67	6.299	10.630	2.638	1 180	3 450	375	1.1	1 300	2 200	14.5	* 29332 E
	320	95		12.598	3.740	2 080	5 600	570	3	1 100	2 000	33.5	* 29432 E
170	280	67	6.693	11.024	2.638	1 200	3 550	365	1.2	1 300	2 200	15	* 29334 E
	340	103		13.386	4.055	2 360	6 550	640	4.1	1 100	1 900	44.5	* 29434 E
180	250	42	7.087	9.843	1.654	495	2 040	212	0.4	1 600	2 600	5.8	29236 E
	300	73		11.811	2.874	1 430	4 300	440	1.8	1 200	2 000	19.5	* 29336 E
	360	109		14.173	4.291	2 600	7 350	710	5.1	1 000	1 800	52.5	* 29436 E
190	320	78	7.480	12.598	3.071	1 630	4 750	490	2.1	1 100	1 900	23.5	* 29338 E
	380	115		14.961	4.528	2 850	8 000	765	6.1	950	1 700	60.5	* 29438 E

* SKF Explorer Bearing

Spherical roller thrust bearings

d 200 - 420 mm
d 7.874 - 16.535 in

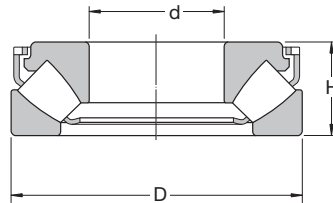
Principal dimensions						Basic load ratings		Fatigue load limit P _u	Minimum load factor A	Speed ratings		Mass kg	Designation
d	D	H	d	D	H	dynamic	static			Refer-ence speed	Limiting speed		
mm			in			kN		kN	–	r/min		–	
200	280	48	7.874	11.024	1.890	656	2 650	285	0.67	1 400	2 200	9.3	29240 E
	340	85		13.386	3.346	1 860	5 500	550	2.9	1 000	1 700	29.5	* 29340 E
	400	122		15.748	4.803	3 200	9 000	850	7.7	850	1 600	72	* 29440 E
220	300	48	8.661	11.811	1.890	690	3 000	310	0.86	1 300	2 200	10	29244 E
	360	85		14.173	3.346	2 000	6 300	610	3.8	1 000	1 700	33.5	* 29344 E
	420	122		16.535	4.803	3 350	9 650	900	8.8	850	1 500	75	* 29444 E
240	340	60	9.449	13.386	2.362	799	3 450	335	1.1	1 100	1 800	16.5	29248
	380	85		14.961	3.346	2 040	6 550	630	4.1	1 000	1 600	35.5	* 29348 E
	440	122		17.323	4.803	3 400	10 200	930	9.9	850	1 500	80	* 29448 E
260	360	60	10.236	14.173	2.362	817	3 650	345	1.3	1 100	1 700	18.5	29252
	420	95		16.535	3.740	2 550	8 300	780	6.5	850	1 400	49	* 29352 E
	480	132		18.898	5.197	4 050	12 900	1 080	16	750	1 300	105	* 29452 E
280	380	60	11.024	14.961	2.362	863	4 000	375	1.5	1 000	1 700	19.5	29256
	440	95		17.323	3.740	2 550	8 650	800	7.1	850	1 400	53	* 29356 E
	520	145		20.472	5.709	4 900	15 300	1 320	22	670	1 200	135	* 29456 E
300	420	73	11.811	16.535	2.874	1 070	4 800	465	2.2	900	1 400	30.5	29260
	480	109		18.898	4.291	3 100	10 600	930	11	750	1 200	75	* 29360 E
	540	145		21.260	5.709	4 310	16 600	1 340	26	600	1 200	140	29460 E
320	440	73	12.598	17.323	2.874	1 110	5 100	465	2.5	850	1 400	33	29264
	500	109		19.685	4.291	3 350	11 200	1 000	12	750	1 200	78	* 29364 E
	580	155		22.835	6.102	4 950	19 000	1 530	34	560	1 100	175	29464 E
340	460	73	13.386	18.110	2.874	1 130	5 400	480	2.8	850	1 300	33.5	29268
	540	122		21.260	4.803	2 710	11 000	950	11	600	1 100	105	29368
	620	170		24.409	6.693	5 750	22 400	1 760	48	500	1 000	220	29468 E
360	500	85	14.173	19.685	3.346	1 460	6 800	585	4.4	750	1 200	52	29272
	560	122		22.047	4.803	2 760	11 600	980	13	600	1 100	110	29372
	640	170		25.197	6.693	5 350	21 200	1 630	43	500	950	230	29472 EM
380	520	85	14.961	20.472	3.346	1 580	7 650	655	5.6	700	1 100	53	29276
	600	132		23.622	5.197	3 340	14 000	1 160	19	530	1 000	140	29376
	670	175		26.378	6.890	5 870	24 000	1 860	55	480	900	260	29476 EM
400	540	85	15.748	21.260	3.346	1 610	8 000	695	6.1	700	1 100	55.5	29280
	620	132		24.409	5.197	3 450	14 600	1 200	20	530	950	150	29380
	710	185		27.953	7.283	6 560	26 500	1 960	67	450	850	310	29480 EM
420	580	95	16.535	22.835	3.740	1 990	9 800	815	9.1	630	1 000	75.5	29284
	650	140		25.591	5.512	3 740	16 000	1 290	24	500	900	170	29384
	730	185		28.740	7.283	6 730	27 500	2 080	72	430	850	325	29484 EM

* SKF Explorer Bearing

Spherical roller thrust bearings

d 440 - 900 mm

d 17.323 - 35.433 in



Principal dimensions						Basic load ratings		Fatigue load limit P_u	Minimum load factor A	Speed ratings		Mass	Designation
d	D	H	d	D	H	dynamic	static			Refer-ence speed	Limiting speed		
mm			in			kN		kN	–	r/min	kg	–	
440	600	95	17.323	23.622	3.740	2 070	10 400	850	10	630	1 000	78	29288
	680	145		26.772	5.709	4 490	19 300	1 560	35	480	850	180	29388 EM
	780	206		30.709	8.110	7 820	32 000	2 320	87	380	750	410	29488 EM
460	620	95	18.110	24.409	3.740	2 070	10 600	865	11	600	950	81	29292
	710	150		27.953	5.906	4 310	19 000	1 500	34	450	800	215	29392
	800	206		31.496	8.110	7 990	33 500	2 450	110	380	750	425	29492 EM
480	650	103	18.898	25.591	4.055	2 350	11 800	950	13	560	900	98	29296
	730	150		28.740	5.906	4 370	19 600	1 530	36	450	800	220	29396
	850	224		33.465	8.819	9 550	39 000	2 800	140	340	670	550	29496 EM
500	670	103	19.685	26.378	4.055	2 390	12 500	1 000	15	560	900	100	292/500
	750	150		29.528	5.906	4 490	20 400	1 560	40	430	800	235	293/500
	870	224		34.252	8.819	9 370	40 000	2 850	150	340	670	560	294/500 EM
530	710	109	20.866	27.953	4.291	3 110	15 300	1 220	22	530	850	115	292/530 EM
	800	160		31.496	6.299	5 230	23 600	1 800	53	400	750	270	293/530
	920	236		36.220	9.291	10 500	44 000	3 100	180	320	630	650	294/530 EM
560	750	115	22.047	29.528	4.528	2 990	16 000	1 220	24	480	800	140	292/560
	980	250		38.583	9.843	12 000	51 000	3 550	250	300	560	810	294/560 EM
600	800	122	23.622	31.496	4.803	3 740	18 600	1 460	33	450	700	170	292/600 EM
	900	180		35.433	7.087	7 530	34 500	2 600	110	340	630	405	293/600
	1030	258		40.551	10.157	13 100	56 000	4 000	300	280	530	845	294/600 EM
630	850	132	24.803	33.465	5.197	4 770	23 600	1 800	53	400	670	210	292/630 EM
	950	190		37.402	7.480	8 450	38 000	2 900	140	320	600	485	293/630 EM
	1 090	280		42.913	11.024	14 400	62 000	4 150	370	260	500	1 040	294/630 EM
670	900	140	26.378	35.433	5.512	4 200	22 800	1 660	49	380	630	255	292/670
	1 150	290		45.276	11.417	15 400	68 000	4 500	440	240	450	1 210	294/670 EM
710	1 060	212	27.953	41.732	8.346	9 950	45 500	3 400	200	280	500	660	293/710 EM
	1 220	308		48.031	12.126	17 600	76 500	5 000	560	220	430	1 500	294/710 EF
750	1 000	150	29.528	39.370	5.906	6 100	31 000	2 320	91	340	560	325	292/750 EM
	1 120	224		44.094	8.819	9 370	45 000	3 050	190	260	480	770	293/750
	1 280	315		50.394	12.402	18 700	85 000	5 500	690	200	400	1 650	294/750 EF
800	1 060	155	31.496	41.732	6.102	6 560	34 500	2 550	110	320	530	380	292/800 EM
	1 180	230		46.457	9.055	9 950	49 000	3 250	230	240	450	865	293/800
	1 360	335		53.543	13.189	20 200	93 000	5 850	820	190	360	2 025	294/800 EF
850	1 120	160	33.465	44.094	6.299	6 730	36 000	2 550	120	300	500	425	292/850 EM
	1 440	354		56.693	13.937	23 900	108 000	7 100	1 100	170	340	2 390	294/850 EF
900	1 520	372	35.433	59.842	14.646	26 700	122 000	7 200	1 400	160	300	2 650	294/900 EF

Spherical roller thrust bearings

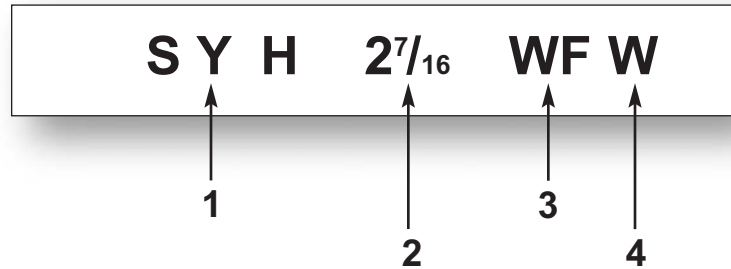
d 950 - 1600 mm

d 37.402 - 62.992 in

Principal dimensions						Basic load ratings		Fatigue load limit P_u	Minimum load factor A	Speed ratings		Mass kg	Designation
d	D	H	d	D	H	dynamic C	static C_0			Refer- ence speed	Limiting speed		
mm			in			kN		kN	–	r/min	kg	–	
950	1 250	180	37.402	49.213	7.087	8 280	45 500	3 100	200	260	430	600	292/950 EM 294/950 EF
	1 600	390		62.992	15.354	28 200	132 000	7 800	1 700	140	280	3 065	
1 060	1 400	206	41.732	55.118	8.110	10 500	58 500	3 750	330	220	360	860	292/1060 EF 294/1060 EF
	1 770	426		69.685	16.772	33 400	156 000	8 500	2 300	120	240	4 280	
1 180	1 520	206	46.457	59.842	8.110	10 900	64 000	3 750	390	220	340	950	292/1180 EF
1 250	1 800	330	49.213	70.866	12.992	24 800	129 000	7 500	1 600	130	240	2 770	293/1250 EF
1 600	2 280	408	62.992	89.764	16.063	36 800	200 000	11 800	3 800	90	160	5 375	293/1600 EF



Ball and Roller Bearing Units



Housing designations follow basic bearing designation pattern as follows:

Bearing YAR 203 (YET or YEL)
Housing SY 503 or SY 503M

Bearing YAR 206 (YET or YEL)
Housing SY 506 or SY 506 M

Bearing YAR 205 (YET, YEL)
2 bolt flange FYT 505 or FYTB 505M

Bearing YAR 207 (YET, YEL)
4 bolt flange FY 507 or FY 507M

Any 200 series bearing number will have a 500 series housing.

Note: On some newer units the housing number does not show.

Note: Housing not sold separately

1. Housing Style

FY	Flanged, four-bolt cast iron
FYM	Flanged, four-bolt cast iron, medium duty
FYT	Flanged, two-bolt cast iron
FYTM	Flanged, two-bolt cast iron, medium duty
SR	Pillow block, pressed steel, rubber insert
SY	Pillow block, cast iron
SYH	Pillow block, cast iron, low centre height
SYM	Pillow block, cast iron, medium duty
TU	Take-up, cast iron
TUM	Take-up, cast iron, medium duty

MRC prefixes

CBF	Composite 3 bolt bracket flanged unit
CPB	Composite Pillow block
CTB	Composite tapped base pillow block
CTN	Composite narrow slot take-up unit
CTW	Composite wide slot take-up unit
C2F	Composite 2 bolt flanged unit
C4F	Composite 4 bolt flanged unit
SPB	Cast stainless steel pillow block
S2F	Cast stainless steel 2 bolt flanged unit
S4F	Cast stainless steel 4 bolt flanged unit
STB	Cast stainless steel tapped base unit
TFN	Stainless steel frames for take-up units
TFW	Stainless steel frames for wide take-up
ZBT	ZmaRC coated cast iron tapped base unit
ZPB	ZmaRC coated cast iron pillow blocks
Z2F	ZmaRC coated cast iron 2 bolt flanged unit
Z4F	ZmaRC coated cast iron 4 bolt flanged unit

2. Shaft Sizes

3. Bearing codes

FM	Inner ring extended one side, eccentric locking collar (YET bearing)
RM	Inner ring extended one side, set screw lock. (YAT bearing)
TF	Inner ring extended both sides, set screw lock (YAR bearing)
TR	As TF but the bearing has rubberized flingers
WF	Inner ring extended both sides, eccentric locking collar (YEL-2F bearing)

4. Suffix

C	Cylindrical outer ring
PF	ConCentra unit (integral sleeve)
PF/AH	ConCentra unit (integral sleeve) for air handling applications
/AH	Air handling units mostly using YAR bearing type (TF/AH)
U	No locking collar
W	No relubrication feature

MRC suffixes

SS	Stainless steel bearing
ZM	ZmaRC coated bearing (Zinc)

Ball and roller bearing units

Speed Ratings

The speed at which Ball Bearing Units can operate depends on the means by which they are located on the shaft and also the type of seal. For bearings of series YAR, YEL, and YET, the speeds are limited by the fit on the shaft; the looser the fit the lower the speed. Recommended maximum values are given in **table 1**.

Bearings with Multi-Function seals should not be operated at speeds in excess of 60% of those quoted in the table, particularly when shafts having an h6 tolerance are used.

The speed ratings of bearings of series 17262(00)-2RS1 and 17263(00)-2RS1 are the same as for standard SKF sealed deep groove ball bearings. The ratings for these series are also given in the table.

Table 1 Speed Ratings for insert bearings							
Basic Bearing Size	Speed ratings for bearings of series: YAR, YEL, YET with shaft tolerance					17262(00)	17263(00)
	h6	h7	h8	h9	h11		
	rpm					rpm	
202						13 000	12 000
203	9 500	6 000	4 300	1 500	950	12 000	11 000
204	8 500	5 300	3 800	1 300	850	10 000	9 500
205	7 000	4 500	3 200	1 000	700	8 500	7 500
206	6 300	4 000	2 800	900	630	7 500	6 300
207	5 300	3 400	2 200	750	530	6 300	6 000
208	4 800	3 000	1 900	670	480	5 600	5 000
209	4 300	2 600	1 700	600	430	5 000	4 500
210	4 000	2 400	1 600	560	400	4 800	4 300
211	3 600	2 000	1 400	500	360	4 300	3 800
212	3 400	1 900	1 300	480	340	4 000	3 400
213	3 000	1 700	1 100	430	300	3 600	3 200
214	2 800	1 600	1 000	400	280	3 400	3 000
215	2 600	1 500	930	380	260	3 200	2 800
216	2 400	1 400	900	360	240	3 000	2 600

Internal Clearance

SKF inch series YAR, YEL, and YET, wide inner ring bearings, are produced as standard with internal clearance according to **table 2**. The radial internal clearance of series 17262(00)-2RS1 and 17263(00)-2RS1 correspond to those for Normal radial internal clearance for deep groove ball bearings and are indicated in **table 2**.

Table 2 Radial internal clearance of bearings of series: YAR, YEL, YET				
Basic Bearing Size	17262(00)		17263(00)	
	min	max	min	max
	0.0001 in		0.0001 in	
203	4	10	1	7
204-206	5	11	2	8
207-208	5	13	2	8
209-210	6	14	2	9
211-213	7	17	■	■
214-216	8	20	■	■

Shaft Tolerances

For normal operating conditions, shaft seatings machined to tolerance h6 (see table 1) are recommended for YAR, YEL, YET and YAT wide inner ring bearings. This fit is sufficient for most applications and allows the bearing to operate at its full speed rating while still allowing for slip fit mounting. When the "load ratio" C/P < 6.6, a press fit is required. For light loads and slow speeds, tolerance h8 is sufficient. For

very simple applications, tolerances h9 to h11 can be used. **NOTE: WHEN TOLERANCES OTHER THAN h6 ARE USED, SPEEDS MUST BE LIMITED ACCORDING TO TABLE 1, PAGE 212.**

For standard inner ring bearings of series 17262(00)-2RS1 and 17263(00)-2RS1, the tolerances recommended for standard deep groove ball bearings should be used. This

means that for bearings with bore diameters up to and including 17 mm, the shaft seatings should be machined to tolerance J6 where loads are light and j5 for normal and heavy loads. For larger bearings the recommended tolerances are k5 and k6. Tolerance k6 can be used where a reduction in bearing clearance is not important and where speeds are low.

Table 1 ISO Shaft limits												
Shaft diameter		Shaft diameter tolerances										
nominal	incl.	h11 high	low	h10 high	low	h9 high	low	IT5	h8 high	low	h7 high	low
mm		µm										
10	18	0	-110	0	-70	0	-43	8	0	-27	0	-18
18	30	0	-130	0	-84	0	-52	9	0	-33	0	-21
30	50	0	-160	0	-100	0	-62	11	0	-39	0	-25
50	80	0	-190	0	-120	0	-74	13	0	-46	0	-30
80	100	0	-220	0	-140	0	-87	15	0	-54	0	-35
Shaft Diameter		Shaft diameter tolerance										
nominal	incl.	h6 high	low	j5 high	low	j6 high	low	k5 high	low	k6 high	low	
mm		µm										
10	18	0	-11	5	-3	8	-3	9	1	12	1	
18	30	0	-13	5	-4	9	-4	11	2	15	2	
30	50	0	-16	6	-5	11	-5	13	2	18	2	
50	80	0	-19	6	-7	12	-7	15	2	21	2	
80	120	0	-22	6	-9	13	-9	18	3	25	3	

Table 2 Set Screw Torque and Permissible Axial Load			
Shaft Sizes in	Set screw (No.) Size	Torque in-lbs	Permissible Axial Load lbs
17/16 to 23/16	(2) 3/8" - 24	290	515
27/16 to 3 1/2	(2) 1/2" - 20	620	900
311/16 to 4	(2) 5/8" - 18	1325	1200
47/16 to 4 15/16	(4) 5/8" - 18	1325	2400

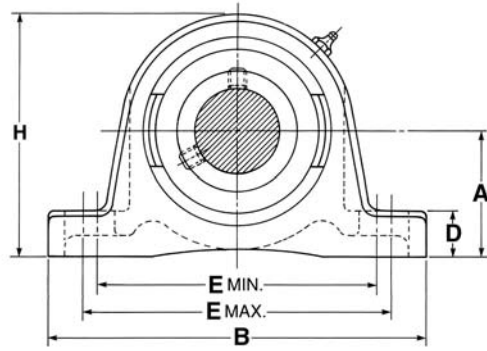
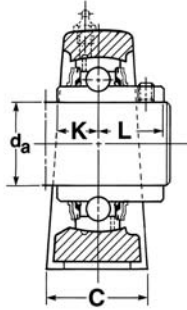
Table 3 ConCentra Shaft diameter tolerance	
Up to 1 1/2"	+0.000 to 0.003"
Up to 35mm	+0 to -76µm
1 11/16" to 2 1/2"	+0.000 to -0.004"
40mm to 65mm	+0 to -101µm
2 11/16" to 4"	+0.000 to -0.005"
70mm to 100mm	+0 to -125µm

Ball bearing units

Pillow Block / Standard Duty

SY-TF

NP, YAS, P2BSC equivalent
 Cast-iron housing
 Standard center height
 Set screw locking
 Wide inner ring
 M-Seal & Flingers



How to Order	SY 1 TF
Option	Specify
Multi-function Seal	SY 1TR
Non-Relubricatable	SY 1 TFW

For bearing information see page 242; for seal speed limits see page 214.

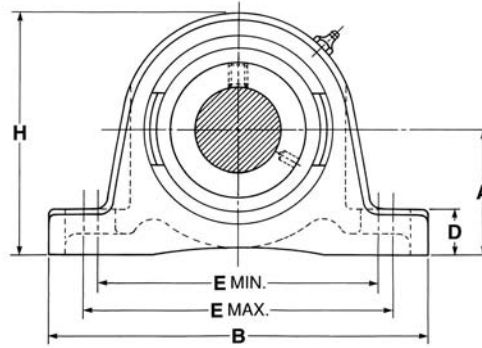
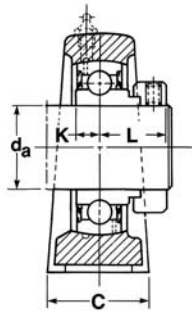
Shaft Dia. d _a	Pillow Block designation	Bearing designation	Dynamic capacity										Bolts (No. req'd)	Mass lbs
			C	A	B	C	D	E Min	E Max	H	K	L		
1/2 5/8	SY1/2 TF SY 5/8 TF	YAR 203-008-2F YAR 203-010-2F	2 150	13/16	5	1 1/4	9/16	3 15/32	4 3/16	2 7/32	1 5/32	5/8	(2)-3/8	1.3 1.3
3/4	SY 3/4 TF	YAR 204-012-2F	2 860	1 5/16	5	1 1/4	9/16	3 15/32	4 3/16	2 17/32	1/2	2 3/32	(2)-3/8	1.4
13/16 7/8 15/16 1	SY 13/16 TF SY 7/8 TF SY 15/16 2F SY 1 TF	YAR 205-013-2F YAR 205-014-2F YAR 205-015-2F YAR 205-100-2F	3 150	1 7/16	5 1/8	1 13/32	5/8	3 11/16	4 11/32	2 3/4	9/16	2 5/32	(2)-3/8	1.8 1.8 1.7 1.7
1 1/16 1 1/8 1 3/16 1 1/4	SY 1 1/16 TF SY 1 1/8 TF SY 1 3/16 TF SY 1 1/4 ATF	YAR 206-101-2F YAR 206-102-2F YAR 206-103-2F YAR 206-104-2F	4 390	1 11/16	6	1 9/16	2 1/32	4 1/4	5	3 7/32	5/8	7/8	(2)-1/2	3.0 2.9 2.9 2.8
1 1/4 1 5/16 1 3/8 1 7/16	SY 1 1/4 TF SY 1 5/16 TF SY 1 3/8 TF SY 1 7/16 TF	YAR 207-104-2F YAR 207-105-2F YAR 207-106-2F YAR 207-107-2F	5 740	1 7/8	6 5/16	1 25/32	3/4	4 11/16	5 1/4	3 21/32	1 1/16	1	(2)-1/2	3.6 3.5 3.5 3.4
1 1/2	SY 1 1/2 TF	YAR 208-108-2F	6 910	1 15/16	6 29/32	1 29/32	3/4	4 15/16	5 3/4	3 29/32	3/4	1 3/16	(2)-1/2	4.3
1 5/8 1 11/16 1 3/4	SY 1 5/8 TF SY 1 11/16 TF SY 1 3/4 TF	YAR 209-110-2F YAR 209-111-2F YAR 209-112-2F	7 470	2 1/8	7 3/8	1 7/8	1 13/16	5 5/16	6	4 7/32	3/4	1 3/16	(2)-1/2	5.4 5.3 5.2
1 15/16	SY 1 15/16 TF	YAR 210-115-2F	7 900	2 1/4	8	2 1/8	7/8	5 7/8	6 1/2	4 1/2	3/4	1 9/32	(2)-5/8	6.3
2 2 3/16	SY 2 TF SY 2 3/16 TF	YAR 211-200-2F YAR 211-203-2F	9 810	2 1/2	8 5/8	2 3/16	1 15/16	6 3/8	7 1/8	5	7/8	1 15/16	(2)-5/8	8.5 8.0
2 1/4 2 7/16	SY 2 1/4 TF SY 2 7/16 TF	YAR 212-204-2F YAR 212-207-2F	11 900	2 3/4	9 1/2	2 1/2	1	7 1/16	7 15/16	5 7/16	1	1 9/16	(2)-5/8	11.5 11.0
2 1/2 2 11/16	SY 2 1/2 TF SY 2 11/16 TF	YAR 213-208-2F YAR 213-211-2F	12 900	3	10 1/8	2 9/16	1 15/32	7 15/32	8 1/2	5 29/32	1	1 11/16	(2)-3/4	14.0 13.5
2 3/4 2 15/16	SY 2 3/4 TF SY 2 15/16 TF	YAR 215-212-2F YAR 215-215-2F	14 900	3 1/4	10 3/4	2 25/32	1 1/4	8	9	6 1/2	1 1/16	1 13/16	(2)-3/4	16.5 16.0

Ball bearing units

Pillow Block / Standard Duty

SY-FM

VAS, P2BSXV, P3-W200U equivalent
 Cast-iron housing
 Standard center height
 Eccentric locking
 Narrow inner ring
 M-Seal



How to Order **SY 1 FM**

Option Specify

Non-Relubricatable SY 1 FMW

For bearing information see page 240; for seal speed limits see page 214.

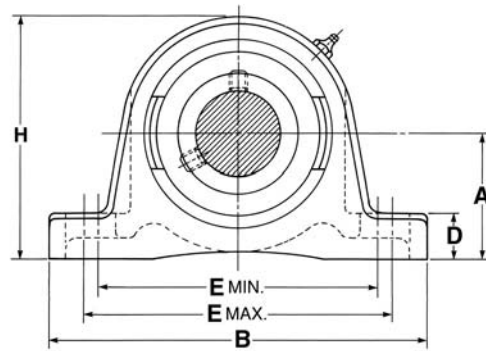
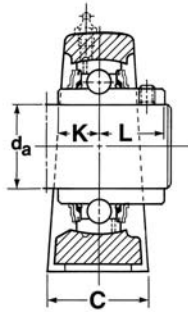
Shaft Dia. d_a	Pillow Block Designation	Bearing designation	Dynamic capacity										Bolts (No. req'd)	Mass lbs
			C	A	B	C	D	E Min	E Max	H	K	L		
in			lbf											lbs
1/2	SY 1/2 FM	YET 203-008	2 150	13/16	5	1 1/4	9/16	3 15/32	4 3/16	2 7/32	1/4	7/8	(2)-3/8	1.3
5/8	SY 5/8 FM	YET 203-010												1.3
3/4	SY 3/4 FM	YET 204-012	2 860	15/16	5	1 1/4	9/16	3 15/32	4 3/16	2 17/32	9/32	15/16	(2)-3/8	1.5
13/16	SY 13/16 FM	YET 205-013	3 150	17/16	5 1/8	1 13/32	5/8	3 11/16	4 11/32	2 3/4	9/32	15/16	(2)-3/8	1.9
7/8	SY 7/8 FM	YET 205-014												1.8
15/16	SY 15/16 FM	YET 205-015												1.8
1	SY 1 FM	YET 205-100												1.7
1 1/16	SY 1 1/16 FM	YET 206-101	4 390	1 11/16	6	1 9/16	2 1/32	4 1/4	5	3 7/32	1 11/32	1 1/16	(2)-1/2	3.0
1 1/8	SY 1 1/8 FM	YET 206-102												3.0
1 3/16	SY 1 3/16 FM	YET 206-103												2.9
1 1/4	SY 1 1/4 AFM	YET 206-104												2.9
1 1/4	SY 1 1/4 FM	YET 207-104	5 740	1 7/8	6 5/16	1 25/32	3/4	4 11/16	5 1/4	3 21/32	3/8	15/32	(2)-1/2	3.7
15/16	SY 15/16 FM	YET 207-105												3.7
13/8	SY 13/8 FM	YET 207-106												3.7
1 7/16	SY 1 7/16 FM	YET 207-107												3.6
1 1/2	SY 1 1/2 FM	YET 208-108	6 910	1 15/16	6 29/32	1 29/32	3/4	4 15/16	5 3/4	3 29/32	7/16	19/32	(2)-1/2	4.5
15/8	SY 1 5/8 FM	YET 209-110	7 470	2 1/8	7 3/8	1 7/8	13/16	5 5/16	6	4 7/32	7/16	19/32	(2)-1/2	5.5
1 11/16	SY 1 11/16 FM	YET 209-111												5.4
1 3/4	SY 1 3/4 FM	YET 209-112												5.3
1 15/16	SY 1 15/16 FM	YET 210-115	7 900	2 1/4	8	2 1/8	7/8	5 7/8	6 1/2	4 1/2	7/16	19/32	(2)-5/8	6.4
2	SY 2 FM	YET 211-200	9 810	2 1/2	8 5/8	2 3/16	15/16	6 3/8	7 1/8	5	15/32	17/16	(2)-5/8	8.5
2 3/16	SY 2 3/16 FM	YET 211-203												8.2

Ball bearing units

Pillow Block / Medium Duty

SYM-TF

MP, P2BSCM, C-35 equivalent
 Cast-iron housing
 Set screw locking
 Wide inner ring
 M-Seal & Flingers



How to Order **SYM 17/16 TF**

Option Specify

Multi-function Seal SYM 17/16 TR
 Non-Relubricatable SYM 17/16 TFW

For seal speed limits see page 214.

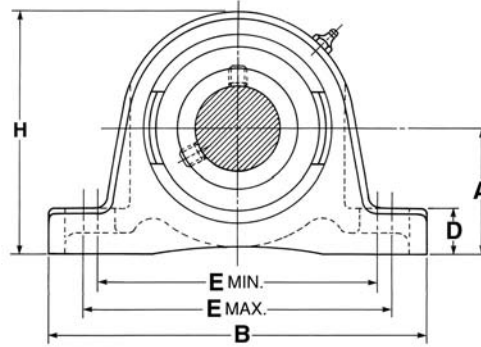
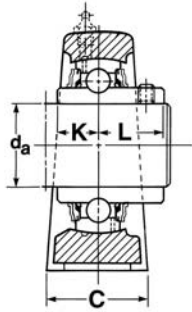
Shaft Dia. d_a	Pillow Block designation	Bearing designation	Dynamic capacity		B	C	D	E Min	E Max	H	K	L	Bolts (No. req'd)	Mass lbs
			C	A										
in			lbf											
17/16	SYM 17/16 TF	YAR 208-107-2F	6 910	2 ¹ / ₈	7 ³ / ₈	13/4	13/16	55/16	6	47/32	3/4	13/16	(2)-1/2	4.4
11/2	SYM 11/2 TF	YAR 209-108-2F	7 470	2 ¹ / ₈	7 ³ / ₈	17/8	13/16	55/16	6	47/32	3/4	13/16	(2)-1/2	5.5
111/16 13/4	SYM 111/16 TF SYM 13/4 TF	YAR 210-111-2F YAR 210-112-2F	7 900	2 ¹ / ₄	8	2 ¹ / ₈	7/8	57/8	6 ¹ / ₂	4 ¹ / ₂	3/4	19/32	(2)-5/8	6.6 6.5
115/16	SYM 115/16 TF	YAR 211-115-2F	9 810	2 ¹ / ₂	8 ⁵ / ₈	2 ³ / ₆	15/16	6 ³ / ₈	7 ¹ / ₈	5	7/8	15/16	(2)-5/8	8.6
23/16	SYM 23/16 TF	YAR 212-203-2F	11 900	2 ³ / ₄	9 ¹ / ₂	2 ¹ / ₂	1	7 ¹ / ₁₆	7 ¹⁵ / ₁₆	57/16	1	19/16	(2)-5/8	11.5
27/16 21/2	SYM 27/16 TF SYM 21/2 TF	YAR 214-207-2F YAR 214-208-2F	14 000	3	10 ¹ / ₈	2 ⁵ / ₈	1 ¹ / ₂	7 ¹ / ₂	8 ¹ / ₂	6	13/16	19/16	(2)-3/4	15.5 15.0
211/16	SYM 211/16 TF	YAR 215-211-2F	14 900	3 ¹ / ₂	12	3	17/8	8 ¹ / ₂	9 ¹ / ₂	6 ³¹ / ₃₂	11/16	113/16	(2)-7/8	16.5
215/16 3	SYM 215/16 TF SYM 3 TF	YAR 215-215-2F YAR 216-300-2F	16 400	3 ¹ / ₂	12	3	17/8	8 ¹ / ₂	9 ¹ / ₂	6 ³¹ / ₃₂	13/16	17/8	(2)-7/8	19.5 19.0

Ball bearing units

Pillow Block /Standard Duty

SYH-TF

NPL, YAK, P2BSCB equivalent
Cast-iron housing
Low center height
Set screw locking
Wide inner ring
M-Seal & Flingers



How to Order	SYH 1 TF
Option	Specify
Multi-function Seal	SYH 1 TR
Non-Relubricatable	SYH 1 TFW

For bearing information see page 242; for seal speed limits see page 214.

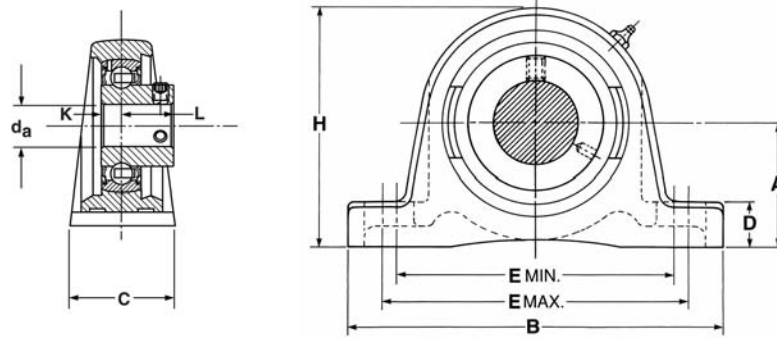
Shaft Dia. d_a	Pillow Block Designation	Bearing designation	Dynamic capacity										Bolts (No. req'd)	Mass lbs
			C	A	B	C	D	E Min	E Max	H	K	L		
1/2	SYH 1/2 TF	YAR 203-008-2F	2 150	11/16	5	1 1/4	7/16	3 15/32	4 3/16	2 3/32	1 5/32	5/8	(2)-3/8	1.3
5/8	SYH 5/8 TF	YAR 203-010-2F												1.3
3/4	SYH 3/4 TF	YAR 204-012-2F	2 860	1 1/4	5	1 1/4	1/2	3 15/32	4 3/16	2 15/32	1/2	2 3/32	(2)-3/8	1.4
13/16	SYH 13/16 TF	YAR 205-013-2F	3 150	1 5/16	5 1/8	1 13/32	1/2	3 11/16	4 11/32	2 5/8	9/16	2 5/32	(2)-3/8	1.8
7/8	SYH 7/8 TF	YAR 205-014-2F												1.8
15/16	SYH 15/16 TF	YAR 205-015-2F												1.7
1	SYH 1 TF	YAR 205-100-2F												1.7
1 1/16	SYH 1 1/16 TF	YAR 206-101-2F	4 390	1 9/16	6	1 9/16	1 7/32	4 1/4	5	3 3/32	5/8	7/8	(2)-1/2	3.0
1 1/8	SYH 1 1/8 TF	YAR 206-102-2F												2.9
1 3/16	SYH 1 3/16 TF	YAR 206-103-2F												2.9
1 1/4	SYH 1 1/4 ATF	YAR 206-104-2F												2.8
1 1/4	SYH 1 1/4 TF	YAR 207-104-2F	5 740	1 13/16	6 5/16	1 25/32	1 1/16	4 11/16	5 1/4	3 19/32	1 1/16	1	(2)-1/2	3.6
1 5/16	SYH 1 5/16 TF	YAR 207-105-2F												3.5
1 3/8	SYH 1 3/8 TF	YAR 207-106-2F												3.5
1 7/16	SYH 1 7/16 TF	YAR 207-107-2F												3.4
1 1/2	SYH 1 1/2 TF	YAR 208-108-2F	6 910	1 15/16	6 29/32	1 29/32	3/4	4 15/16	5 3/4	3 29/32	3/4	1 3/16	(2)-1/2	4.3
1 5/8	SYH 1 5/8 TF	YAR 209-110-2F	7 470	2 1/16	7 3/8	1 7/8	1 3/16	5 5/16	6	4 7/32	3/4	1 3/16	(2)-1/2	5.4
1 11/16	SYH 1 11/16 TF	YAR 209-111-2F												5.3
1 3/4	SYH 1 3/4 TF	YAR 209-112-2F												5.2
1 15/16	SYH 1 15/16 TF	YAR 210-115-2F	7 900	2 3/16	8	2 1/8	1 3/16	5 7/8	6 1/2	4 7/16	3/4	1 9/32	(2)-5/8	6.3
2	SYH 2 TF	YAR 211-200-2F	9 810	2 7/16	8 5/8	2 3/16	1 5/16	6 3/8	7 1/8	5	7/8	1 5/16	(2)-5/8	8.5
2 3/16	SYH 2 3/16 TF	YAR 211-203-2F												8.0
2 1/4	SYH 2 1/4 TF	YAR 212-204-2F	11 900	2 11/16	9 1/2	2 1/2	1	7 1/16	7 15/16	5 7/16	1	1 9/16	(2)-5/8	11.5
2 7/16	SYH 2 7/16 TF	YAR 212-207-2F												11.0

Ball bearing units

Pillow Block/ Standard Duty

SYH - RM

VPL, P3-S200E, SAK equivalent
 Cast-Iron Housing
 Low Center Height
 Set Screw Locking
 Narrow Inner Ring
 M-Seal



For bearing information see page 244; for seal speed limits see page 214.

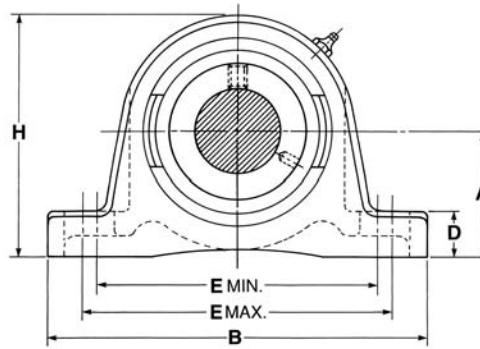
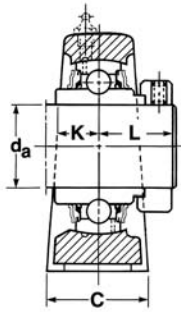
Shaft Dia. d _a	Pillow Block Designation	Bearing designation	Dynamic capacity										Bolts (No. req'd)	Mass lbs
			C	A	B	C	D	E Min	E Max	H	K	L		
in			lbf											lbs
1/2	SYH 1/2 RM	YAT 203-008	2 150	11/16	5	11/4	7/16	315/32	43/16	23/32	1/4	5/8	(2)-3/8	1.3
5/8	SYH 5/8 RM	YAT 203-010												1.3
3/4	SYH 3/4 RM	YAT 204-012	2 860	11/4	5	11/4	1/2	315/32	43/16	215/32	9/32	23/32	(2)-3/8	1.4
7/8	SYH 7/8 RM	YAT 205-014	3 150	15/16	5 1/8	113/32	1/2	311/16	411/32	25/8	5/16	25/32	(2)-3/8	1.8
15/16	SYH 15/16 RM	YAT 205-015												1.7
1	SYH 1 RM	YAT 205-100												1.7
1 1/8	SYH 1 1/8 RM	YAT 206-102	4 390	19/16	6	19/16	17/32	4 1/4	5	33/32	23/64	7/8	(2)-1/2	
13/16	SYH 13/16 RM	YAT 206-103												2.9
1 1/4	SYH 1 1/4 ARM	YAT 206-104												2.8
1 1/4	SYH 1 1/4 RM	YAT 207-104	5 740	113/16	6 5/16	125/32	11/16	4 11/16	5 1/4	3 19/32	3/8	1	(2)-1/2	3.6
13/8	SYH 13/8 RM	YAT 207-106												3.5
17/16	SYH 17/16 RM	YAT 207-107												3.4
1 1/2	SYH 1 1/2 RM	YAT 208-108	6 910	1 15/16	6 29/32	129/32	3/4	4 15/16	5 3/4	3 29/32	29/64	1 1/8	(2)-1/2	4.3
1 5/8	SYH 1 5/8 RM	YAT 209-110	7 470	2 1/16	7 3/8	17/8	13/16	5 5/16	6	4 7/32	7/16	13/16	(2)-1/2	5.4
1 11/16	SYH 1 11/16 RM	YAT 209-111												5.3
1 3/4	SYH 1 3/4 RM	YAT 209-112												5.2
1 15/16	SYH 1 15/16 RM	YAT 210-115	7 900	2 3/16	8	2 1/8	13/16	5 7/8	6 1/2	4 7/16	7/16	19/32	(2)-5/8	6.3
2	SYH 2 RM	YAT 211-200	9 810	2 7/16	8 5/8	2 3/16	7/8	6 3/8	7 1/8	5	1/2	19/32	(2)-5/8	8.5
2 3/16	SYH 2 3/16 RM	YAT 211-203												8.0
2 1/4	SYH 2 1/4 RM	YAT 212-204	11 900	2 11/16	9 1/2	2 1/2	1	7 1/16	7 15/16	5 7/16	17/32	1 3/8	(2)-5/8	11.5
2 7/16	SYH 2 7/16 RM	YAT 212-207												11.0
2 15/16	SYH 2 15/16 RM	YAT 215-215	14 900	3 5/16	10 5/8	2 3/4	15/16	8	9	6 9/16	9/16	1 35/64	(2)-3/4	17.12

Ball bearing units

Pillow Block / Standard Duty

SYH-WF

RAK, P2BSXRB, PL3-Y200N equivalent
 Cast-iron housing
 Low center height
 Eccentric locking
 Wide inner ring
 M-Seal & Flingers



How to Order **SYH 1 WF**

Option Specify

Multi-function Seal SYH 1 WR
 Non-Relubricatable SYH 1 WFW

For bearing information see page 241; for seal speed limits see page 214.

Shaft Dia. d _a	Pillow Block designation	Bearing designation	Dynamic capacity											Bolts (No. req'd)	Mass lbs
			C	A	B	C	D	E Min	E Max	H	K	L			
in			lbf												lbs
3/4	SYH 3/4 WF	YEL 204-012-2F	2 860	1 1/4	5	1 1/4	1/2	3 15/32	4 3/16	2 15/32	1 1/16	1 1/32	(2)-3/8	1.5	
13/16	SYH 13/16 WF	YEL 205-013-2F	3 150	1 5/16	5 1/8	1 13/32	1/2	3 11/16	4 11/32	2 5/8	1 1/16	1 1/16	(2)-3/8	1.9	
7/8	SYH 7/8 WF	YEL 205-014-2F												1.9	
15/16	SYH 15/16 WF	YEL 205-015-2F												1.9	
1	SYH 1 WF	YEL 205-100-2F												1.9	
1 1/16	SYH 1 1/16 WF	YEL 206-101-2F	4 390	1 9/16	6	1 9/16	17/32	4 1/4	5	3 3/32	2 3/32	1 3/16	(2)-1/2	3.2	
1 1/8	SYH 1 1/8 WF	YEL 206-102-2F												3.1	
1 3/16	SYH 1 3/16 WF	YEL 206-103-2F												3.0	
1 1/4	SYH 1 1/4 WF	YEL 207-104-2F	5 740	1 13/16	6 5/16	1 25/32	1 1/16	4 11/16	5 1/4	3 19/32	3/4	1 9/32	(2)-1/2	4.0	
1 5/16	SYH 1 5/16 WF	YEL 207-105-2F												3.9	
1 3/8	SYH 1 3/8 WF	YEL 207-106-2F												3.9	
1 7/16	SYH 1 7/16 WF	YEL 207-107-2F												3.7	
1 1/2	SYH 1 1/2 WF	YEL 208-108-2F	6 910	1 15/16	6 29/32	1 29/32	3/4	4 15/16	5 3/4	3 29/32	2 7/32	1 3/8	(2)-1/2	4.7	
1 5/8	SYH 1 5/8 WF	YEL 209-110-2F	7 470	2 1/16	7 3/8	1 7/8	1 3/16	5 5/16	6	4 7/32	2 7/32	1 3/8	(2)-1/2	5.7	
1 11/16	SYH 1 11/16 WF	YEL 209-111-2F												5.6	
1 3/4	SYH 1 3/4 WF	YEL 209-112-2F												5.5	
1 15/16	SYH 1 15/16 WF	YEL 210-115-2F	7 900	2 3/16	8	2 1/8	1 3/16	5 7/8	6 1/2	4 7/16	3 1/32	1 1/2	(2)-5/8	6.7	
2	SYH 2 WF	YEL 211-200-2F	9 810	2 7/16	8 5/8	2 3/16	1 5/16	6 3/8	7 1/8	5	1 3/32	1 23/32	(2)-5/8	9.2	
2 3/16	SYH 2 3/16 WF	YEL 211-203-2F												8.7	
2 1/4	SYH 2 1/4 WF	YEL 212-204-2F	11 900	2 11/16	9 1/2	2 1/2	1	7 1/16	7 15/16	5 7/16	1 7/32	1 27/32	(2)-5/8	12.0	
2 7/16	SYH 2 7/16 WF	YEL 212-207-2F												11.5	
2 15/16	SYH 2 15/16 WF	YEL 215-215-2F	14 900	3 5/16	10 5/8	2 3/4	1 5/16	8	9	6 35/64	1 15/32	2 5/32	(2)-3/4	17.12	

Ball bearing units

Pillow Block / Standard Duty

SYH-FM

VAK, P2BSXVB, PL3-W200U equivalent

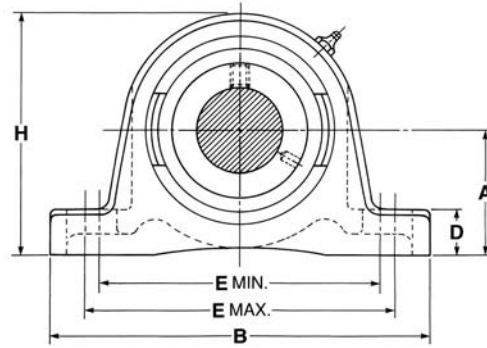
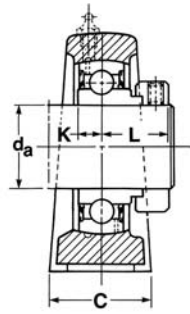
Cast-iron housing

Low center height

Eccentric locking

Narrow inner ring

M-Seal



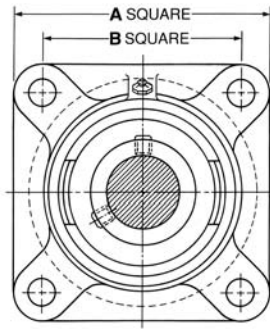
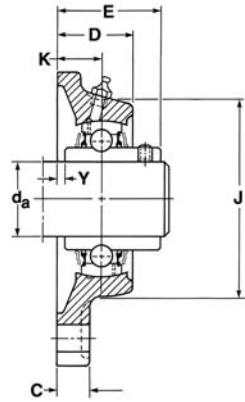
How to Order SYH 1 FM

Option Specify

Non-Relubricatable SYH 1 FMW

For bearing information see page 240; for seal speed limits see page 214.

Shaft Dia. d _a	Pillow Block designation	Bearing designation	Dynamic capacity										Bolts (No. req'd)	Mass lbs	
			C	A	B	C	D	E Min	E Max	H	K	L			
in			lbf												
3/4	SYH 3/4 FM	YET 204-012	2 860	1 1/4	5	1 1/4	1/2	3 15/32	4 3/16	2 15/32	9/32	1 5/16	(2)-3/8	1.5	
13/16	SYH 13/16 FM	YET 205-013	3 150	1 5/16	5 1/8	1 13/32	1/2	3 11/16	4 11/32	2 5/8	9/32	1 5/16	(2)-3/8	1.9	
7/8	SYH 7/8 FM	YET 205-014												1.8	
15/16	SYH 15/16 FM	YET 205-015												1.8	
1	SYH 1 FM	YET 205-100												1.7	
1 1/16	SYH 1 1/16 FM	YET 206-101	4 390	1 9/16	6	1 9/16	1 7/32	4 1/4	5	3 3/2	1 1/32	1 1/6	(2)-1/2	3.0	
1 1/8	SYH 1 1/8 FM	YET 206-102												3.0	
1 3/16	SYH 1 3/16 FM	YET 206-103												2.9	
1 1/4	SYH 1 1/4 AFM	YET 206-104												2.9	
1 1/4	SYH 1 1/4 FM	YET 207-104	5 740	1 13/16	6 5/16	1 25/32	1 1/16	4 11/16	5 1/4	3 19/32	3/8	1 5/32	(2)-1/2	3.7	
1 5/16	SYH 1 5/16 FM	YET 207-105												3.7	
1 3/8	SYH 1 3/8 FM	YET 207-106												3.7	
1 7/16	SYH 1 7/16 FM	YET 207-107												3.6	
1 1/2	SYH 1 1/2 FM	YET 208-108	6 910	1 15/16	6 29/32	1 29/32	3/4	4 15/16	5 3/4	3 29/32	7/16	1 9/32	(2)-1/2	4.5	
1 5/8	SYH 1 5/8 FM	YET 209-110	7 470	2 1/16	7 3/8	1 7/8	1 3/16	5 5/16	6	4 7/32	7/16	1 9/32	(2)-1/2	5.5	
1 11/16	SYH 1 11/16 FM	YET 209-111												5.4	
1 3/4	SYH 1 3/4 FM	YET 209-112												5.3	
1 15/16	SYH 1 15/16 FM	YET 210-115	7 900	2 3/16	8	2 1/8	1 3/16	5 7/8	6 1/2	4 7/16	7/16	1 9/32	(2)-5/8	6.4	
2	SYH 2 FM	YET 211-200	9 810	2 7/16	8 5/8	2 3/16	1 5/16	6 3/8	7 1/8	5	1 5/32	1 7/16	(2)-5/8	8.5	
2 3/16	SYH 2 3/16 FM	YET 211-203												8.2	



Ball bearing units

Flange / Standard Duty

FY-TF
 SF, YCJ, F4BSC equivalent
 Cast-iron flange
 Four bolt mounting
 Set screw locking
 Wide inner ring
 M-Seal & Flingers

How to Order	FY 1 TF
Option	Specify
Multi-function Seal	FY 1 TR
Non-Relubricatable	FY 1 TFW

For bearing information see page 242; for seal speed limits see page 214.

Shaft Dia. d_a	Pillow Block designation	Bearing designation	Dynamic capacity										Bolts (No. req'd)	Mass lbs
			C	A	B	C	D	E	J	K	Y			
1/2	FY 1/2 TF	YAR 208-008 2F	2 150	3	2 1/8	13/32	15/16	17/32	2 1/8	19/32	1/8	(4)-3/8	1.3	
5/8	FY 5/8 TF	YAR 203-010-2F											1.3	
3/4	FY 3/4 TF	YAR 204-012-2F	2 860	3 3/8	2 1/2	5/8	1 1/8	1 15/32	2 3/8	3/4	1/4	(4)-3/8	1.3	
13/16	FY 13/16 TF	YAR 205-013-2F	3 150	3 3/4	2 3/4	5/8	1 3/16	1 17/32	2 3/4	3/4	3/16	(4)-7/16	1.9	
7/8	FY 7/8 TF	YAR 205-014-2F											1.9	
15/16	FY 15/16 TF	YAR 205-015-2F											1.9	
1	FY 1 TF	YAR 205-100-2F											1.8	
1 1/16	FY 1 1/16 TF*	YAR 206-101-2F	4 390	4 1/4	3 1/4	19/32	1 9/32	1 21/32	3 1/4	25/32	5/32	(4)-7/16	2.6	
1 1/8	FY 1 1/8 TF	YAR 206-102-2F											2.6	
1 3/16	FY 1 3/16 TF	YAR 206-103-2F											2.6	
1 1/4	FY 1 1/4 ATF	YAR 206-104-2F											2.6	
1 1/4	FY 1 1/4 TF	YAR 207-104-2F	5 740	4 5/8	3 5/8	5/8	1 3/8	1 113/16	3 5/8	1 3/16	1/8	(4)-1/2	3.3	
1 5/16	FY 1 5/16 TF	YAR 207-105-2F											3.3	
1 3/8	FY 1 3/8 TF	YAR 207-106-2F											3.2	
1 7/16	FY 1 7/16 TF	YAR 207-107-2F											3.2	
1 1/2	FY 1 1/2 TF	YAR 208-108-2F	6 910	5 1/8	4	2 1/32	1 17/32	2 3/32	4	29/32	5/32	(4)-1/2	4.4	
1 5/8	FY 1 5/8 TF	YAR 209-110-2F	7 470	5 3/8	4 1/8	1 11/16	1 19/32	2 3/32	4 1/4	29/32	5/32	(4)-9/16	5.0	
1 11/16	FY 1 11/16 TF	YAR 209-111-2F											4.9	
1 3/4	FY 1 3/4 TF	YAR 209-112-2F											4.7	
1 15/16	FY 1 15/16 TF	YAR 210-115-2F	7 900	5 5/8	4 3/8	25/32	1 3/4	2 5/16	4 5/8	1 11/32	9/32	(4)-9/16	5.6	
2	FY 2 TF	YAR 211-200-2F	9 810	6 3/8	5 1/8	27/32	1 7/8	2 15/32	5	1 5/32	9/32	(4)-5/8	7.5	
2 3/16	FY 2 3/16 TF	YAR 211-203-2F											7.3	
2 1/4	FY 2 1/4 TF	YAR 212-204-2F	11 900	6 7/8	5 5/8	27/32	2 5/32	2 27/32	5 1/2	1 9/32	9/32	(4)-5/8	9.9	
2 7/16	FY 2 7/16 TF	YAR 212-207-2F											9.4	
2 1/2	FY 2 1/2 TF	YAR 213-208-2F	12 900	7 3/8	5 7/8	1 11/16	2 1/32	2 13/16	6	1 1/8	1/8	(4)-5/8	11.5	
2 11/16	FY 2 11/16 TF	YAR 213-211-2F											10.5	
2 3/4	FY 2 3/4 MTF	YAR 215-212-2F	14 900	7 3/4	6	3/4	2 9/16	3 7/16	6 3/8	1 5/8	1/8	(4)-3/4	14.0	
2 15/16	FY 2 15/16 MTF	YAR 215-215-2F											13.5	

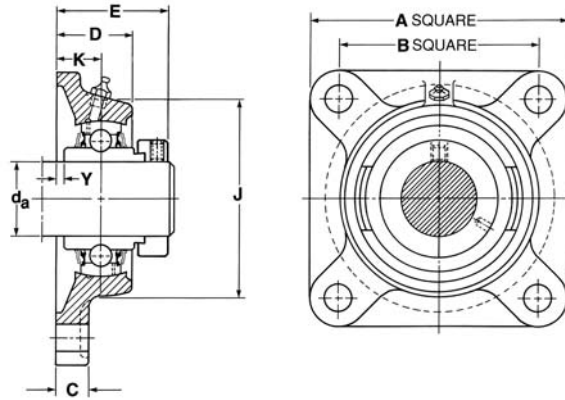
*Consult SKF Canada prior to design change or order placement.

Ball bearing units

Flange / Standard Duty

FY-WF

RCJ, F4BSXR, F3-Y200N equivalent
 Cast-iron flange
 Four bolt mounting
 Eccentric locking
 Wide inner ring
 M-Seal & Flingers



How to Order	FY 1 WF
Option	Specify
Multi-function Seal	FY 1 WR
Non-Relubricatable	FY 1 WFW

For bearing information see page 241; for seal speed limits see page 214.

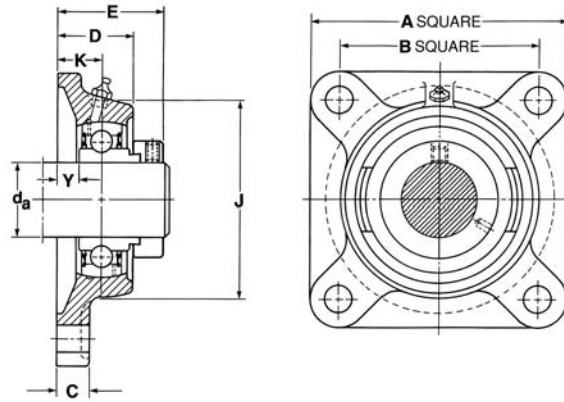
Shaft Dia. d _a	Pillow Block designation	Bearing designation	Dynamic capacity		B	C	D	E	J	K	Y	Bolts (No. req'd)	Mass	
			C	A										
													lbf	lbs
3/4	FY 3/4 WF	YEL 204-012-2F	2 860	3/8	2 1/2	5/8	1 1/8	125/32	23/8	3/4	1/16	(4)-3/8	1.5	
13/16	FY 13/16 WF	YEL 205-013-2F	3 150	3/4	2 3/4	5/8	13/16	113/16	23/4	3/4	1/16	(4)-7/16	2.1	
7/8	FY 7/8 WF	YEL 205-014-2F											2.0	
15/16	FY 15/16 WF	YEL 205-015-2F											2.0	
1	FY 1 WF	YEL 205-100-2F											1.9	
1 1/16	FY 1 1/16 WF	YEL 206-101-2F	4 390	4 1/4	3 1/4	19/32	19/32	131/32	3 1/4	25/32	1/16	(4)-7/16	2.9	
1 1/8	FY 1 1/8 WF	YEL 206-102-2F											2.8	
1 3/16	FY 1 3/16 WF	YEL 206-103-2F											2.8	
1 1/4	FY 1 1/4 WF	YEL 207-104-2F	5 740	4 5/8	3 5/8	5/8	13/8	23/32	3 5/8	13/16	5/64	(4)-1/2	3.6	
1 5/16	FY 1 5/16 WF	YEL 207-105-2F											3.6	
1 3/8	FY 1 3/8 WF	YEL 207-106-2F											3.5	
1 7/16	FY 1 7/16 WF	YEL 207-107-2F											3.4	
1 1/2	FY 1 1/2 WF	YEL 208-108-2F	6 910	5 1/8	4	21/32	117/32	29/32	4	29/32	1/16	(4)-1/2	4.6	
1 5/8	FY 1 5/8 WF	YEL 209-110-2F	7 470	5 3/8	4 1/8	11/16	119/32	29/32	4 1/4	29/32	1/16	(4)-9/16	5.3	
1 11/16	FY 1 11/16 WF	YEL 209-111-2F											5.2	
1 3/4	FY 1 3/4 WF	YEL 209-112-2F											5.1	
1 15/16	FY 1 15/16 WF	YEL 210-115-2F	7 900	5 5/8	4 3/8	25/32	13/4	217/32	4 5/8	11/32	1/16	(4)-9/16	6.1	
2	FY 2 WF	YEL 211-200-2F	9 810	6 3/8	5 1/8	27/32	1 7/8	2 7/8	5	15/32	1/16	(4)-5/8	8.2	
2 3/16	FY 2 3/16 WF	YEL 211-203-2F											7.7	
2 1/4	FY 2 1/4 WF	YEL 212-204-2F	11 900	6 7/8	5 5/8	27/32	2 5/32	3 1/8	5 1/2	19/32	1/16	(4)-5/8	9.9	
2 7/16	FY 2 7/16 WF	YEL 212-207-2F											9.4	

Ball bearing units

Flange / Standard Duty

FY-FM

VCJ, F4BSXV, F3-W200U equivalent
Cast-iron flange
Four bolt mounting
Eccentric locking
Narrow inner ring
M-Seal



How to Order	FY 1 FM
Option	Specify
Non-Relubricatable	FY 1 FMW

For bearing information see page 240; for seal speed limits see page 214.

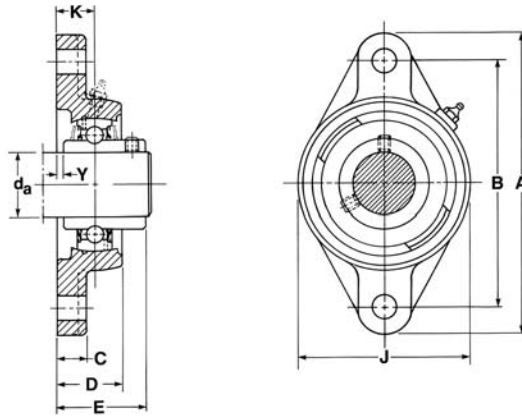
Shaft Dia. d_a	Pillow Block designation	Bearing designation	Dynamic capacity									Bolts (No. req'd)	Mass lbs
			C	A	B	C	D	E	J	K	Y		
1/2	FY 1/2 FM	YET 203-008	2 150	3	2 1/8	13/32	15/16	115/32	2 1/8	19/32	21/64	(4)-3/8	1.35
5/8	FY 5/8 FM	YET 203-010											1.30
3/4	FY 3/4 FM	YET 204-012	2 860	3 3/8	2 1/2	5/8	1 1/8	1 11/16	2 3/8	3/4	29/64	(4)-3/8	1.41
13/16	FY 13/16 FM	YET 205-013	3 150	3 3/4	2 3/4	5/8	1 3/16	1 11/16	2 3/4	3/4	15/32	(4)-7/16	1.94
7/8	FY 7/8 FM	YET 205-014											1.90
15/16	FY 15/16 FM	YET 205-015											1.90
1	FY 1 FM	YET 205-100											1.85
1 1/16	FY 1 1/16 FM	YET 206-101	4 390	4 1/4	3 1/4	19/32	19/32	1 27/32	3 1/4	25/32	7/16	(4)-7/16	2.76
1 1/8	FY 1 1/8 FM	YET 206-102											2.65
1 3/16	FY 1 3/16 FM	YET 206-103											2.65
1 1/4	FY 1 1/4 AFM	YET 206-104											2.65
1 1/4	FY 1 1/4 FM	YET 207-104	5 740	4 5/8	3 5/8	5/8	1 3/8	1 31/32	3 5/8	13/16	7/16	(4)-1/2	3.53
15/16	FY 15/16 FM	YET 207-105											3.42
13/8	FY 13/8 FM	YET 207-106											3.42
17/16	FY 17/16 FM	YET 207-107											3.31
1 1/2	FY 1 1/2 FM	YET 208-108	6 910	5 1/8	4	2 1/32	1 17/32	2 3/16	4	29/32	15/32	(4)-1/2	4.41
15/8	FY 15/8 FM	YET 209-110	7 470	5 3/8	4 1/8	1 1/16	1 19/32	2 3/16	4 1/4	29/32	15/32	(4)-9/16	5.07
1 11/16	FY 1 11/16 FM	YET 209-111											4.96
1 3/4	FY 1 3/4 FM	YET 209-112											4.74
1 15/16	FY 1 15/16 FM	YET 210-115	7 900	5 5/8	4 3/8	25/32	1 3/4	2 5/16	4 5/8	1 1/32	19/32	(4)-9/16	5.73
2	FY 2 FM	YET 211-200	9 810	6 3/8	5 1/8	27/32	1 7/8	2 19/32	5	15/32	1 1/16	(4)-5/8	7.50
2 3/16	FY 2 3/16 FM	YET 211-203											7.17

Ball bearing units

Flange / Standard Duty

FYT-TF

SFT, YCJT, F2BSC equivalent
 Cast-iron flange
 Two bolt mounting
 Set screw locking
 Wide inner ring
 M-Seal & Flingers



How to Order	FYT 1 TF
Option	Specify
Multi-function Seal	FYT 1 TR FYT 1 TFW

For bearing information see page 242; for seal speed limits see page 214.

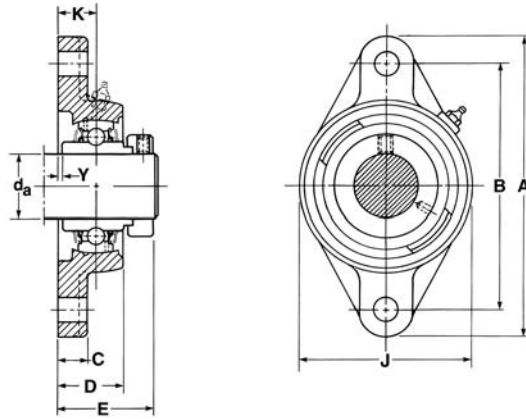
Shaft Dia. d _a	Pillow Block designation	Bearing designation	Dynamic capacity									Bolts (No. req'd)	Mass
			C	A	B	C	D	E	J	K	Y		
			lbf									lbs	
1/2	FYT 1/2 TF	YAR 203-008-2F	2150	37/8	3	15/32	15/16	17/32	21/8	19/32	1/8	(2)-3/8	0.7
5/8	FYT 5/8 TF	YAR 203-010-2F											0.7
3/4	FYT 3/4 TF	YAR 204-012-2F	2860	413/32	317/32	7/16	31/32	19/32	23/8	9/16	1/16	(2)-3/8	0.9
13/16	FYT 13/16 TF	YAR 205-013-2F	3150	47/8	329/32	5/8	13/16	117/32	23/4	3/4	3/16	(2)-7/16	1.4
7/8	FYT 7/8 TF	YAR 205-014-2F											1.4
15/16	FYT 15/16 TF	YAR 205-015-2F											1.3
1	FYT 1 TF	YAR 205-100-2F											1.3
11/16	FYT 11/16 TF	YAR 206-101-2F	4390	59/16	419/32	17/32	19/32	121/32	31/8	25/32	5/32	(2)-7/16	2.1
11/8	FYT 11/8 TF	YAR 206-102-2F											2.1
13/16	FYT 13/16 TF	YAR 206-103-2F											2.0
11/4	FYT 11/4 ATF	YAR 206-104-2F											1.9
11/4	FYT 11/4 TF	YAR 207-104-2F	5740	61/8	51/8	9/16	111/32	113/16	35/8	13/16	1/8	(2)-1/2	2.9
15/16	FYT 15/16 TF	YAR 207-105-2F											2.9
13/8	FYT 13/8 TF	YAR 207-106-2F											2.8
17/16	FYT 17/16 TF	YAR 207-107-2F											2.8
11/2	FYT 11/2 TF	YAR 208-108-2F	6910	63/4	521/32	9/16	117/32	23/32	4	29/32	5/32	(2)-1/2	3.7
15/8	FYT 15/8 TF	YAR 209-110-2F	7470	71/6	527/32	5/8	117/32	23/32	41/4	29/32	5/32	(2)-9/16	4.3
111/16	FYT 111/16 TF	YAR 209-111-2F											4.3
13/4	FYT 13/4 TF	YAR-209-112-2F											4.2
115/16	FYT 115/16 TF	YAR 210-115-2F	7900	77/16	63/16	25/32	123/32	29/32	49/16	1	1/4	(2)-9/16	5.1
2	FYT 2 TF	YAR 211-200-2F	9810	81/2	71/4	13/16	17/8	215/32	5	15/32	9/32	(2)-5/8	6.6
23/16	FYT 23/16 TF	YAR 211-203-2F											6.2

Ball bearing units

Flange / Standard Duty

FYT-WF

RCJT, F2BSXR, F3-Y200N equivalent
 Cast-iron flange
 Two bolt mounting
 Eccentric locking
 Wide inner ring
 M-Seal & Flingers



How to Order	FYT 1 WF
Option	Specify
Multi-function Seal	FYT 1 WR
Non-Relubricatable	FY 1 WFW

For bearing information see page 241; for seal speed limits see page 214.

Shaft Dia. d _a	Pillow Block designation	Bearing designation	Dynamic capacity										Bolts (No. req'd)	Mass lbs
			C	A	B	C	D	E	J	K	Y			
13/16	FYT 13/16 WF	YEL 205-013-2F	3 150	47/8	329/32	5/8	13/16	113/16	23/4	3/4	1/16	(2)-7/16	1.5	
7/8	FYT 7/8 WF	YEL 205-014-2F											1.5	
15/16	FYT 15/16 WF	YEL 205-015-2F											1.5	
1	FYT 1 WF	YEL 205-100-2F											1.4	
11/16	FYT 11/16 WF	YEL 206-101-2F	4 390	59/16	419/32	17/32	19/32	131/32	31/8	25/32	1/16	(2)-7/16	2.3	
11/8	FYT 11/8 WF	YEL 206-102-2F											2.2	
13/16	FYT 13/16 WF	YEL 206-103-2F											2.2	
11/4	FYT 11/4 WF	YEL 207-104-2F	5 740	61/8	51/8	8/16	111/32	23/32	35/8	13/16	5/64	(2)-1/2	3.3	
15/16	FYT 15/16 WF	YEL 207-105-2F											3.2	
13/8	FYT 13/8 WF	YEL 207-106-2F											3.2	
17/16	FYT 17/16 WF	YEL 207-107-2F											3.1	
11/2	FYT 11/2 WF	YEL 208-108-2F	6 910	63/4	521/32	9/16	117/32	29/32	4	29/32	1/16	(2)-1/2	4.2	
15/8	FYT 15/8 WF	YEL 209-110-2F	7 470	71/16	527/32	5/8	117/32	29/32	41/4	29/32	1/16	(2)-9/16	4.6	
111/16	FYT 111/16 WF	YEL 209-111-2F											4.6	
13/4	FYT 13/4 WF	YET 209-112-2F											4.4	
115/16	FYT 115/16 WF	YEL 210-115-2F	7 900	77/16	63/16	25/32	123/32	21/2	49/16	1	1/32	(2)-9/16	5.5	
2	FYT 2 WF	YEL 211-200-2F	9 810	81/2	71/4	13/16	17/8	27/8	5	15/32	1/16	(2)-5/8	7.3	
23/16	FYT 23/16 WF	YEL 211-203-2F											6.8	

Ball bearing units

Flange / Standard Duty

FYT-FM

VCJT, F2BSXV, FX3-W200U equivalent

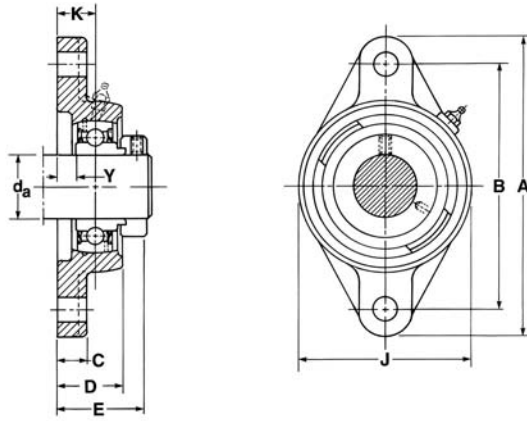
Cast-iron flange

Two bolt mounting

Eccentric locking

Narrow inner ring

M-Seal



How to Order FYT 1 FM

Option Specify

Non-Relubricatable FYT 1 FMW

For bearing information see page 240; for seal speed limits see page 214.

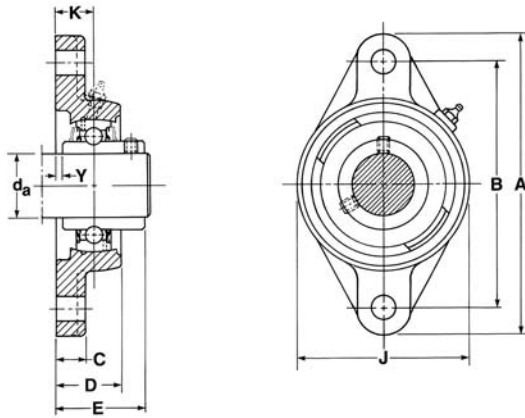
Shaft Dia. d _a	Pillow Block designation	Bearing designation	Dynamic capacity		B	C	D	E	J	K	Y	Bolts (No. req'd)	Mass lbs
			lbf	in									
1/2	FYT 1/2 FM	YET 203-008	2 150	37/8	3	15/32	15/16	17/16	21/8	19/32	21/64	(2)-3/8	0.8
5/8	FYT 5/8 FM	YET 203-010											0.7
3/4	FYT 3/4 FM	YET 204-012	2 860	413/32	317/32	7/16	31/32	11/2	23/8	9/16	17/64	(2)-3/8	1.0
13/16	FYT 13/16 FM	YET 205-013	3 150	47/8	329/32	5/8	13/16	111/16	23/4	3/4	29/64	(2)-7/16	1.4
7/8	FYT 7/8 FM	YET 205-014											1.4
15/16	FYT 15/16 FM	YET 205-015											1.4
1	FYT 1 FM	YET 205-100											1.3
11/16	FYT 11/16 FM	YET 206-101	4 390	59/16	419/32	17/32	19/32	127/32	31/8	25/32	27/64	(2)-7/16	2.2
11/8	FYT 11/8 FM	YET 206-102											2.1
13/16	FYT 13/16 FM	YET 206-103											2.1
11/4	FYT 11/4 AFM	YET 206-104											2.0
11/4	FYT 11/4 FM	YET 207-104	5 740	61/8	51/8	9/16	111/32	131/32	35/8	13/16	7/16	(2)-1/2	3.1
15/16	FYT 15/16 FM	YET 207-105											3.0
13/8	FYT 13/8 FM	YET 207-106											3.0
17/16	FYT 17/16 FM	YET 207-107											2.9
11/2	FYT 11/2 FM	YET 208-108	6 910	63/4	521/32	9/16	117/32	23/16	4	29/32	15/32	(2)-1/2	4.0
15/8	FYT 15/8 FM	YET 209-110	7 470	71/16	527/32	5/8	117/32	23/16	41/4	29/32	15/32	(2)-9/16	4.4
111/16	FYT 111/16 FM	YET 209-111											4.3
13/4	FYT 13/4 FM	YET 209-112											4.3
115/16	FYT 115/16 FM	YET 210-115	7 900	77/16	63/16	25/32	123/32	29/32	49/16	1	9/16	(2)-9/16	5.2
2	FYT 2 FM	YET 211-200	9 810	81/2	71/4	13/16	17/8	219/32	5	15/32	11/16	(2)-5/8	6.6
23/16	FYT 23/16 FM	YET 211-203											6.4

Ball bearing units

Flange / Medium Duty

FYTM-TF

MSFT, F2BSCM, FC2-35 equivalent
 Cast-iron flange
 Two bolt mounting
 Set screw locking
 Wide inner ring
 M-Seal & Flingers



How to Order	FYTM 17/16 TF
Option	Specify
Multi-function Seal	FYTM 17/16 TR
Non-Relubricatable	FYTM 17/16 TFW

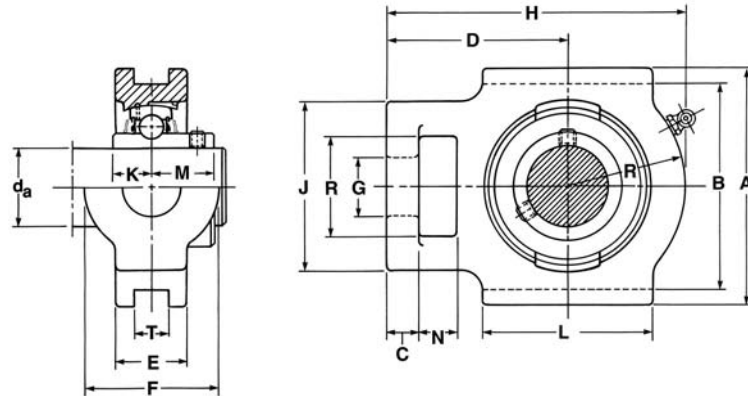
For seal speed limits see page 214.

Shaft Dia. d_a	Pillow Block designation	Bearing designation	Dynamic capacity		B	C	D	E	J	K	Y	Bolts (No. req'd)	Mass lbs
			C	A									
			lbf	in									
17/16	FYTM 17/16 TF	YAR 208-107-2F	6 910	63/4	521/32	9/16	117/32	23/32	4	29/32	5/32	(2)-1/2	3.9
11/2	FYTM 11/2 TF	YAR 209-108-2F	7 470	71/16	527/32	5/8	117/32	23/32	41/4	29/32	5/32	(2)-9/16	4.5
111/16 13/4	FYTM 111/16 FYTM 13/4 TF	YAR 210-111-2F YAR 210-112-2F	7 900	77/16	63/16	25/32	123/32	29/32	49/16	1	1/4	(2)-9/16	5.4 5.4
115/16	FYTM 115/16 TF	YAR 211-115-2F	9 810	81/2	71/4	13/16	17/8	215/32	5	15/32	9/32	(2)-5/8	6.7

Ball bearing units

Take-up / Standard Duty

TU-TF
 ST, WSTUSC, TH3-U200N equivalent
 Cast-iron housing
 Wide slot
 Set screw locking
 Wide inner ring
 M-Seal & Flingers



How to Order **TU 1 TF**

Option Specify

Multi-function Seal TU 1 TR
 Non-Relubricatable TU 1 TFW

For bearing information see page 242; for seal speed limits see page 214.

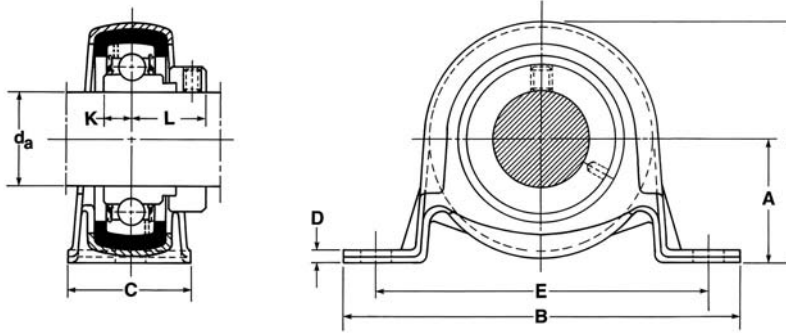
Shaft Dia d _a	Pillow Block designation	Bearing designation	Dynamic capacity																Mass lbs			
			C	A	B	C	D	E	F	G	H	J	K	L	M	N	R	T				
in			lb			in																
3/4	TU 3/4 TF	YAR 204-012-2F	2 860	35/8	3	13/32	27/16	1	111/32	3/4	313/16	21/8	1/2	21/8	23/32	5/8	11/4	17/32	1.7			
13/16	TU 13/16 TF	YAR 205-013-2F	3 150	319/32	3	13/32	217/32	1	111/32	3/4	315/16	23/32	9/16	21/16	25/32	5/8	15/16	17/32	2.1			
7/8	TU 7/8 TF	YAR 205-014-2F																	2.1			
15/16	TU 15/16 TF	YAR 205-015-2F																	2.1			
1	TU 1 TF	YAR 205-100-2F																	2.0			
11/16	TU 11/16 TF	YAR 206-101-2F	4 390	43/32	31/2	13/32	23/4	13/32	115/32	7/8	41/2	27/32	5/8	21/4	7/8	5/8	115/32	17/32	2.8			
11/8	TU 11/8 TF	YAR 206-102-2F																	2.8			
13/16	TU 13/16 TF	YAR 206-103-2F																	2.6			
11/4	TU 11/4 ATF	YAR 206-104-2F																	2.6			
11/4	TU 11/4 TF	YAR 207-104-2F	5 740	41/16	31/2	15/32	31/16	13/16	115/32	7/8	53/32	217/32	11/16	217/32	1	21/32	11/2	17/32	3.5			
15/16	TU 15/16 TF	YAR 207-105-2F																	3.5			
13/8	TU 13/8 TF	YAR 207-106-2F																	3.4			
17/16	TU 17/16 TF	YAR 207-107-2F																	3.4			
11/2	TU 11/2 TF	YAR 208-108-2F	6 910	417/32	331/32	19/32	315/32	15/16	115/16	15/32	523/32	39/32	3/4	39/32	13/16	3/4	131/32	11/16	4.3			
15/8	TU 15/8 TF	YAR 209-110-2F	7 470	419/32	331/32	19/32	37/16	13/8	115/16	15/32	521/32	39/32	3/4	39/32	13/16	3/4	115/16	11/16	5.7			
111/16	TU 111/16 TF	YAR 209-111-2F																	5.6			
13/4	TU 13/4 TF	YAR 209-112-2F																	5.5			
115/16	TU 115/16 TF	YAR 210-115-2F	7 900	419/32	331/32	5/8	317/32	113/32	115/16	15/32	57/8	39/32	3/4	33/8	19/32	3/4	115/16	11/16	6.7			
2	TU 2 TF	YAR 211-200-2F	9 810	53/4	51/8	3/4	43/16	15/8	217/32	13/8	623/32	41/32	7/8	33/4	15/16	1	217/32	11/16	8.9			
23/16	TU 23/16 TF	YAR 211-203-2F																	8.6			

Ball bearing units

Pillow Block / Light Duty

SR-FM

RPB equivalent
 Pressed steel housing
 Rubber cartridge
 Eccentric locking
 Narrow inner ring
 Non-Relubricatable
 M-Seal



How to Order **SR 1 FM**

Option Specify

None SR 1 FM

For bearing information see page 240; for seal speed limits see page 214.

Shaft Dia d_a	Pillow Block designation	Bearing designation	Dynamic capacity C	Set screw size									Bolt Hole Dia.	Bolts (No. req'd)	Mass lbs	
					A	B	C	D	E	H	K	L				
in			lbf	in	in	in	in	in	in	in	in	in	in	in	in	lbs
3/4	SR 3/4 FM	YET 204-012	2 860	1/4-28	1 1/8	4 1/2	1 1/8	7/32	3 3/8	2 7/32	9/32	15/16	13/32	(2)-3/8	0.6	
13/16	SR 13/16 FM*	YET 205-013	3 150	1/4-28	1 5/16	4 1/2	1 1/4	7/32	3 3/4	2 5/8	9/32	15/16	13/32	(2)-3/8	1	
7/8	SR 7/8 FM	YET 205-014													0.9	
15/16	SR 15/16 FM	YET 205-015													0.9	
1	SR 1 FM	YET 205-100													0.9	

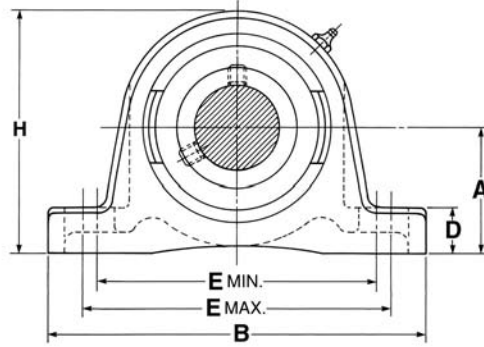
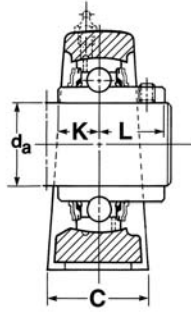
*Consult SKF Canada prior to design change or order placement.

Ball bearing units

Air Handling Ball Bearing Units Pillow Block / Standard Duty

SY-TF / AH

- Cast-iron housing
- Standard center height
- Set screw locking
- Wide inner ring
- M-Seal & Flingers
- Special aligning torque
- Anti-rotation pin
- Air-handling quality grease



For bearing information see page 242; for seal speed limits see page 214.

Shaft Dia. d _a	Pillow Block designation	Dynamic Speed ¹⁾ capacity rating		A	B	C	D	E Min	E Max	H	K	L	Bolts (No. req'd)	Mass lbs
		lbf	rpm											
1/2	SY 1/2 TF/AH	2 150	12 000	13/16	5	1 1/4	9/16	3 15/32	4 3/16	2 7/32	1 5/32	5/8	(2)-3/8	1.3
5/8	SY 5/8 TF/AH													1.3
3/4	SY 3/4 TF/AH	2 860	10 000	1 5/16	5	1 1/4	9/16	3 15/32	4 3/16	2 17/32	1/2	2 3/32	(2)-3/8	1.4
13/16*	SY 13/16 TF/AH	3 150	8 500	1 7/16	5 1/8	1 13/32	5/8	3 11/16	4 11/32	2 3/4	9/16	2 5/32	(2)-3/8	1.8
7/8	SY 7/8 TF/AH													1.8
15/16	SY 15/16 TF/AH													1.7
1	SY 1 TF/AH													1.7
1 1/16*	SY 1 1/16 TF/AH	4 390	7 500	1 11/16	6	1 19/16	2 1/32	4 1/4	5	3 7/32	5/8	7/8	(2)-1/2	3
1 1/8	SY 1 1/8 TF/AH													2.9
1 3/16	SY 1 3/16 TF/AH													2.9
1 1/4	SY 1 1/4 ATF/AH													2.8
1 1/4*	SY 1 1/4 TF/AH	5 740	6 300	1 7/8	6 5/16	1 25/32	3/4	4 11/16	5 1/4	3 21/32	1 1/16	1	(2)-1/2	3.6
1 5/16*	SY 1 5/16 TF/AH													3.5
1 3/8	SY 1 3/8 TF/AH													3.5
1 7/16	SY 1 7/16 TF/AH													3.4
1 1/2	SY 1 1/2 TF/AH	6 910	5 600	1 15/16	6 29/32	1 29/32	3/4	4 15/16	5 3/4	3 29/32	3/4	1 3/16	(2)-1/2	4.3
1 5/8	SY 1 5/8 TF/AH	7 470	5 000	2 1/8	7 3/8	1 7/8	13/16	5 5/16	6	4 7/32	3/4	1 3/16	(2)-1/2	5.4
1 11/16	SY 1 11/16 TF/AH													5.3
1 3/4	SY 1 3/4 TF/AH													5.2
1 15/16	SY 1 15/16 TF/AH	7 900	4 800	2 1/4	8	2 1/8	7/8	5 7/8	6 1/2	4 1/2	3/4	1 9/32	(2)-5/8	6.3
2	SY 2 TF/AH	9 810	4 300	2 1/2	8 5/8	2 3/16	15/16	6 3/8	7 1/8	5	7/8	1 5/16	(2)-5/8	8.5
2 3/16	SY 2 3/16 TF/AH													8
2 1/4	SY 2 1/4 TF/AH	11 900	4 000	2 3/4	9 1/2	2 1/2	1	7 1/16	7 15/16	5 7/16	1	1 9/16	(2)-5/8	11.5
2 7/16	SY 2 7/16 TF/AH													11
2 1/2	SY 2 1/2 TF/AH	12 900	3 600	3	10 1/8	2 9/16	1 5/32	7 15/32	8 1/2	5 29/32	1	1 11/16	(2)-3/4	14
2 11/16	SY 2 11/16 TF/AH													13.5
2 3/4	SY 2 3/4 TF/AH	14 900	3 200	3 1/4	10 3/4	2 25/32	1 1/4	8	9	6 1/2	1 1/16	1 13/16	(2)-3/4	16.5
2 15/16	SY 2 15/16 TF/AH													16

¹⁾ This is for grease lubrication and a moderate speed

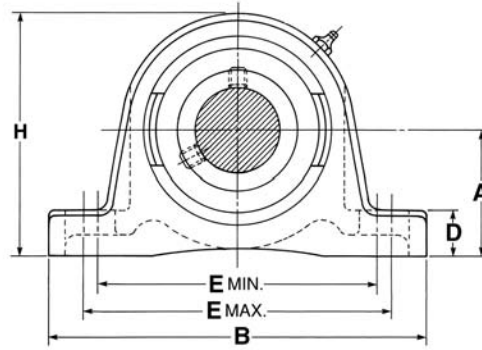
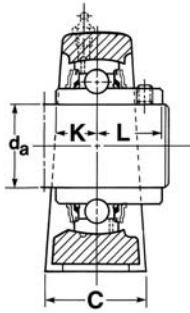
***Consult SKF Canada prior to design change or order placement.**

Ball bearing units

Air Handling Ball Bearing Units Pillow Block /Standard Duty

SYH-TF / AH

- Cast-iron housing
- Low center height
- Set screw locking
- Wide inner ring
- M-Seal & Flingers
- Special aligning torque
- Anti-rotation pin
- Air-handling quality grease



For bearing information see page 242; for seal speed limits see page 214.

Shaft Dia. d _a	Pillow Block designation	Dynamic Speed ¹⁾ capacity rating											Bolts (No. req'd)	Mass lbs
		C		A	B	C	D	E Min	E Max	H	K	L		
in		lbf	rpm	in	in	in	in	in	in	in	in	in	in	in
1/2	SYH 1/2 TF/AH	2 150	12 000	1 1/16	5	1 1/4	7/16	3 15/32	4 3/16	2 3/32	1 5/32	5/8	(2)-3/8	1.3
5/8	SYH 5/8 TF/AH													1.3
3/4	SYH 3/4 TF/AH	2 860	10 000	1 1/4	5	1 1/4	1/2	3 15/32	4 3/16	2 15/32	1/2	2 3/32	(2)-3/8	1.4
13/16*	SYH 13/16 TF/AH	3 150	8 500	1 5/16	5 1/8	1 13/32	1/2	3 11/16	4 11/32	2 5/8	9/16	2 5/32	(2)-3/8	1.8
7/8	SYH 7/8 TF/AH													1.8
15/16	SYH 15/16 TF/AH													1.7
1	SYH 1 TF/AH													1.7
1 1/16*	SYH 1 1/16 TF/AH	4 390	7 500	1 9/16	6	1 9/16	1 7/32	4 1/4	5	3 3/32	5/8	7/8	(2)-1/2	3.0
1 1/8	SYH 1 1/8 TF/AH													2.9
1 3/16	SYH 1 3/16 TF/AH													2.9
1 1/4*	SYH 1 1/4 ATF/AH													2.8
1 1/4	SYH 1 1/4 TF/AH	5 740	6 300	1 13/16	6 5/16	1 25/32	1 1/16	4 11/16	5 1/4	3 19/32	1 1/16	1	(2)-1/2	3.6
1 5/16*	SYH 1 5/16 TF/AH													3.5
1 3/8	SYH 1 3/8 TF/AH													3.5
1 7/16	SYH 1 7/16 TF/AH													3.4
1 1/2	SYH 1 1/2 TF/AH	6 910	5 600	1 15/16	6 29/32	1 29/32	3/4	4 15/16	5 3/4	3 29/32	3/4	1 3/16	(2)-1/2	4.3
1 5/8	SYH 1 5/8 TF/AH	7 470	5 000	2 1/16	7 3/8	1 7/8	1 3/16	5 5/16	6	4 7/32	3/4	1 3/16	(2)-1/2	5.4
1 11/16	SYH 1 11/16 TF/AH													5.3
1 3/4	SYH 1 3/4 TF/AH													5.2
1 15/16	SYH 1 15/16 TF/AH	7 900	4 800	2 3/16	8	2 1/8	1 3/16	5 7/8	6 1/2	4 7/16	3/4	1 9/32	(2)-5/8	6.3
2	SYH 2 TF/AH	9 810	4 300	2 7/16	8 5/8	2 3/16	1 5/16	6 3/8	7 1/8	5	7/8	1 5/16	(2)-5/8	8.5
2 3/16	SYH 2 3/16 TF/AH													8.0
2 1/4	SYH 2 1/4 TF/AH	11 900	4 000	2 11/16	9 1/2	2 1/2	1	7 1/16	7 15/16	5 7/16	1	1 9/16	(2)-5/8	11.5
2 7/16	SYH 2 7/16 TF/AH													11

¹⁾ For grease lubrication and moderate speed

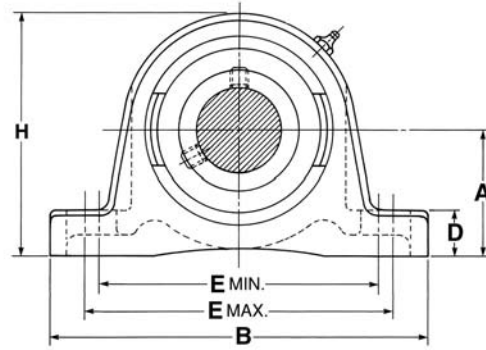
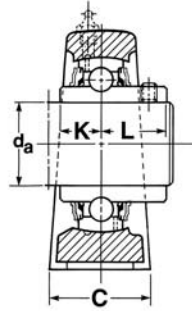
*Consult SKF Canada prior to design change or order placement.

Ball bearing units

Air Handling Ball Bearing Units Pillow Block / Medium Duty

SYM-TF / AH

Cast-iron housing
Set screw locking
Wide inner ring
M-Seal & Flingers
Special aligning torque
Anti-rotation pin
Air-handling quality grease



For seal speed limits see page 214.

Shaft Dia. d_a	Pillow Block designation	Dynamic Speed ¹⁾ capacity rating		A	B	C	D	E Min	E Max	H	K	L	Bolts (No. req'd)	Mass lbs
		lbf	rpm											
in				in	in	in	in	in	in	in	in	in	in	
17/16	SYM 17/16 TF/AH	6 910	6 300	21/8	73/8	13/4	13/16	55/16	6	47/32	3/4	13/16	(2)-1/2	4.4
11/2	SYM 11/2 TF/AH	7 470	5 600	21/8	73/8	17/8	13/16	55/16	6	47/32	3/4	13/16	(2)-1/2	5.5
111/16 13/4	SYM 111/16 TF/AH SYM 13/4 TF/AH	7 900	4 800	21/4	8	21/8	7/8	57/8	61/2	41/2	3/4	19/32	(2)-5/8	6.6 6.5
115/16	SYM 115/16 TF/AH	9 810	4 300	21/2	85/8	23/16	15/16	63/8	71/8	5	7/8	15/16	(2)-5/8	8.6
23/16	SYM 23/16 TF/AH	11 900	4 000	23/4	91/2	21/2	11/16	71/16	715/16	57/16	1	19/16	(2)-5/8	11.5
27/16 21/2	SYM 27/16 TF/AH SYM 21/2 TF/AH	14 000	3 400	3	101/8	25/8	11/2	71/2	81/2	6	13/16	19/16	(2)-3/4	15.5 15.0
211/16	SYM 211/16 TF/AH	14 900	3 400	31/2	12	3	17/8	81/2	91/2	631/32	11/16	113/16	(2)-7/8	16.5
215/16 3	SYM 215/16 TF/AH SYM 3 TF/AH	16 400	3 000	31/2	12	3	17/8	81/2	91/2	631/32	13/16	17/8	(2)-7/8	19.5 19.0

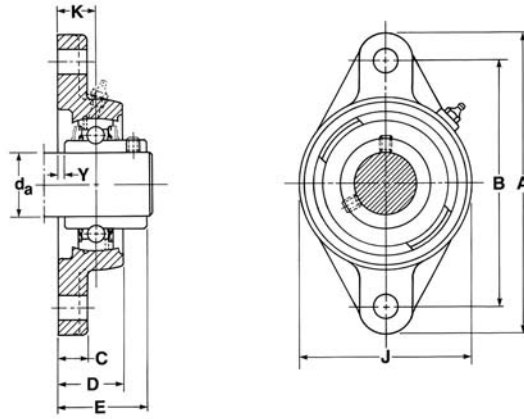
¹⁾ This refers to grease lubrication and moderate load.

Ball bearing units

Air Handling Ball Bearing Units Flange / Standard Duty

FYT-TF / AH

- Cast-iron flange
- Two bolt mounting
- Set screw locking
- Wide inner ring
- M-Seal & Flingers
- Special aligning torque
- Anti-rotation pin
- Air-handling quality grease



For bearing information see page 242; for seal speed limits see page 214.

Shaft Dia d_a	Pillow Block designation	Dynamic capacity C	Speed ¹⁾ rating									Bolts (No. req'd)	Mass lbs
				A	B	C	D	E	J	K	Y		
		lbf	rpm	in	in	in	in	in	in	in	in	in	
1/2	FYT 1/2 TF/AH	2 150	12 000	37/8	3	15/32	15/16	113/16	21/8	19/32	1/8	(2)-3/8	0.7
5/8	FYT 5/8 TF/AH												0.7
3/4	FYT 3/4 TF/AH	2 860	10 000	413/32	317/32	7/16	31/32	19/32	23/8	9/16	1/16	(2)-3/8	0.9
13/16	FYT 13/16 TF/AH	3 150	8 500	47/8	329/32	5/8	13/16	17/16	23/4	3/4	3/16	(2)-7/16	1.4
7/8	FYT 7/8 TF/AH												1.4
15/16	FYT 15/16 TF/AH												1.3
1	FYT 1 TF/AH												1.3
11/16*	FYT 11/16 TF/AH	4 390	7 500	59/16	419/32	17/32	19/32	121/32	31/8	25/32	5/32	(2)-7/16	2.1
11/8	FYT 11/8 TF/AH												2.1
13/16	FYT 13/16 TF/AH												2.0
11/4*	FYT 11/4 ATF/AH												1.9
11/4	FYT 11/4 TF/AH	5 740	6 300	61/8	51/8	9/16	111/32	113/16	35/8	13/16	1/8	(2)-1/2	2.9
15/16*	FYT 15/16 TF/AH												2.9
13/8	FYT 13/8 TF/AH												2.8
17/16	FYT 17/16 TF/AH												2.8
11/2	FYT 11/2 TF/AH	6 910	5 600	63/4	521/32	9/16	117/32	23/32	4	29/32	5/32	(2)-1/2	3.7
15/8	FYT 15/8 TF/AH	7 470	5 000	71/6	527/32	5/8	117/32	23/32	41/4	29/32	5/32	(2)-9/16	4.3
111/16	FYT 111/16 TF/AH												4.3
13/4	FYT 13/4 TF/AH												4.2
115/16	FYT 115/16 TF/AH	7 900	4 800	77/16	63/16	25/32	123/32	29/32	49/16	1	1/4	(2)-9/16	5.1
2	FYT 2 TF/AH	9 810	4 300	81/2	71/4	13/16	17/8	215/32	5	15/32	9/32	(2)-5/8	6.6
23/16	FYT 23/16 TF/AH												6.2

¹⁾ This refers to grease lubrication and moderate load.

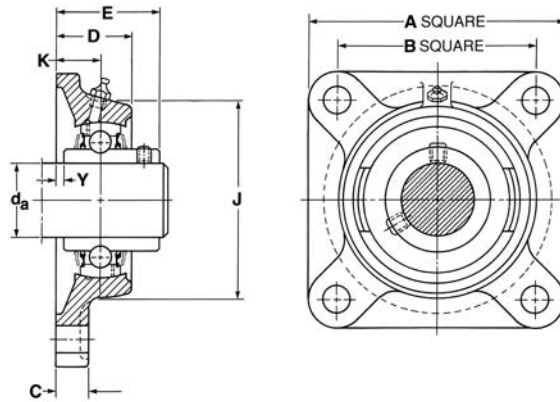
*Consult SKF Canada prior to design change or order placement.

Ball bearing units

Air Handling Ball Bearing Units Flange / Standard Duty

FY-TF / AH

- Cast-iron flange
- Four bolt mounting
- Set screw locking
- Wide inner ring
- M-Seal & Flingers
- Special aligning torque
- Anti-rotation pin
- Air-handling quality grease



For bearing information see page 242; for seal speed limits see page 214.

Shaft Dia d _a	Pillow Block designation	Dynamic Speed ¹⁾ capacity rating		A	B	C	D	E	J	K	Y	Bolts (No. req'd)	Mass lbs
		lbf	rpm										
		C											
1/2	FY 1/2 TF/AH	2 150	12 000	3	2 1/8	13/32	15/16	17/32	2 1/8	19/32	1/8	(4)-3/8	1.3
5/8	FY 5/8 TF/AH												1.3
3/4	FY 3/4 TF/AH	2 860	10 000	3 3/8	2 1/2	5/8	1 1/8	1 15/32	2 3/8	3/4	1/4	(4)-3/8	1.3
13/16	FY 13/16 TF/AH	3 150	8 500	3 3/4	2 3/4	5/8	1 3/16	1 17/32	2 3/4	3/4	3/16	(4)-7/16	1.9
7/8	FY 7/8 TF/AH												1.9
15/16	FY 15/16 TF/AH												1.9
1	FY 1 TF/AH												1.8
1 1/16*	FY 1 1/16 TF/AH	4 390	7 500	4 1/4	3 1/4	19/32	1 9/32	1 21/32	3 1/4	25/32	5/32	(4)-7/16	2.6
1 1/8	FY 1 1/8 TF/AH												2.6
1 3/16	FY 1 3/16 TF/AH												2.6
1 1/4*	FY 1 1/4 ATF/AH												2.6
1 1/4	FY 1 1/4 TF/AH	5 740	6 300	4 5/8	3 5/8	5/8	1 3/8	1 13/16	3 5/8	13/16	1/8	(4)-1/2	3.3
1 5/16*	FY 1 5/16 TF/AH												3.3
1 3/8	FY 1 3/8 TF/AH												3.2
1 7/16	FY 1 7/16 TF/AH												3.2
1 1/2	FY 1 1/2 TF/AH	6 910	5 600	5 1/8	4	21/32	1 17/32	2 3/32	4	29/32	5/32	(4)-1/2	44
1 5/8	FY 1 5/8 TF/AH	7 470	5 000	5 3/8	4 1/8	11/16	1 19/32	2 3/32	4 1/4	29/32	5/32	(4)-9/16	5.0
1 11/16	FY 1 11/16 TF/AH												4.9
1 3/4	FY 1 3/4 TF/AH												4.7
1 15/16	FY 1 15/16 TF/AH	7 900	4 800	5 5/8	4 3/8	25/32	1 3/4	2 5/16	4 5/8	1 1/32	9/32	(4)-9/16	5.6
2	FY 2 TF/AH	9 810	4 300	6 3/8	5 1/8	27/32	1 7/8	2 15/32	5	1 5/32	9/32	(4)-5/8	7.5
2 3/16	FY 2 3/16 TF/AH												7.3
2 1/4	FY 2 1/4 TF/AH	11 900	4 000	6 7/8	5 5/8	27/32	2 5/32	2 27/32	5 1/2	1 9/32	9/32	(4)-5/8	9.9
2 7/16	FY 2 7/16 TF/AH												9.4
2 1/2	FY 2 1/2 TF/AH	12 900	3 600	7 3/8	5 7/8	11/16	2 1/32	2 13/16	6	1 1/8	1/8	(4)-5/8	11.5
2 11/16	FY 2 11/16 TF/AH												10.5
2 3/4	FY 2 3/4 MTF/AH	14 900	3 200	7 3/4	6	3/4	2 1/8	3 7/16	6 3/8	1 3/16	1/8	(4)-3/4	14.0
2 15/16	FY 2 15/16 MTF/AH												13.5

¹⁾ This refers to grease lubrication and moderate load

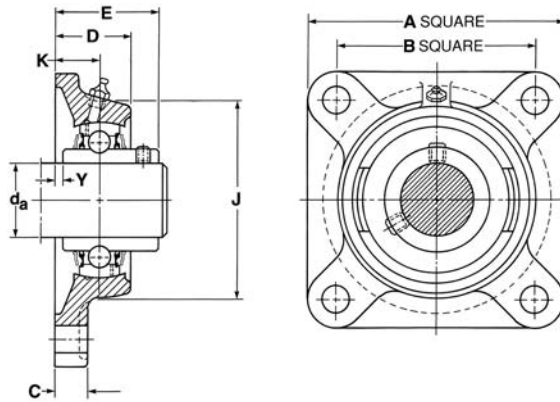
***Consult SKF Canada prior to design change or order placement.**

Ball bearing units

Air Handling Ball Bearing Units Flange / Medium Duty

FYM-TF / AH

- Cast-iron flange
- Four bolt mounting
- Set screw locking
- Wide inner ring
- M-Seal & Flingers
- Special aligning torque
- Anti-rotation pin
- Air-handling quality grease

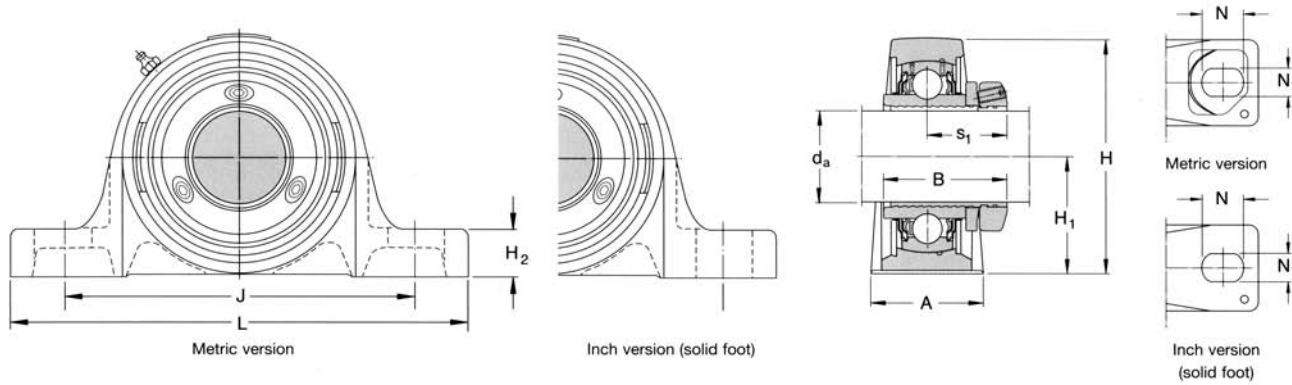


For seal speed limits see page 214.

Shaft Dia d_a	Pillow Block designation	Dynamic Speed ¹⁾ capacity rating		A	B	C	D	E	J	K	Y	Bolts (No. req'd)	Mass lbs
		lbf	rpm										
17/16	FYM 17/16 TF/AH	6 910	6 300	5 1/8	4	21/32	117/32	23/32	4	29/32	5/32	(4)-1/2	4.4
1 1/2	FYM 1 1/2 TF/AH	7 470	5 600	5 3/8	4 1/8	11/16	119/32	23/32	4 1/4	29/32	5/32	(4)-9/16	5.1
1 11/16 1 3/4	FYM 1 11/16 TF/AH FYM 1 3/4 TF/AH	7 900	4 800	5 5/8	4 3/8	25/32	13/4	25/16	4 5/8	11/32	9/32	(4)-9/16	6.1 6
1 15/16	FYM 1 15/16 TF/AH	9 810	4 300	6 3/8	5 1/8	27/32	17/8	215/32	5	15/32	9/32	(4)-5/8	7.5
2 3/16	FYM 2 3/16 TF/AH	11 900	4 000	6 7/8	5 5/8	27/32	25/32	227/32	5 1/2	19/32	9/32	(4)-5/8	10.0
2 7/16 2 1/2	FYM 2 7/16 TF/AH FYM 2 1/2 TF/AH	14 000	3 400	7 3/8	5 7/8	11/16	2 1/4	3	6 1/8	17/16	1/4	(4)-5/8	13.0 12.5
2 11/16	FYM 2 11/16 TF/AH	14 900	3 400	7 3/4	6	3/4	2 1/8	3	6 3/8	13/16	1/8	(4)-3/4	14.5
2 15/16 3	FYM 2 15/16 TF/AH FYM 3 TF/AH	16 400	3 000	7 3/4	6	7/8	25/16	3 1/4	6 3/4	13/8	3/16	(4)-3/4	18.0 17.5

¹⁾ This refers to grease lubrication and moderate load.

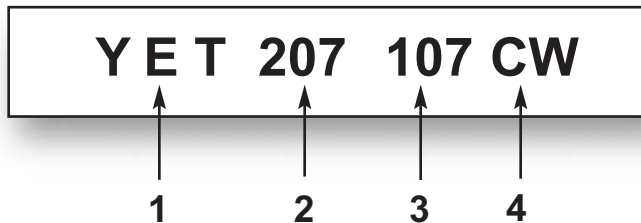
ConCentra ball bearing unit/ Air handling



For shaft fits see page 215.

Shaft dia. d_a	Designation	Dynamic capacity kN	Speed ratings rpm											Torque set screws Nm	Set screw mm	
				A	B	H	H_1	H_2	J	J	L Min	N Max	N_1			S_1
25	SY 25 PF	14	7 000	36	41	70	365	16.0	94	110	130	19.5	11.5	29	4.2	M5
30	SY 30 PF	19.5	6 300	40	45	82	42.9	17.0	108	127	152	23.5	14	31	4.2	M5
35	SY 35 PF	25.5	5 300	45	47	93	47.6	19.0	119	133	160	21	14	32	7.4	M6
40	SY 40 PF	30.7	4 800	48	51	99	49.2	19.0	125	146	175	24.5	14	34	7.4	M6
45	SY 45 PF	33.2	4 300	48	52	107	54.0	21.0	135	152	187	22.5	14	35	7.4	M6
50	SY 50 PF	35.1	4 000	54	54	114	57.2	22.0	149	165	203	26	18	36	7.4	M6
55	SY 55 PF	43.6	3 600	60	57	125	63.5	24.0	162	181	219	27.5	18	37	7.4	M6
60	SY 60 PF	52.7	3 400	60	59	137	69.9	26.5	179	202	240	29.5	18	38	7.4	M6
in.		lbf														in.lb
1	SY 1 PF/AH	3 150	7 000	17/16	15/8	23/4	17/16	5/8	311/16	45/16	51/8	3/4	7/16	11/8	37	M5
13/16	SY 13/16 PF/AH	4 380	6 300	19/16	13/4	31/4	111/16	5/8	41/4	5	6	15/16	9/16	13/16	37	M5
11/4	SY 11/4 PF/AH	5 730	5 300	13/4	17/8	311/16	17/8	3/4	411/16	51/4	67/16	13/16	9/16	11/4	37	M5
13/8	SY 13/8 PF/AH	5 730	5 300	13/4	17/8	311/16	17/8	3/4	411/16	51/4	67/16	13/16	9/16	11/4	66	M6
17/16	SY 17/16 PF/AH	5 730	5 300	13/4	17/8	311/16	17/8	3/4	411/16	51/4	67/16	13/16	9/16	11/4	66	M6
11/2	SY 11/2 PF/AH	6 900	4 800	17/8	2	37/8	115/16	3/4	415/16	53/4	67/8	1	9/16	15/16	66	M6
111/16	SY 111/16 PF/AH	7 460	4 300	17/8	2	41/4	21/8	13/16	55/16	6	73/8	7/8	9/16	13/8	66	M6
115/16	SY 115/16 PF/AH	7 890	4 000	21/8	21/8	41/2	21/4	7/8	57/8	61/2	8	1	11/16	13/8	66	M6
23/16	SY 23/16 PF/AH	9 800	3 600	23/8	21/4	5	21/2	15/16	63/8	71/8	83/8	11/16	11/16	17/16	66	M6
27/16	SY 27/16 PF/AH	10 700	3 400	23/8	25/16	51/2	23/4	1	71/16	715/16	97/16	11/8	11/16	11/2	66	M6
211/16	SY 211/16 PF/AH	12 600	3 000	29/16	23/8	57/8	3	11/8	71/2	81/2	101/8	13/8	7/8	11/2	66	M6
215/16	SY 215/16 PF/AH	14 900	2 600	213/16	21/2	61/2	31/4	11/4	8	9	11	13/8	7/8	15/8	66	M6

Mounting instructions included with each unit.



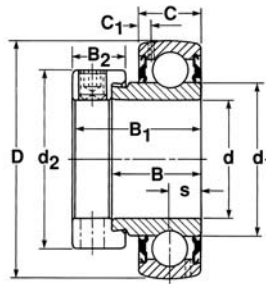
1. Bearing Type		4. Suffix	
YET	Inner ring extended one side, eccentric locking collar	AH	Air handling type
YEL	Inner ring extended both sides, eccentric locking collar	C	Cylindrical O.D.
YAR	Inner ring extended both sides, set screw lock	G	Lubrication groove in outer ring (opposite locking side)
YAT	Inner ring extended one side, set screw lock	GR	Lubrication groove in outer ring (on locking collar side)
1726	Standard inner ring, no set screws, press fit required	U	No locking collar
		W	No lubrication grooves in outer ring
		2F	Standard seal c/w flinger
		2RF	Rubberized flinger and standard seal
MRC types		MRC types	
RRZ	Inner ring extended both sides, set screw lock, ZmaRC coated	BRR	Double sealed, sphered o/d
RRH	Inner ring extended both sides, set screw lock, stainless steel	BBL	Sphered o/d, polymer material and stainless locking sleeve
		BPL	Sphered o/d, polymer material, stainless insert
2. Basic Bearings Size			
3. Bore Size			
Example 107 is $17/16$			

Ball bearing

Narrow Inner Ring Bearings

Spherical O.D. / Standard Duty

YET
 GRA-RRB, WG200UL equivalent
 Spherical O.D.
 Eccentric locking
 Narrow inner ring
 Relubricatable
 M-Seal



How to Order	YET 205-100
Option	Specify
No Collar	YET 205-100U
Non-Relubricatable	YET 205-100W
Lube Groove	YET 205-100G
Lube Groove (collar side)	YET 205-100GR

For seal speed limits see page 214.

Designation	Load Ratings													Max. fillet radius	Set screw size	Mass
	d	D	C	B	B ₁	C	C ₀	B ₂	C ₁	d ₁	d ₂	S				
	in	mm	mm	mm	in	in	lbf	in	in	in	in	in	in			
YET 203-008	1/2	40	12	3/4	1 1/8	2 150	1 070	17/32	3/32	31/32	13/32	1/4	0.012	1/4-28 x 1/4	0.29	
YET 203-010	5/8														0.26	
YET 203	17														0.22	
YET 204-012	3/4	47	14	27/32	17/32	2 860	1 470	17/32	3/32	11/8	19/32	9/32	0.024	1/4-28 x 1/4	0.37	
YET 204	20														0.40	
YET 205-013	13/16	52	15	27/32	17/32	3 150	1 750	17/32	1/8	111/32	115/32	9/32	0.024	1/4-28 x 1/4	0.49	
YET 205-014	7/8														0.46	
YET 205-015	15/16														0.44	
YET 205-100	1														0.40	
YET 205	25														0.42	
YET 206-101	1 1/16	62	18	15/16	1 13/32	4 390	2 520	5/8	5/32	19/16	123/32	11/32	0.024	5/16-24 x 5/16	0.75	
YET 206-102	1 1/8														0.71	
YET 206-103	1 3/16														0.66	
YET 206-104	1 1/4														0.62	
YET 206	30														0.66	
YET 207-104	1 1/4	72	19	1	1 17/32	5 740	3 440	11/16	5/32	1 13/16	2 1/32	3/8	0.039	3/8-24 x 3/8	1.20	
YET 207-105	1 5/16														1.10	
YET 207-106	1 3/8														1.10	
YET 207-107	1 7/16														1.10	
YET 207	35														0.97	
YET 208-108	1 1/2	80	21	13/16	1 23/32	6 910	4 270	23/32	3/16	2 1/32	2 7/32	7/16	0.039	3/8-24 x 3/8	1.45	
YET 208	40														1.30	
YET 209-110	1 5/8	85	22	13/16	1 23/32	7 470	4 860	23/32	3/16	2 1/4	2 7/16	7/16	0.039	3/8-24 x 3/8	1.65	
YET 209-111	1 11/16														1.55	
YET 209-112	1 3/4													1.45		
YET 209	45														1.43	
YET 210-115	1 15/16	90	22	13/16	1 23/32	7 900	5 220	23/32	3/16	2 15/32	2 5/8	7/16	0.039	3/8-24 x 3/8	1.65	
YET 210	50														1.54	
YET 211-200	2	100	25	19/32	1 29/32	9 810	6 520	13/16	7/32	2 23/32	2 15/16	15/32	0.039	7/16-20 x 7/16	2.45	
YET 211-203	2 3/16														2.15	
YET 211	55														1.98	

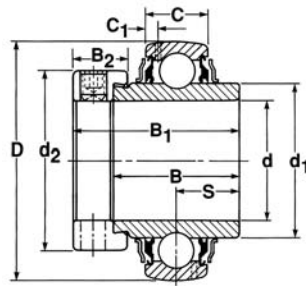
Ball bearing

Wide Inner Ring Bearings

Spherical O.D. / Standard Duty

YEL-2F

G-KRRB, YG200NL equivalent
Spherical O.D.
Eccentric locking
Wide inner ring
Relubricatable
M-Seal & Flingers



How to Order	YEL 205-1002F
Option	Specify
No Collar	YEL 205-100-2U
Non-Relubricatable	YEL 205-100-2FW
Lube Groove	YEL 205-100-2FG
Lube Groove (collar side)	YEL 205-100-2FGR
Multi-function Seal	YEL 205-100-2RF

For seal speed limits see page 214.

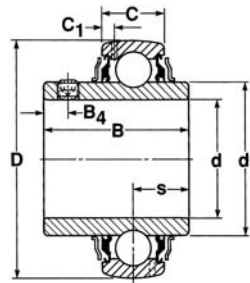
Designation	Load Ratings												Max. fillet radius	Set screw size	Mass lbs
	d	D	C	B	B ₁	C	C ₀	B ₂	C ₁	d ₁	d ₂	S			
	in	mm	mm	mm	in	in	lbf	in	in	in	in	in			
YEL 203-008-2F ^{1/2}		40	12	13/32	115/32	2 150	1 070	17/32	3/32	15/16	13/32	9/16	0.012	1/4-28 X 1/4	0.29
YEL 203-010-2F ^{5/8}															0.26
YEL 203-2F		17													0.24
YEL 204-012-2F ^{3/4}		47	14	111/32	123/32	2 860	1 470	17/32	3/32	13/32	19/32	11/16	0.024	1/4-28-1/4	0.44
YEL 204-2F		20													0.40
YEL 205-013-2F ^{13/16}		52	15	13/8	13/4	3 150	1 750	17/32	1/8	111/32	115/32	11/16	0.024	1/4-28 X 1/4	0.62
YEL 204-014-2F ^{7/8}															0.57
YEL 205-015-2F ^{15/16}															0.53
YEL 205-100-2F 1															0.49
YEL 205-2F		25													0.42
YEL 206-101-2F ^{11/16}		62	18	17/16	129/32	4 390	2 520	5/8	5/32	19/16	123/32	23/32	0.024	5/16-24 X 5/16	0.90
YEL 206-102-2F ^{11/8}															0.82
YEL 206-103-2F ^{13/16}															0.77
YEL 206-104-2F ^{11/4}															0.65
YEL 206-2F		30													0.66
YEL 207-104-2F ^{11/4}		72	19	115/32	2	5 740	3 440	11/16	5/32	113/16	21/32	3/4	0.039	3/8-24 X 3/8	1.35
YEL 207-105-2F ^{15/16}															1.30
YEL 207-106-2F ^{13/8}															1.25
YEL 207-107-2F ^{17/16}															1.15
YET 207-2F		35													0.88
YEL 208-108-2F ^{11/2}		80	21	111/16	27/32	6 910	4 270	23/32	3/16	21/32	27/32	27/32	0.039	3/8-24 X 3/8	1.65
YEL 208-2F		40													1.47
YEL 209-110-2F ^{15/8}		85	22	111/16	27/32	7 470	4 860	23/32	3/16	21/4	27/16	27/32	0.039	3/8-24 X 3/8	18/5
YEL 209-111-2F ^{111/16}															1.80
YEL 209-112-2F ^{13/4}															1.70
YEL 209-2F		45													1.63
YEL 210-115-2F ^{115/16}		90	22	115/16	215/32	7 900	5 220	23/32	3/16	215/32	25/8	31/32	0.039	3/8-24 X 3/8	2.05
YEL 210-2F		50													1.96
YEL 211-200-2F 2		100	25	23/16	213/16	9 810	6 520	13/16	7/32	223/32	215/16	13/32	0.039	7/16-20 X 7/16	3.10
YEL 211-203-2F ^{23/16}															2.65
YEL 211-2F		55													2.75
YEL 212-204-2F ^{21/4}		110	26	27/16	31/16	11 900	8 090	7/8	7/32	231/32	31/4	17/32	0.059	7/16-20 X 7/16	4.4
YEL 212-207-2F ^{27/16}															3.85
YEL 212-2F		60													3.63
YEL 215-215-2F ^{215/16}		130	29	215/16	35/8	14 900	11 000	15/16	1/4	35/8	315/16	115/32	0.059	7/16-20 X 7/16	5.97

Ball bearing

Spherical O.D. / Standard Duty

YAR-2F

GYA-RRB, UG200NL equivalent
Spherical O.D.
Set screw locking
Wide inner ring
Relubricatable
M-Seal & Flingers



How to Order	YAR 205-100-2F
Option	Specify
Non-Relubricatable	YAR 205-100-2FW
Lube Groove	YAR 205-100-2FG
Lube Groove (collar side)	YAR 205-100-2FGR
Multi-function Seal	YAR 205-100-2RF

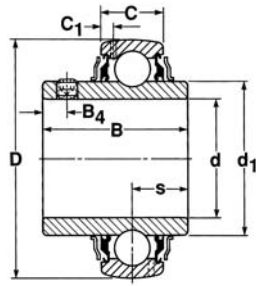
For seal speed limits see page 214.

Designation	Load Ratings											Max. fillet radius	Set screw size	Mass
	d		D	C	B	B ₄	C	C ₀	C ₁	d ₁	S			
	in	mm	mm	mm	in	in	lbs		in	in	in			
YAR 203-008-2F	1/2		40	12	13/32	0.16	2 150	1 070	3/32	31/32	15/32	0.012	10-32 x 1/4	0.25
YAR 203-010-2F	5/8													0.20
YAR 203-2F		17												0.19
YAR 204-012-2F	3/4		47	14	17/32	0.18	2 860	1 470	3/32	11/8	1/2	0.024	1/4-28 x 1/4	0.31
YAR 204-2F		20												0.31
YAR 205-013-2F	13/16		52	15	111/32	0.20	3 150	1 750	1/8	111/32	9/16	0.024	1/4-28 x 1/4	0.46
YAR 205-014-2F	7/8													0.44
YAR 205-015-2F	15/16													0.40
YAR 205-100-2F	1													0.37
YAR 205-2F		25												0.37
YAR 206-101-2F	11/16		62	18	11/2	02.0	4 390	2 520	5/32	19/16	5/8	0.024	1/4-28 x 1/4	0.71
YAR 206-102-2F	11/8													0.66
YAR 206-103-2F	13/16													0.60
YAR 206-104-2F	11/4													0.55
YAR 206-2F		30												0.62
YAR 207-105-2F	15/16		72	19	111/16	0.24	5 740	3 440	5/32	113/16	11/16	0.039	5/16-24 x 5/16	0.97
YAR 207-106-2F	13/8													0.90
YAR 207-107-2F	17/16													0.84
YAR 207-2F		35												0.88
YAR 208-108-2F	11/2		80	21	115/16	0.31	6 910	4 270	3/16	21/32	3/4	0.039	5/16-24 x 5/16	1.30
YAR 208-109-2F	19/16													1.25
YAR 208-2F		40												1.21
YAR 209-110-2F	15/8		85	22	115/16	0.31	7 470	4 860	3/16	21/4	3/4	0.039	5/16-24 x 5/16	1.55
YAR 209-111-2F	111/16													1.45
YAR 209-112-2F	23/4													1.35
YAR 209-2F		45												1.32
YAR 210-115-2F	115/16		90	22	21/32	0.35	7 900	5 220	3/16	215/32	3/4	0.039	3/8-24 x 3/8	1.55
YAR 210-2F		50												1.52
YAR 211-200-2F	2		100	25	23/16	0.35	9 810	6 520	7/32	223/32	7/8	0.039	3/8-24 x 3/8	2.45
YAR 211-203-2F	23/16													2.05
YAR 211-2F		55												2.07
YAR 212-204-2F	21/4		110	26	29/16	0.39	11 900	8 090	7/32	231/32	1	0.059	3/8-24 x 3/8	3.75
YAR 212-207-2F	27/16													3.20
YAR 212-2F		60												2.86
YAR 213-208-2F	21/2		120	27	211/16	0.39	12 900	8 990	7/32	31/4	1	0.059	3/8-24 x 3/8	3.95
YAR 213-211-2F	211/16													3.40
YAR 213-2F		65												3.74
YAR 215-212-2F	23/4		130	29	27/8	0.47	14 900	11 000	1/4	35/8	11/16	0.059	7/16-20 x 7/16	5.50
YAR 215-215-2F	215/16													4.85

Ball bearing

Spherical O.D. / Medium Duty

YAR-2F
Spherical O.D.
Set screw locking
Wide inner ring
Relubricatable
M-Seal & Flingers



How to Order	YAR 208-107-2F
Option	Specify
Non-Relubricatable	YAR 208-107-2FW
Lube Groove	YAR 208-107-2FG
Lube Groove (collar side)	YAR 208-107-2FGR
Multi-function Seal	YAR 208-107-2RF

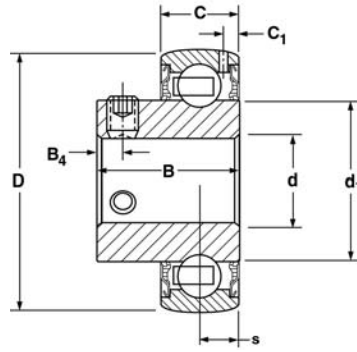
For seal speed limits see page 214.

Designation	Load Ratings										Max. fillet radius	Set screw size	Mass
	d	D	C	B	B ₄	C	C ₀	C ₁	d ₁	S			
	in	mm	mm	in	in	lbf		in	in	in	in		lbs
YAR 207-104-2F	1 1/4	72	19	1 11/16	0.24	5 740	3 440	5/32	1 13/16	1 1/16	0.039	5/16-24 x 5/16	1.00
YAR 208-107-2F	1 7/16	80	21	1 15/16	0.31	6 910	4 270	3/16	2 1/32	3/4	0.039	5/16-24 x 5/16	1.40
YAR 209-108-2F	1 1/2	85	22	1 15/16	0.31	7 470	4 860	3/16	2 1/4	3/4	0.039	5/16-24 x 5/16	1.70
YAR 210-111-2F	1 11/16	90	22	2 1/32	0.35	7 900	5 220	3/16	2 15/32	3/4	0.039	3/8-24 x 3/8	2.00
YAR 210-112-2F	1 3/4												1.85
YAR 211-115-2F	1 15/16	100	25	2 3/16	0.35	9 810	6 520	7/32	2 23/32	7/8	0.039	3/8-24 x 3/8	2.54
YAR 212-203-2F	2 3/16	110	26	2 9/16	0.39	11 900	8 090	7/32	2 31/32	1	0.059	3/8-24 x 3/8	3.85
YAR 214-207-2F	2 7/16	125	28	2 3/4	0.47	14 000	10 100	7/32	3 7/16	1 3/16	0.059	7/16-20 x 7/16	4.95
YAR 214-208-2F	2 1/2												4.75
YAR 215-211-2F	2 11/16	130	29	2 7/8	0.47	14 900	11 000	1/4	3 5/8	1 1/16	0.059	7/16-20 x 7/16	5.75
YAR 216-215-2F	2 15/16	140	30	3 1/16	0.47	16 400	12 400	1/4	3 27/32	1 3/16	0.079	7/16-20 x 7/16	6.50
YAR 216-300-2F	3												6.30

Ball bearing

Narrow Inner Ring Bearings Spherical O.D./ Standard Duty

YAT
GYA-RRB, V-,INS-SL equivalent
Spherical O.D.
Set Screw Locking
Narrow Inner Ring
Relubricatable
M-Seal



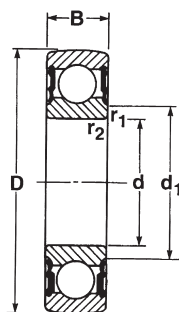
For seal speed limits see page 214.

Designation	Load Ratings										Max. fillet radius	Set screw size	Mass
	d	D	C	B	B ₄	C	C ₀	C ₁	d ₁	S			
	in	mm				lbf							
YAT 203-008	1/2	40	12	57/64	0.16	2 150	1 070	3/32	61/64	17/64	0.01	10-32 x 1/4	0.022
YAT 203-010	5/8												0.19
YAT 203	17												0.16
YAT 204-012	3/4	47	14	1	0.20	2 860	1 470	3/32	17/64	9/32	0.02	1/4-28 x 1/4	0.31
YAT 204	20												0.24
YAT 205-014	7/8	52	15	15/64	0.20	3 150	1 750	1/8	121/64	19/64	0.02	1/4-28 x 1/4	0.40
YAT 205-015	15/16												0.37
YAT 205-100	1												0.35
YAT 205	25												0.31
YAT 206-102	1 1/8	62	18	17/32	0.27	4 390	2 520	5/32	19/16	23/64	0.04	5/16-24 x 5/16	0.60
YAT 206-103	1 3/16												0.60
YAT 206-104	1 1/4												0.57
YAT 206	30												0.51
YAT 207-104	1 1/4	72	19	13/8	0.29	5 740	3 440	5/32	113/16	3/8	0.04	5/16-24 x 5/16	0.95
YAT 207-106	1 3/8												0.85
YAT 207-107	1 7/16												0.80
YAT 207	35												0.68
YAT 208-108	1 1/2	80	21	137/64	0.31	6 910	4 270	3/16	23/64	29/64	0.04	5/16-24 x 5/16	1.22
YAT 208	40												0.95
YAT 209-111	1 11/16	85	22	15/8	0.31	7 470	4 860	3/16	215/64	7/16	0.04	5/16-24 x 5/16	1.40
YAT 209-112	1 3/4												1.30
YAT209	45												1.06
YAT 210-115	1 15/16	90	22	145/64	0.35	7 900	5 220	3/16	215/32	7/16	0.04	3/8-24 x 3/8	1.46
YAT 210	50												1.19
YAT 211-200	2	100	25	125/32	0.35	9 810	6 520	7/32	223/32	31/64	0.04	3/8-24 x 3/8	2.20
YAT 211-203	2 3/16												1.88
YAT 212-204	2 1/4	110	26	129/32	0.35	11 900	8 090	7/32	263/64	17/32	0.06	3/8-24 x 3/8	2.20
YAT 212-207	2 7/16												2.40
YAT 215-215	2 15/16	120	29	27/64	0.37	14 900	11 000	1/4	35/8	37/64	0.06	3/8-24 x 3/8	3.78

Ball bearing

Standard Inner Ring Bearings
Spherical O.D./ Standard Duty

1726
Spherical O.D.
Press fit mounting
Standard inner ring
Non-Relubricatable
RS1 Seal



How to Order **1726205-2RS1**

Option Specify

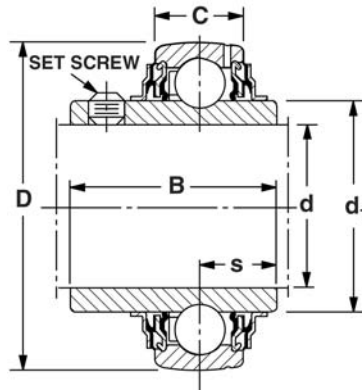
None 1726205-2RS1

For seal speed limits see page 214.

Designation				Load Ratings		Speed	Mass	
	d	D	B	$r_{1,2}$	C			C_0
					lbf	rpm	lbs	
1726202-2RS1	15	35	11	0.024	1 750	843	13 000	0.09
1726203-2RS1	17	40	12	0.024	2 150	1 070	12 000	0.12
1726204-2RS1	20	47	14	0.039	2 860	1 470	10 000	0.21
1726205-2RS1	25	52	15	0.039	3 150	1 750	8 500	0.24
1726206-2RS1	30	62	16	0.039	4 380	2 520	7 500	0.40
1726207-2RS1	35	72	17	0.043	5 730	3 440	6 300	0.55
1726208-2RS1	40	80	18	0.043	6 900	4 270	5 600	0.70
1726209-2RS1	45	85	19	0.043	7 460	4 860	5 000	0.81
1726210-2RS1	50	90	20	0.043	7 890	5 220	4 800	0.90
1726211-2RS1	55	100	21	0.059	9 800	6 520	4 300	1.19
1726212-2RS1	60	110	22	0.059	10 680	7 300	4 000	1.65
1726213-2RS1	65	120	23	0.059	12 360	9 100	3 600	N/A
1726305-2RS1	25	62	17	0.043	5 060	2 610	7 500	0.44
1726306-2RS1	30	72	19	0.043	6 320	3 600	6 300	0.66
1726307-2RS1	35	80	21	0.059	7 460	4 270	6 000	0.88
1726308-2RS1	40	90	23	0.059	9 220	5 400	5 000	1.21
1726309-2RS1	45	100	25	0.059	11 900	7 080	4 500	1.61
1726310-2RS1	50	110	27	0.079	13 900	8 540	4 300	2.09

For clearances see DGBB Section

Mounted Unit
ZMaRC-Coated Insert Bearings
Set Screw Locking



For Inch Shafts $\frac{3}{4}$ – $1\frac{15}{16}$

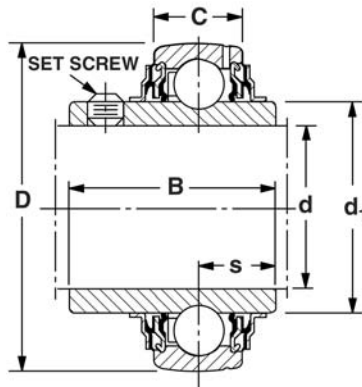
Insert Bearing Designation	Bore Dia d	Outside Dia D	Inner Width B	Outer Width C	Basic Radial Load Rating		d ₁	S	Max Fillet Rad. ¹⁾	Set Screw Size	Weight
					Dynamic C	Static C ₀					
	in	in	in	in	lbf	lbf	in	in	in	inch	lb
	mm	mm	mm	mm	N	N	mm	mm	mm		kg
RRZ1012BRR	$\frac{3}{4}$ 19.05	1.8504 47	1.220 31	0.5512 14	2 860 12 700	1 470 6 500	1.110 28.20	0.500 12.70	0.024 0.60	$\frac{1}{4}$ -28 x $\frac{3}{16}$	0.14
RRZ1015BRR	$\frac{15}{16}$ 23.81	2.0472 52	1.343 34.10	0.5906 15	3 150 14 000	1 750 7 800	1.328 33.74	0.563 14.30	0.024 0.60	$\frac{1}{4}$ -28 x $\frac{3}{16}$	0.19
RRZ1100BRR	1 25.4	2.0472 52	1.343 34.10	0.5906 15	3 150 14 000	1 750 7 800	1.328 33.74	0.563 14.30	0.024 0.60	$\frac{1}{4}$ -28 x $\frac{3}{16}$	0.17
RRZ1102BRR	$\frac{1}{8}$ 28.58	2.4409 62	1.500 38.10	0.7087 18	4 380 19 500	2 520 11 200	1.563 39.70	0.626 15.90	0.024 0.60	$\frac{1}{4}$ -28 x $\frac{3}{16}$	0.30
RRZ1103BRR	$\frac{3}{16}$ 30.16	2.4409 62	1.500 38.10	0.7087 18	4 380 19 500	2 520 11 200	1.563 39.70	0.626 15.90	0.024 0.60	$\frac{1}{4}$ -28 x $\frac{3}{16}$	0.27
RRZ104BRR2	$\frac{1}{4}$ 31.75	2.4409 62	1.500 38.10	0.7087 18	4 380 19 500	2 520 11 200	1.563 39.70	0.626 15.90	0.024 0.60	$\frac{1}{4}$ -28 x $\frac{3}{16}$	0.25
RRZ1104BRR	$\frac{1}{4}$ 31.75	2.8346 72	1.688 42.88	0.7480 19	5 730 25 500	3 440 15 300	1.815 46.10	0.689 17.50	0.039 1.00	$\frac{5}{16}$ -24 x $\frac{5}{16}$	0.46
RRZ1107BRR	$\frac{7}{16}$ 36.51	2.8346 72	1.688 42.88	0.7480 19	5 730 25 500	3 440 15 300	1.815 46.10	0.689 17.50	0.039 1.00	$\frac{5}{16}$ -24 x $\frac{5}{16}$	0.38
RRZ1108BRR	$\frac{1}{2}$ 38.10	3.1496 80	1.938 49.23	0.8268 21	6 900 30 700	4 270 19 000	2.039 51.80	0.748 19	0.039 1.00	$\frac{5}{16}$ -24 x $\frac{5}{16}$	0.59
RRZ1115BRR	$\frac{15}{16}$ 49.20	3.5433 90	2.031 51.60	0.8661 22	7 890 35 100	5 220 23 200	2.461 62.51	0.748 19	0.039 1.00	$\frac{3}{8}$ -24 x $\frac{5}{16}$	0.71

For Metric Shafts 20mm – 40mm

Insert Bearing Designation	Bore Dia d	Outside Dia D	Inner Width B	Outer Width C	Basic Radial Load Rating		d ₁	S	Max Fillet Rad. ¹⁾	Set Screw Size	Weight
					Dynamic C	Static C ₀					
	in	in	in	in	lbf	lbf	in	in	in	mm	kg
	mm	mm	mm	mm	N	N	mm	mm	mm	mm	
RRZ20BRR	0.7874 20	1.8504 47	1.220 31	0.5512 14	2 860 12 700	1 470 6 550	1.110 28.20	0.500 12.70	0.024 0.60	M6 x 0.75 x 5	0.31 0.14
RRZ25BRR	0.9843 25	2.0472 52	1.343 34.1	0.5906 15	3 150 14 000	1 750 7 800	1.328 33.74	0.563 14.30	0.024 0.60	M6 x 0.75 x 5	0.40 0.18
RRZ30BRR	1.1811 30	2.4409 62	1.500 38.1	0.7087 18	4 380 19 500	2 520 11 200	1.563 39.70	0.626 15.90	0.024 0.60	M6 x 0.75 x 5	0.60 0.27
RRZ35BRR	1.3780 35	2.8346 72	1.688 42.9	0.7480 19	5 730 25 500	3 440 15 300	1.815 46.10	0.689 17.50	0.039 1.00	M6 x 0.75 x 5	1.00 0.46
RRZ40BRR	1.5748 40	3.1496 80	1.938 49.2	0.7480 19	6 900 30 700	4 270 19 000	2.039 51.80	0.748 19	0.039 1.00	M8 x 1 x 7	1.20 0.55

¹⁾ Fillet radius indicates the maximum fillet radius on the shaft which bearing corner will clear.

Mounted Unit Stainless Steel Insert Bearings Set Screw Locking



For Inch Shafts ^{3/4} – 1 1/2

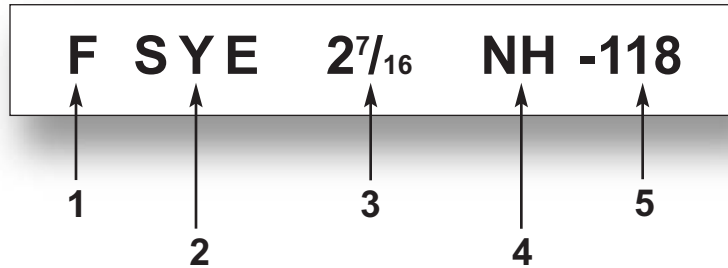
Insert Bearing Designation	Bore Dia d	Outside Dia D	Inner Width B	Outer Width C	Basic Radial Load Rating			S	Max Fillet Rad. ¹⁾	Set Screw Size	Weight
					Dynamic C	Static C ₀	d ₁				
	in	in	in	in	lbf	lbf	in	in	in	inch	lb
	mm	mm	mm	mm	N	N	mm	mm	mm		kg
RRH1012BRR	^{3/4} 19.05	1.8504 47	1.220 31	0.5512 14	2 380 10 600	1 470 6 500	1.110 28.20	0.500 12.70	0.024 0.60	1/4-28 x 3/16	0.31 0.14
RRH1100BRR	1 25.4	2.0472 52	1.343 34.10	0.5906 15	2 520 11 200	1 750 7 800	1.328 33.74	0.563 14.30	0.024 0.60	1/4-28 x 3/16	0.37 0.17
RRH1103BRR	^{13/16} 30.16	2.4409 62	1.500 38.10	0.7087 18	3 510 15 600	2 520 11 200	1.563 39.70	0.626 15.90	0.024 0.60	1/4-28 x 3/16	0.60 0.27
RRH104BRR2	^{11/4} 31.75	2.4409 62	1.500 38.10	0.7087 18	4 560 20 300	3 440 15 300	1.563 39.70	0.626 15.90	0.024 0.60	1/4-28 x 3/16	0.55 0.25
RRH1104BRR	^{11/4} 31.75	2.8346 72	1.688 42.88	0.7480 19	4 560 20 300	3 440 15 300	1.815 46.10	0.689 17.50	0.039 1.00	5/16-24 x 5/16	1.00 0.46
RRH1106BRR	^{13/8} 34.93	2.8346 72	1.688 42.88	0.7480 19	4 560 20 300	3 440 15 300	1.815 46.10	0.689 17.50	0.039 1.00	5/16-24 x 5/16	0.90 0.41
RRH1107BRR	^{17/16} 36.51	2.8346 72	1.688 42.88	0.7480 19	4 560 20 300	3 440 15 300	1.815 46.10	0.689 17.50	0.039 1.00	5/16-24 x 5/16	0.84 0.38
RRH1108BRR	^{11/2} 38.10	3.1496 80	1.938 49.23	0.8268 21	5 550 24 700	4 270 19 000	2.039 51.80	0.748 19.00	0.039 1.00	5/16-24 x 5/16	1.30 0.59

For Metric Shafts 20mm – 40mm

Insert Bearing Designation	Bore Dia d	Outside Dia D	Inner Width B	Outer Width C	Basic Radial Load Rating			S	Max Fillet Rad. ¹⁾	Set Screw Size	Weight
					Dynamic C	Static C ₀	d ₁				
	in	in	in	in	lbf	lbf	in	in	in	mm	lb
	mm	mm	mm	mm	N	N	mm	mm	mm		kg
RRH20BRR	0.7874 20	1.8504 47	1.220 31	0.5512 14	2 380 10 600	1 470 6 550	1.110 28.20	0.500 12.70	0.024 0.60	M6 x 0.75 x 5	0.31 0.14
RRH25BRR	0.9843 25	2.0472 52	1.343 34.1	0.5906 15	2 520 11 200	1 750 7 800	1.328 33.74	0.563 14.30	0.024 0.60	M6 x 0.75 x 5	0.40 0.18
RRH30BRR	1.1811 30	2.4409 62	1.500 38.1	0.7087 18	3 510 15 600	2 520 11 200	1.563 39.70	0.626 15.90	0.024 0.60	M6 x 0.75 x 5	0.60 0.27
RRH35BRR	1.3780 35	2.8346 72	1.688 42.9	0.7480 19	4 560 20 300	3 440 15 300	1.815 46.10	0.689 17.50	0.039 1.00	M6 x 0.75 x 5	1.00 0.46
RRH40BRR	1.5748 40	3.1496 80	1.938 49.2	0.7480 19	5 550 24 700	4 270 19 000	2.039 51.80	0.748 19	0.039 1.00	M8 x 1 x 7	1.20 0.55

¹⁾ Fillet radius indicates the maximum fillet radius on the shaft which bearing corner will clear.

Roller bearing units



1. Prefix	3. Shaft Size	TS Unit with labyrinth seals
F Four bolt base		
2. Housing style	4. Suffix	5.a) Suffix/Options/Specials
FYE Square flanged unit	H Held unit	-3 Garter spring seal (for collar mounted units)
FYRP Piloted flanged unit	N ConCentra design (integral sleeve)	-18 Labyrinth seal (for collar mounted units)
FYR Round flanged unit	Y Closed end (end cover supplied)	-118 Labyrinth seal for ConCentra units (N suffix types)
SYE Pillow block	5. Suffix (SYT only)	-XX Travel code, inches (length of travel for take-up frames)
SYR Pillow block	F Unit with locating bearing	
SYT Pillow block	L Unit with non-locating bearing	
TBR Centre pull take-up unit		

Recommended Shaft Tolerances	
Shaft Diameter	Tolerance
Up to 1 ¹⁵ / ₁₆ "	Nominal to -0.0005"
2" to 4 ¹⁵ / ₁₆ "	Nominal to -0.0010"

Note: When the load is Heavy, C/P < 8.3, a press fit must be used. Consult SKF Application Engineering.

Seal Speed Limits Collar mounted roller bearing units			
Shaft Size in	TriGard rpm	Labyrinth	Garter Spring
1 ⁷ / ₁₆	2 800	5 300	1 700
1 ¹ / ₂	2 800	5 300	1 700
1 ¹¹ / ₁₆	2 650	4 700	1 600
1 ³ / ₄	2 650	4 700	1 600
1 ¹⁵ / ₁₆	2 400	4 250	1 450
2	2 400	4 250	1 450
2 ³ / ₁₆	2 150	3 800	1 300
2 ⁷ / ₁₆	1 800	3 250	1 100
2 ¹ / ₂	1 800	3 250	1 100
2 ¹¹ / ₁₆	1 600	2 800	950
2 ³ / ₄	1 600	2 800	950
2 ¹⁵ / ₁₆	1 600	2 800	950
3	1 600	2 800	950
3 ⁷ / ₁₆	1 300	2 200	800
3 ¹ / ₂	1 300	2 200	800
3 ¹¹ / ₁₆	1 200	2 000	700
3 ¹⁵ / ₁₆	1 200	2 000	700
4	1 200	2 000	700
4 ⁷ / ₁₆	1 100	N/A	N/A
4 ¹ / ₂	1 100	N/A	N/A
4 ¹⁵ / ₁₆	900	N/A	N/A

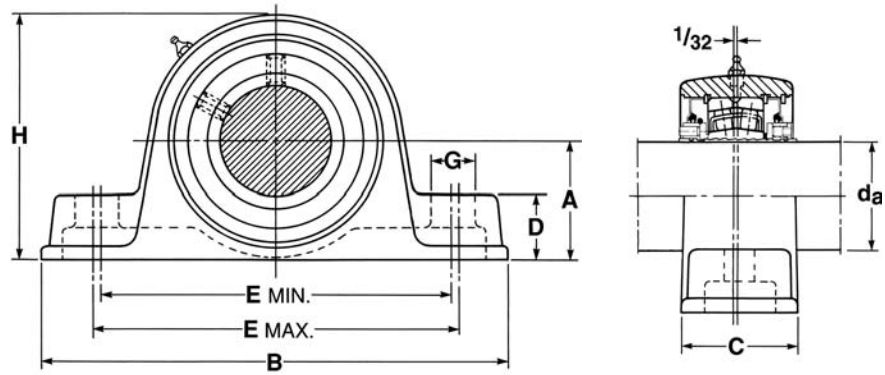
Seal Speed Limits ConCentra roller bearing units		
Shaft Size in	TriGard rpm	Labyrinth
1 ⁷ / ₁₆	4 000	5 600
1 ¹ / ₂	4 000	5 600
1 ¹¹ / ₁₆	3 700	5 300
1 ³ / ₄	3 700	5 300
1 ¹⁵ / ₁₆	3 500	5 000
2	3 500	5 000
2 ³ / ₁₆	3 250	4 500
2 ⁷ / ₁₆	2 900	3 800
2 ¹ / ₂	2 900	3 800
2 ¹¹ / ₁₆	2 600	3 400
2 ³ / ₄	2 600	3 400
2 ¹⁵ / ₁₆	2 600	3 400
3	2 600	3 400
3 ⁷ / ₁₆	2 200	2 600
3 ¹ / ₂	2 200	2 600
3 ¹⁵ / ₁₆	2 000	2 200
4	2 000	2 200

Roller bearing units

Pillow Block / Collar Mounted

SYE

Type E, ZEP EPB22400H equivalent
 Cast-iron housing
 2-bolt base
 Self-aligning
 Held or free
 TriGard seal



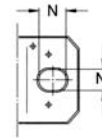
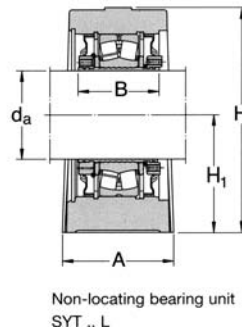
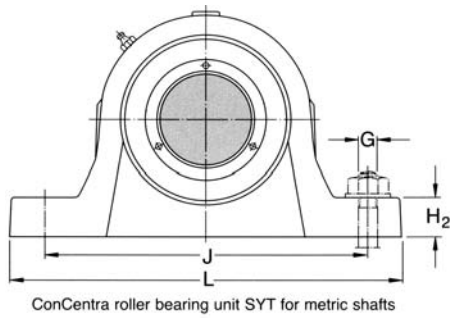
How to Order	SYE 27/16
Option	Specify
Held Unit	SYE 27/16 H
Closed End	SYE 27/16 Y
Garter Spring Seal	SYE 27/16-3
Labyrinth Seal	SYE 27/16-18

For shaft diameter tolerances see page 249; for bearing information see page 262; for other seal speed limits see page 249.

Shaft dia. d _a	Designations Pillow block unit	Bearing	Basic load rating dynamic C	TriGard speed limit	Bolts										Mass (No. req'd)		
					A	B	C	D	E Min	E Max	G	H	J	K		L	
in			lbf	rpm													lbs
17/16	SYE 17/16	476208B-107	16 600	2 800	17/8	73/8	21/8	11/8	51/2	6	3/4	37/8	227/32	1	23/4	(2)-1/2	8.0
11/2	SYE 11/2	476208B-108	16 600	2 800	21/8	77/8	23/8	11/4	6	61/2	3/4	41/4	231/32	1	23/4	(2)-1/2	8.0
111/16	SYE 111/16	476209B-111	17 300	2 650													9.3
13/4	SYE 13/4	476209B-112	17 300	2 650	21/4	87/8	21/2	15/16	63/4	71/4	7/8	41/2	35/32	1	27/8	(2)-5/8	9.3
115/16	SYE 115/16	476210B-115	19 000	2 400													10.5
2	SYE 2	476211B-200															10.5
23/16	SYE 23/16	476211B-203	22 400	2 150	21/2	95/8	25/8	11/2	71/2	8	7/8	5	311/32	11/8	31/8	(2)-5/8	13.5
27/16	SYE 27/16	476213B-207	33 300	1 800	23/4	101/2	27/8	15/8	81/4	83/4	1	511/16	319/32	11/4	33/8	(2)-5/8	18.5
21/2	SYE 21/2	476213B-208															18.0
211/16	SYE 211/16	476215B-211	35 500	1 600	31/8	12	3	17/8	91/4	93/4	11/8	65/16	329/32	11/4	35/8	(2)-3/4	25.5
23/4	SYE 23/4	476215B-212															25.0
215/16	SYE 215/16	476215B-215															24.0
3	SYE 3	476215B-300															23.5
37/16	SYE 37/16	476218B-307	56 900	1 300	33/4	14	35/8	21/4	1011/16	115/16	15/16	71/2	47/16	17/16	41/32	(2)-7/8	35.5
31/2	SYE 31/2	476218B-308															35.5

Roller bearing units

Pillow Block / ConCentra



SYE-N
 Type E, ZEP, EPB22400H equivalent
 Cast-iron housing
 2-bolt base
 Self-aligning
 Held or free
 TriGard seal

How to Order	SYE 27/16 N
Option	Specify
Held Unit	SYE 27/16 NH
Closed End	SYE 27/16 NY
Labyrinth Seal	SYE 27/16 N-118

For shaft diameter tolerances and other seal speed limits see page 249.

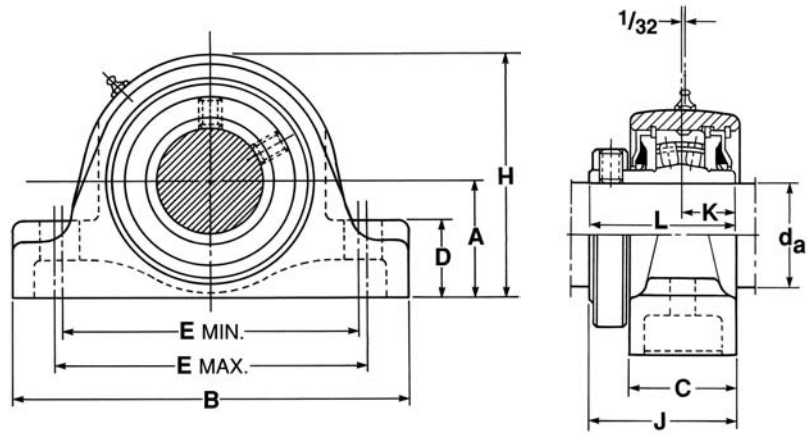
Shaft dia. d _a	Designations Pillow block unit	Basic load rating dynamic C	TriGard Seal speed limit	Labyrinth Seal speed limit									Bolts (No. req'd)	Mass (lbs)
					H ₁	L	A	H ₂	J Min	J Max	N	H		
in		lbf	rpm	rpm	in	in	in	in			in	in	in	lbs
17/16	SYE 17/16 N	21 600	4 000	5 600	17/8	73/8	21/8	11/8	51/2	6	3/4	37/8	(2)-1/2	8.0
11/2	SYE 11/2 N	21 600	4 000	5 600	21/8	77/8	23/8	11/4	6	61/2	3/4	41/4	(2)-1/2	8.0
111/16	SYE 111/16 N	22 932	3 700	5 300										9.3
13/4	SYE 13/4 N	22 932	3 700	5 300	21/4	87/8	21/2	15/16	63/4	71/4	7/8	41/2	(2)-5/8	9.3
115/16 2	SYE 115/16 N SYE 2 N	23 381	3 500	5 000	21/4	87/8	21/2	15/16	63/4	71/4	7/8	41/2	(2)-5/8	10.5 10.5
23/16 27/16 21/2	SYE 23/16 N SYE 27/16 N SYE 21/2 N	28 100 43 000	3 250 2 900	4 500 3 800	21/2 23/4	95/8 101/2	25/8 27/8	11/2 15/8	71/2 81/4	8 83/4	7/8 1	5 511/16	(2)-5/8 (2)-5/8	13.5 18.5 18.5
211/16 23/4 215/16 3	SYE 211/16 N SYE 23/4 N SYE 215/16 N SYE 3 N	47 500	2 600	3 400	31/8	12	3	17/8	91/4	93/4	11/8	65/16	(2)-3/4	25.5 25.0 24.0 23.5
37/16 31/2	SYE 37/16 N SYE 31/2 N	73 500	2 200	2 600	33/4	14	35/8	21/4	1011/16	115/16	15/16	71/2	(2)-7/8	35.5 35.5

Mounting instructions included with each unit.

Roller bearing units

Pillow Block / Collar Mounted

SYR
 ZA, PB24400H, S2000 equivalent
 Cast-iron housing
 2-bolt base
 Self-aligning
 Held or free
 TriGard seal



How to Order	SYR 27/16
Option	Specify
Held Unit	SYR 27/16 H
Closed End	SYR 27/16 Y
Garter Spring Seal	SYR 27/16-3
Labyrinth Seal	SYR 27/16-18

For shaft diameter tolerances see page 249; for bearing information see page 262; for other seal speed limits see page 249.

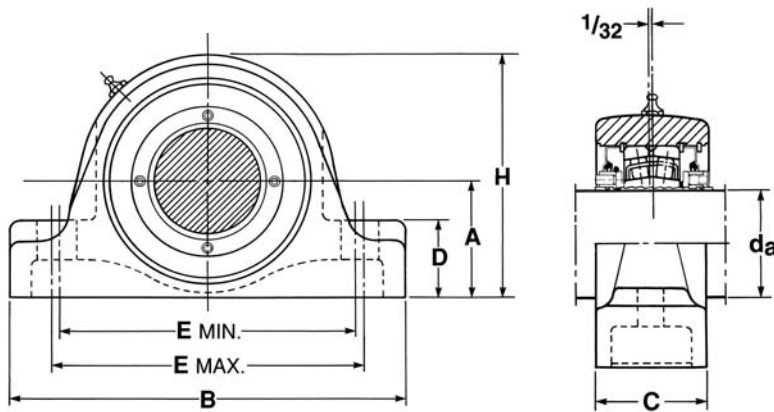
Shaft dia d _a	Designations Pillow block unit	Basic load rating dynamic C	TriGard speed limit											Bolts (No. req'd)	Mass lbs
				A	B	C	D	E Min	E Max	H	J	K	L		
in		lbf	rpm	in	in	in	in			in	in	in	in	in	in
17/16 1 1/2	SYR 17/16 SYR 1 1/2	16 600	2 800	17/8	67/8	21/16	13/16	4 11/16	5 5/16	37/8	2 13/16	1	2 3/4	(2)-1/2	7.0 7.0
1 11/16 1 3/4	SYR 1 11/16 SYR 1 3/4	17 300	2 650	2 1/8	7 3/8	25/16	15/16	5 3/16	5 13/16	4 1/4	2 15/16	1	2 7/8	(2)-1/2	8.1 8.1
1 15/16 2	SYR 1 15/16 SYR 2	19 000	2 400	2 1/4	8 3/8	25/16	13/8	5 15/16	6 9/16	4 9/16	2 15/16	1	2 7/8	(2)-5/8	9.2 9.1
2 3/16	SYR 2 3/16	22 400	2 150	2 1/2	8 7/8	25/16	15/8	6 7/16	7 1/16	5	3 3/16	1 1/8	3 1/8	(2)-5/8	12.0
2 7/16 2 1/2	SYR 2 7/16 SYR 2 1/2	33 300	1 800	2 3/4	9 1/4	29/16	13/4	6 13/16	7 7/16	5 11/16	3 7/16	1 1/4	3 3/8	(2)-5/8	16.0 16.0
2 11/16 2 3/4 2 15/16 3	SYR 2 11/16 SYR 2 3/4 SYR 2 15/16 SYR 3	35 500	1 600	3 1/4	10 7/16	29/16	2 1/4	7 13/16	8 7/16	6 7/16	3 11/16	1 1/4	3 5/8	(2)-3/4	22.0 22.0 21.0 21.0
3 7/16 3 1/2	SYR 3 7/16 SYR 3 1/2	56 900	1 300	3 3/4	13	2 15/16	2 1/4	9 1/4	10 3/4	7 1/2	4 3/32	1 7/16	4 1/32	(2)-7/8	31.5 31.5
3 11/16 3 15/16 4	SYR 3 11/16 SYR 3 15/16 SYR 4	69 900	1 200	4 1/8	14 1/4	35/16	2 1/2	10	11 3/4	8 7/16	4 21/32	15/8	4 19/32	(2)-1	44.5 43.5 43.5

Ball bearing units

Pillow Block / ConCentra

SYR-N

ZA, PB22400H, S2000 equivalent
Cast-iron housing
2-bolt base
Self-aligning
Held or free
TriGard seal



How to Order	SYR 27/16 N
Option	Specify
Held Unit	SYR 27/16 NH
Closed End	SYR 27/16 NY
Labyrinth Seal	SYR 27/16 N-118

For shaft diameter tolerances and other seal speed limits see page 249.

Shaft dia d_a	Designations Pillow block unit	Basic load rating dynamic C	TriGard Seal speed limit	Labyrinth Seal speed limit								Bolts L	Mass (No. req'd)
					A	B	C	D Min	E Max	E	H		
in		lbf	rpm										lbs
17/16 1 1/2	SYR 17/16N SYR 11/2N	21 600	4 000	5 600	17/8	67/8	21/16	13/16	411/16	55/16	37/8	211/32	(2)-1/2 7.0
111/16 13/4	SYR 111/16N SYR 13/4N	22 800	3 700	5 300	21/8	73/8	25/16	15/16	53/16	513/16	41/4	211/32	(2)-1/2 8.1
115/16 2	SYR 115/16N SYR 2N	23 300	3 500	5 000	21/4	83/8	25/16	13/8	515/16	69/16	49/16	211/32	(2)-5/8 9.2
23/16	SYR 23/16N	28 100	3 250	4 500	21/2	87/8	25/16	15/8	67/16	71/16	5	211/32	(2)-5/8 12.0
27/16 2 1/2	SYR 27/16N SYR 21/2N	43 000	2 900	3 800	23/4	91/4	29/16	13/4	613/16	77/16	511/16	237/64	(2)-5/8 16.0
211/16 23/4 215/16 3	SYR 211/16N SYR 23/4N SYR 215/16N SYR 3N	47 500	2 600	3 400	31/4	107/16	29/16	21/4	713/16	87/16	67/16	237/64	(2)-3/4 22.0 21.0 21.0
37/16 3 1/2	SYR 37/16N SYR 31/2N	73 500	2 200	2 600	33/4	13	215/16	21/4	91/4	103/4	71/2	35/32	(2)-7/8 31.5
311/16 315/16 4	SYR 311/16N SYR 315/16N SYR 4 N	95 000	2 000	2 200	41/8	141/4	35/16	21/2	10	113/4	87/16	33/8	(2)-1 43.5 43.5

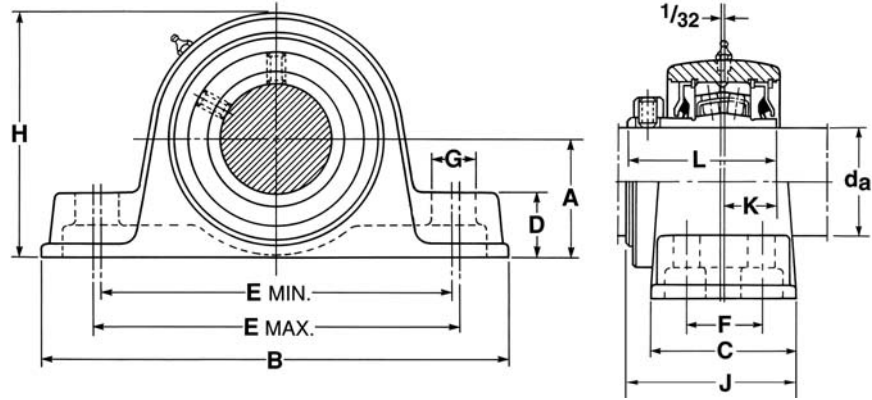
Mounting instructions included with each unit.

Roller bearing units

Pillow Block / Collar Mounted

FSYE

Type E, ZEP, EPB22400FH equivalent
 Cast-iron housing
 4-bolt base
 Self-aligning
 Held or free
 TriGard seal



FSYE 27/16 thru FSYE-4 supplied with single locking collar only
 FSYE 47/16 thru FSYE-415/16 supplied with double locking collar only

For shaft diameter tolerances see page 249; for bearing information see page 262; for other seal speed limits see page 249.

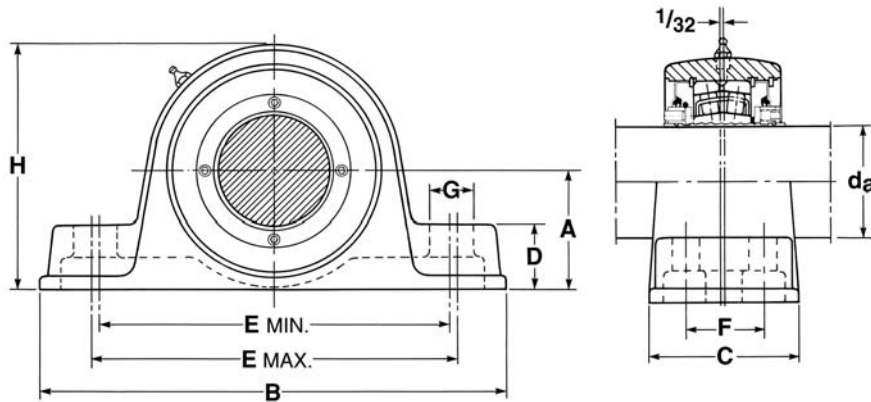
Shaft dia	Designations Pillow block unit	Basic load rating dynamic C	TriGard speed limit													Bolts (No. req'd)	Mass lbs
				A	B	C	D	E Min	E Max	F	G	H	J	K	L		
da		lbf	rpm	in	in	in	in	in	in	in	in	in	in	in	in	in	in
27/16	FSYE 27/16	33 300	1 800	23/4	10 1/2	3 1/2	15/8	8 1/4	8 3/4	17/8	1	5 11/16	3 19/32	1 1/4	3 3/8	(4)-5/8	19.0
2 1/2	FSYE 2 1/2																18.5
2 11/16	FSYE 2 11/16	35 500	1 600	3 1/8	12	4	17/8	9 1/8	9 7/8	2 1/8	1 1/8	6 5/16	3 29/32	1 1/4	3 5/8	(4)-5/8	25.5
2 3/4	FSYE 2 3/4																25.5
2 15/16	FSYE 2 15/16																24.0
3	FSYE 3																24.0
3 7/16	FSYE 3 7/16	56 900	1 300	3 3/4	14	4 1/2	2 1/4	10 9/16	11 7/16	2 3/8	1 5/16	7 1/2	4 7/16	1 7/16	4 1/32	(4)-3/4	36.5
3 1/2	FSYE 3 1/2																36.5
3 11/16	FSYE 3 11/16	69 900	1 200	4 1/4	15 1/4	4 1/2	2 7/16	12	13	2 1/4	1 3/8	8 9/16	4 7/8	1 5/8	4 19/32	(4)-3/4	50.5
3 15/16	FSYE 3 15/16																49.5
4	FSYE 4																49.5
4 7/16	FSYE 4 7/16	91 700	1 100	4 3/4	16 5/8	4 5/8	2 3/4	13 1/8	13 7/8	2 1/2	1 1/4	9 3/8	4 31/32	-	-	(4)-3/4	71.0
4 1/2	FSYE 4 1/2																71.0
4 15/16	FSYE 4 15/16	123 000	900	5 1/2	18 1/2	5 1/8	3	15 1/8	15 7/8	2 3/4	1 3/8	10 7/8	5 17/32	-	-	(4)-7/8	100.0

Roller bearing units

Pillow Block / ConCentra

FSYE-N

Type E, ZEP, EPB22400FH equivalent
Cast-iron housing
4-bolt base
Self-aligning
Held or free
TriGard seal



How to Order	FSYE 27/16 N
Option	Specify
Held Unit	FSYE 27/16 NH
Closed End	FSYE 27/16 NY
Labyrinth Seal	FSYE 27/16 N-118

For shaft diameter tolerances and other seal speed limits see page 249.

Shaft dia. d_a	Designations Pillow block unit	Basic load rating dynamic C	TriGard speed limit	Labyrinth speed limit										Bolts (No. req'd)	Mass lbs
					A	B	C	D	E Min	E Max	F	G	H		
in		lbf	rpm		in	in	in	in			in	in	in	in	in
27/16 2 1/2	FSYE 27/16 N FSYE 2 1/2 N	43 000	2 900	5 300	2 3/4	10 1/2	3 1/2	1 5/8	8 1/4	8 3/4	1 7/8	1	5 11/16	(4)-5/8	19.0 19.0
2 11/16 2 3/4 2 15/16 3	FSYE 2 11/16 N FSYE 2 3/4 N FSYE 2 15/16 N FSYE 3 N	47 500	2 600	3 400	3 1/8	12	4	1 7/8	9 1/8	9 7/8	2 1/8	1 1/8	6 5/16	(4)-5/8	25.5 25.5 24.0 24.0
3 7/16 3 1/2	FSYE 3 7/16 N FSYE 3 1/2 N	73 500	2 200	2 600	3 3/4	14	4 1/2	2 1/4	10 9/16	11 7/16	2 3/8	1 5/16	7 1/2	(4)-3/4	36.5 36.5
3 11/16 3 15/16 4	FSYE 3 11/16 N FSYE 3 15/16 N FSYE 4 N	95 000	2 000	2 200	4 1/4	15 1/4	4 1/2	2 7/16	12	13	2 1/4	1 3/8	8 9/16	(4)-3/4	50.5 49.5 49.5

Mounting instructions included with each unit.

Roller bearing units

Flange Block / Collar Mounted

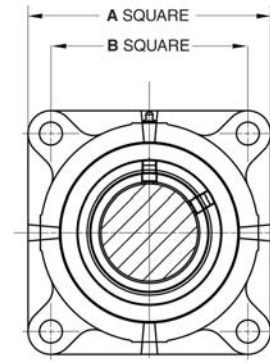
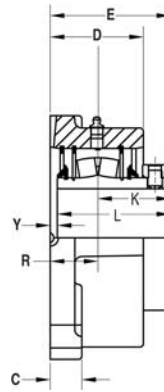
FYE

Type E, EFR
Cast-iron housing
4-bolt
Self-aligning
Held or free
TriGard seal

How to Order **FYE 27/16**

Option **Specify**

Held Unit FYE 27/16 H
Closed End FYE 27/16 Y
Garter Spring Seal FYE 27/16-3
Labyrinth Seal FYE 27/16-18



For shaft diameter tolerances see page 249; for bearing information see page 262; for other seal speed limits see page 249.

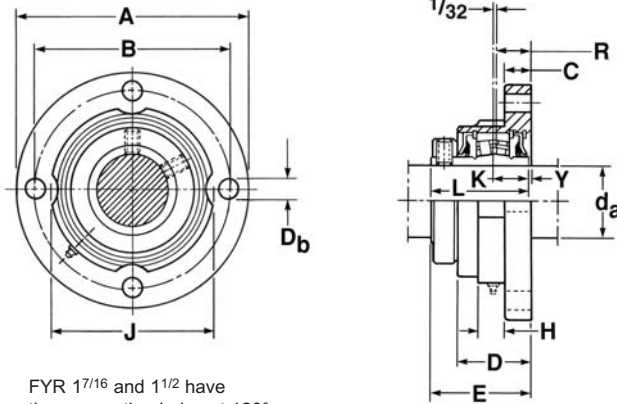
Shaft dia d _a	Designations Flange block unit	Basic load rating dynamic C	TriGard speed limit rpm										Bolts (No. req'd)	Bolt Hole D _b	Mass lbs	
				A	B	C	D	E	K	L	R	Y				
in		lbf	rpm	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lbs
17/16	FYE 17/16	16 600	2 800	45/8	31/2	3/4	21/4	227/32	1	23/4	13/32	3/32	(4)-1/2	9/16	7.2	
11/2	FYE 11/2	16 600	2 800	53/8	41/8	3/4	25/16	229/32	1	23/4	15/32	5/32	(4)-1/2	9/16	10.0	
111/16	FYE 111/16	17 300	2 650					31/32		27/8					10.0	
13/4	FYE 13/4	17 300	2 650	51/2	41/4	3/4	21/4	231/32	1	27/8	13/32	3/32	(4)-1/2	9/16	11.0	
115/16	FYE 115/16	19 000	2 400												11.0	
2	FYE 2	19 000	2 400												11.0	
23/16	FYE 23/16	22 400	2 150	61/4	43/4	3/4	23/8	37/32	11/8	31/8	17/32	3/32	(4)-5/8	11/16	13.5	
27/16	FYE 27/16	33 300	1 800	67/8	53/8	1	23/4	315/32	11/4	33/8	111/32	3/32	(4)-5/8	11/16	17.3	
21/2	FYE 21/2														17.1	
211/16	FYE 211/16	35 500	1 600	75/8	6	11/16	23/4	37/8	11/4	35/8	11/2	1/4	(4)-3/4	13/16	28.5	
23/4	FYE 23/4														28.3	
215/16	FYE 215/16														27.2	
3	FYE 3														27.0	
37/16	FYE 37/16	56 900	1 300	83/4	7	11/8	35/16	41/4	17/16	41/32	121/32	7/32	(4)-3/4	13/16	40.6	
31/2	FYE 31/2														40.1	
311/16	FYE 311/16	69 900	1 200	93/4	73/4	11/4	31/2	413/16	15/8	419/32	127/32	7/32	(4)-7/8	15/16	64.1	
315/16	FYE 315/16														69.1	
4	FYE 4														68.1	

Roller bearing units

Flange Block / Collar Mounted

FYR

ZB, FB22400H, S2000 equivalent
Cast-iron housing
3-bolt or 4-bolt
Self-aligning
Held or free
TriGard seal



FYR 17/16 and 11/2 have three mounting holes at 120°.

How to Order	FYR 27/16N
Option	Specify
Held Unit	FYR 27/16 H
Closed End	FYR 27/16 Y
Garter Spring Seal	FYR 27/16-3
Labyrinth Seal	FYR 27/16-18

For shaft diameter tolerances see page 249; for bearing information see page 262; for other seal speed limits see page 249.

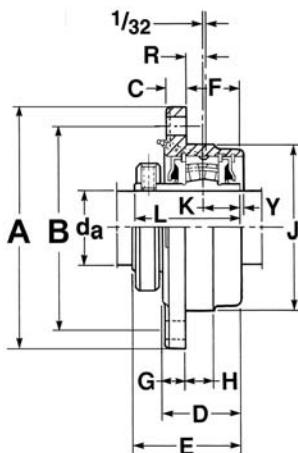
Shaft dia d_a	Designations Flange block unit	Basic load rating dynamic C	TriGard speed limit	Bolt circle											Bolts (No. req'd)	Bolt Hole D_b	Mass lbs	
				A	B	C	D	E	H	J	K	L	R	Y				
in		lbf	rpm	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in
17/16 11/2	FYR 17/16 FYR 11/2	16 600	2 800	6 1/4	5	3/4	2 1/16	2 7/8	3/4	3 7/8	1	2 3/4	13/32	1/8	(3)-1/2	9/16	8.5 8.4	
11 1/16 13/4	FYR 11 1/16 FYR 13/4	17 300	2 650	6 3/4	5 1/2	3/4	2 1/4	3	13/16	4 1/2	1	2 7/8	13/32	1/8	(4)-1/2	9/16	10.5 11.0	
11 5/16 2	FYR 11 5/16 FYR 2	19 000	2 400 2 400	7	5 3/4	3/4	2 1/4	3	13/16	4 3/4	1	2 7/8	13/32	1/8	(4)-1/2	9/16	11.0 10.5	
23/16	FYR 23/16	22 400	2 150	7 3/4	6 3/8	3/4	2 3/8	3 1/4	15/16	5 1/8	1 1/8	3 1/8	17/32	1/8	(4)-5/8	11/16	13.5	
27/16 2 1/2	FYR 27/16 FYR 2 1/2	33 300	1 800	8 1/8	6 3/4	15/16	2 9/16	3 1/2	15/16	5 3/4	1 1/4	3 3/8	11 1/32	1/8	(4)-5/8	11/16	17.5 17.5	
2 11/16 2 3/4 2 15/16 3	FYR 2 11/16 FYR 2 3/4 FYR 2 15/16 FYR 3	35 500	1 600	9 1/2	7 7/8	15/16	2 7/8	3 7/8	13/16	6 5/8	1 1/4	3 5/8	11 5/32	1/4	(4)-3/4	13/16	27.0 27.0 26.0 26.0	
3 7/16 3 1/2	FYR 3 7/16 FYR 3 1/2	56 900	1 300	11 1/8	9 1/2	1 1/8	3 1/16	4 9/32	13/16	7 5/8	1 7/16	4 1/32	12 1/32	1/4	(4)-3/4	13/16	38.0 38.0	
3 11/16 3 15/16 4	FYR 3 11/16 FYR 3 15/16 FYR 4	69 900	1 200	12 5/8	10 3/4	1 1/8	3 1/2	4 27/32	17/16	8 3/8	1 5/8	4 19/32	12 7/32	1/4	(4)-7/8	15/16	53.0 52.0 52.0	

Roller bearing units

Piloted Flange / Collar Mounted

FYRP

ZBR, FCB22400H, S2000, Type E equivalent
 Cast-iron housing
 4-bolt base
 Self-aligning
 Held or free
 TriGard seal

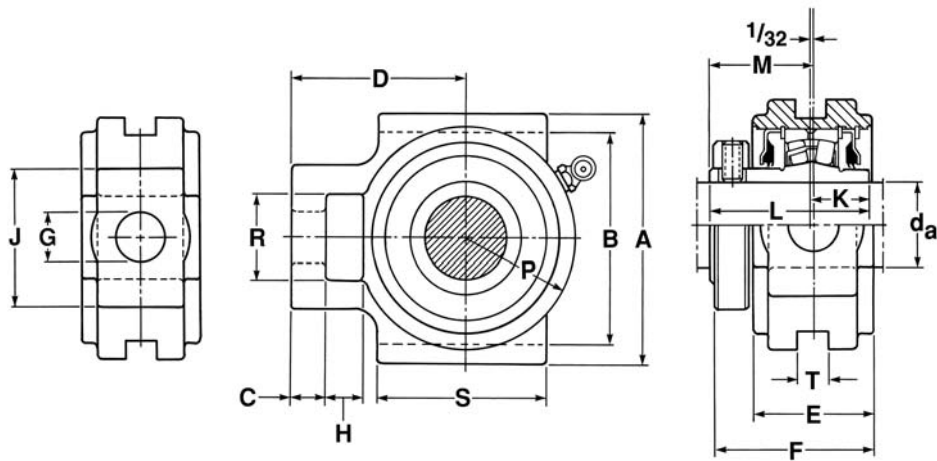


How to Order	FYRP 27/16
Option	Specify
Held Unit	FYRP 27/16 H
Closed End	FYRP 27/16 Y
Garter Spring Seal	FYRP 27/16-3
Labyrinth Seal	FYRP 27/16-18

For shaft diameter tolerances see page 249; for bearing information see page 262; for other seal speed limits see page 249.

Shaft dia	Designations	Basic load rating	TriGard speed limit	Bolt circle		Dimensions											Bolts (No. req'd)	Bolt Hole Db	Mass		
da	Piloted Flange unit	dynamic C	rpm	A	B	C	D	E	F	G	H	J ¹⁾	K	L	R	Y					
in		lbf		in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	lbs
17/16	FYRP 17/16	16 600	2 800	5 1/4	4 3/8	1/2	2 1/4	2 57/64	1 25/64	2 23/32	3/4	3.625	1	2 3/4	2 7/64	9/64	(4)-3/8	1 13/32		6.3	
1 1/2	FYRP 1 1/2																				6.3
1 11/16	FYRP 1 11/16	17 300	2 650	6 1/8	5 1/8	1/2	2 1/2	3 35/32	1 119/32	5/8	7/8	4.250	1	2 7/8	5/8	9/32	(4)-7/16	1 15/32		7.8	
1 3/4	FYRP 1 3/4																				7.7
1 15/16	FYRP 1 15/16	19 000	2 400	6 3/8	5 3/8	9/16	2 1/2	3 35/32	1 119/32	5/8	7/8	4.500	1	2 7/8	5/8	9/32	(4)-7/16	1 1/2		8.2	
2	FYRP 2																				8.2
2 3/16	FYRP 2 3/16	22 400	2 150	7 1/8	6	9/16	2 9/16	3 35/16	1 121/32	2 23/32	1	5.000	1 1/8	3 1/8	9/16	3/16	(4)-1/2	9/16		9.9	
2 7/16	FYRP 2 7/16	33 300	1 800	7 5/8	6 1/2	5/8	2 5/8	3 1/2	1 111/16	1 13/16	1	5.500	1 1/4	3 3/8	1 15/32	1/8	(4)-1/2	1 17/32		14.0	
2 1/2	FYRP 2 1/2																				13.5
2 11/16	FYRP 2 11/16	35 500	1 600	8 3/4	7 1/2	1 11/16	3 1/8	3 329/32	2 1/32	1 13/16	1 1/4	6.375	1 1/4	3 5/8	1 13/16	9/32	(4)-5/8	2 1/32		20.5	
2 3/4	FYRP 2 3/4																				20.5
2 15/16	FYRP 2 15/16																				19.5
3	FYRP 3																				19.5
3 7/16	FYRP 3 7/16	56 900	1 300	10 1/4	8 5/8	7/8	3 3/16	4 47/32	2 115/16	1 11/16	1 1/4	7.375	1 7/16	4 1/32	1 17/32	3/16	(4)-3/4	2 25/32		29.5	
3 1/2	FYRP 3 1/2																				29.0
3 11/16	FYRP 3 11/16	69 900	1 200	10 7/8	9 3/8	7/8	3 5/8	4 113/16	2 113/32	1	2	8.125	1 5/8	4 19/32	1 13/16	7/32	(4)-3/4	2 25/32		41.0	
3 15/16	FYRP 3 15/16																				40.0
4	FYRP 4																				40.0

¹⁾ O/D tolerance of the FYRP unit pilot diameter (J) dimension is 0.000 in. to -0.002 in.



Roller bearing units

Take-up / Collar Mounted

TBR
 ZT2000, TB22400H, S2000, equivalent
 Cast-iron housing
 Wide slot
 Self-aligning
 Held or free
 TriGard seal

How to Order	TBR 27/16
Option	Specify
Held Unit	TBR 27/16 H
Closed End	TBR 27/16 Y
Garter Spring Seal	TBR 27/16-3
Labyrinth Seal	TBR 27/16-18

For shaft diameter tolerances see page 249; for bearing information see page 262; for other seal speed limits see page 249.

Shaft dia d_a	Designations Take-up unit Collar mounted	Bearing basic load rating dynamic C	TriGard speed limit																		Mass lbs
				A	B	C	D	E	F	G	H	J	K	L	M	P	R	S	T		
		lbf	rpm	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in
1 11/16 1 3/4	TBR 111/16 TBR 13/4	17 300	2 650	4 3/4	4	3/4	3 7/8	2 5/16	3 1/16	1 1/8	3/4	3 3/16	1	2 7/8	1 29/32	2 1/4	1 5/16	3 3/8	1 1/16		9.0 9.0
1 15/16 2	TBR 115/16 TBR 2	19 000	2 400	4 3/4	4	3/4	3 7/8	2 5/16	3 1/16	1 1/8	3/4	3 3/16	1	2 7/8	1 29/32	2 1/4	1 15/16	3 3/8	1 1/16		10.0 10.0
2 3/16	TBR 23/16	22 400	2 150	5 1/4	4 1/2	7/8	4 5/8	2 7/16	3 1/4	1 1/4	1	3 3/4	1 1/8	3 1/8	2 1/32	2 1/2	2 1/4	3 3/4	1 3/16		13.0
2 7/16 2 1/2	TBR 27/16 TBR 2 1/2	33 300	1 800	5 7/8	5 1/8	1 5/16	5 1/32	2 9/16	3 7/16	1 3/8	1 1/4	4 1/8	1 1/4	3 3/8	2 5/32	2 27/32	2 1/2	4	1 1/16		17.5 17.5
2 11/16 2 3/4 2 15/16 3	TBR 211/16 TBR 2 3/4 TBR 2 15/16 TBR 3	35 500	1 600	6 11/16	5 15/16	1 3/16	5 3/4	2 11/16	3 3/4	1 5/8	1 1/4	4 3/4	1 1/4	3 5/8	2 13/32	3 3/16	2 3/4	4 3/4	1 13/16		24.0 24.0 23.0 23.0
3 7/16 3 1/2	TBR 37/16 TBR 3 1/2	56 900	1 300	7 13/16	6 13/16	1 1/16	6 3/8	3 1/16	4 5/32	1 7/8	1 5/8	4 7/8	1 7/16	4 1/32	2 5/8	3 1/8	2 7/8	6	1 13/16		34.5 34.5
3 11/16 3 15/16 4	TBR 311/16 TBR 3 15/16 TBR 4	69 900	1 200	9 7/16	8 5/8	1 1/8	7 11/16	3 7/16	4 23/32	2 1/8	2 1/8	5 3/8	1 5/8	4 19/32	3	4 3/8	3 3/8	7	2 1/16		49.0 49.0 49.0

Roller bearing units

Take-up / ConCentra

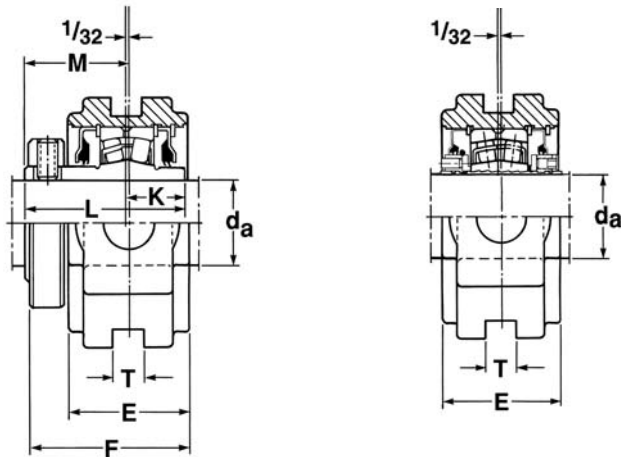
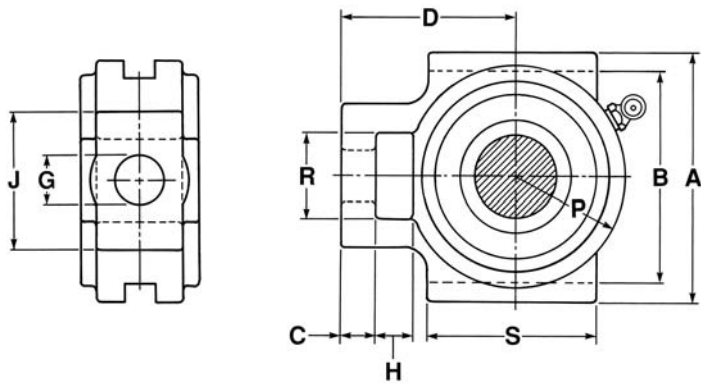
TBR-N

ZT2000, ZT5000, TB22400H, S2000,
 Type E equivalent
 Cast-iron housing
 Wide slot
 Self-aligning
 Held or free
 TriGard seal

How to Order **TBR 27/16**

Option **Specify**

Held Unit TBR 27/16 NH
 Closed End TBR 27/16 NY
 Labyrinth Seal TBR 27/16 N-118



For shaft diameter tolerances and other seal speed limits see page 249.

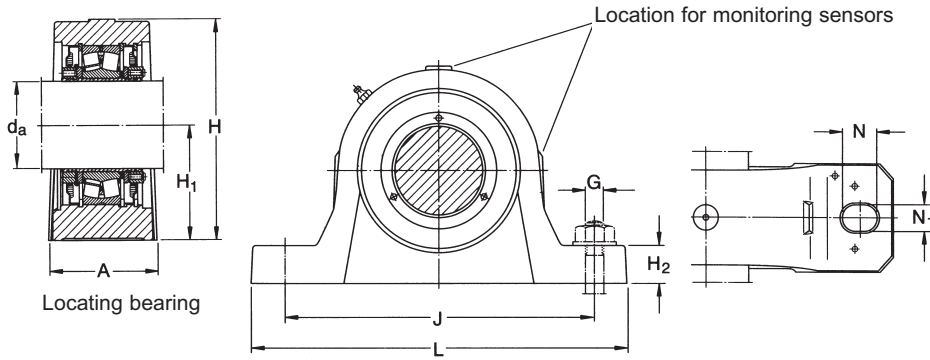
Shaft dia d _a	Designations Take-up unit ConCentra	Bearing basic load rating dynamic C	TriGard speed limit																	Mass lbs
				A	B	C	D	E	F	G	H	J	K	L	M	P	R	S	T	
		lbf	rpm	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in
111/16 13/4	TBR 111/16N TBR 13/4N	22 800	3 900	43/4	4	3/4	37/8	215/16	31/16	11/8	3/4	33/16	1	27/8	129/32	21/4	15/16	33/8	11/16	9.0
115/16 2	TBR 115/16N TBR 2N	23 300	3 500	43/4	4	3/4	37/8	25/16	31/16	11/8	3/4	33/16	1	27/8	129/32	21/4	115/16	33/8	11/16	10.0
23/16	TBR 23/16N	28 100	3 250	51/4	4 1/2	7/8	45/8	27/16	31/4	11/4	1	33/4	11/8	31/8	21/32	21/2	21/4	33/4	13/16	13.0
27/16 21/2	TBR 27/16N TBR 21/2N	43 400	2 900	57/8	5 1/8	15/16	51/32	29/16	37/16	13/8	11/4	41/8	11/4	33/8	25/32	227/32	21/2	4	11/16	17.5
211/16 23/4 215/16 3	TBR 211/16N TBR 23/4N TBR 215/16N TBR 3N	47 700	2 600	611/16	515/16	13/16	53/4	211/16	33/4	15/8	11/4	43/4	11/4	35/8	213/32	33/16	23/4	43/4	113/16	24.0 24.0 23.0 23.0
37/16 31/2	TBR 37/16N TBR 31/2N	65 200	2 200	713/16	613/16	11/16	63/8	31/16	45/32	17/8	15/8	47/8	17/16	41/32	25/8	31/8	27/8	6	113/16	34.5
311/16 315/16 4	TBR 311/16N TBR 315/16N* TBR 4N	81 000	2 000	97/16	85/8	11/8	711/16	37/16	423/32	21/8	21/8	53/8	15/8	419/32	3	43/8	33/8	7	21/16	49.0 49.0 49.0

Mounting instructions included with each unit.

*Consult SKF Canada prior to design change or order placement.

Roller bearing units

Pillow Block / ConCentra



SYT
 SNL 5 equivalent (metric)
 Cast-iron housing
 2-bolt base
 Self-aligning
 Held or free
 TriGard seal

How to Order	SYT 55
Option	Specify
Free Unit	SYT 55 L
Held Unit	SYT 55 F
Labyrinth Seal-Free	SYT 55 LTS
Labyrinth Seal-Held	SYT 55 FTS

For shaft diameter tolerances see page 215.

Shaft dia. d_a	Designation ¹⁾												Mass
	Double lip seals	Labyrinth seals	A	B	H	H_1	H_2	J	L	N	N_1	G	
mm			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kgs ¹⁾
35	SYT 35 L	SYT 35 LTS	60	59.5	110	60	25	170	205	20	15	12	3.40
40	SYT 40 L	SYT 40 LTS	60	59.5	114	60	25	170	205	20	15	12	3.50
45	SYT 45 L	SYT 45 LTS	60	59.5	116	60	25	170	205	20	15	12	3.60
50	SYT 50 L	SYT 50 LTS	70	59.5	129	70	28	210	255	24	18	16	4.80
55	SYT 55 L	SYT 55 LTS	70	59.5	135	70	30	210	255	24	18	16	5.40
60	SYT 60 L	SYT 60 LTS	80	65.5	150	80	30	230	275	24	18	16	7.00
65	SYT 65 L	SYT 65 LTS	80	65.5	157	80	30	230	280	24	18	16	8.00
70	SYT 70 L	SYT 70 LTS	90	65.5	177	95	32	260	315	28	22	20	10.50
75	SYT 75 L	SYT 75 LTS	90	65.5	182	95	32	260	320	28	22	20	11.50

¹⁾ Locating bearing units are identified by the suffix F instead of L, e.g. SYT35 F or SYT 35 FTS

Unit Basic desig.	Bearing Basic designation	Basic load ratings		Calculation factors				Speed ratings for units with double-lip labyrinth seals	Grease quantity Relubrication	Appropriate end cover		
		dynamic C	static C_0	e	Y_1	Y_2	Y_0			Designation	Protrusion A_5	
		kN		mm	mm	mm	mm	rpm	g			
SYT 35	22207	86.5	85.0	0.31	2.2	3.3	2.2	4 400	9 000	10	ECY 207	22.0
SYT 40	22208	96.5	90.0	0.28	2.4	3.6	2.5	4 000	8 000	10	ECY 208	23.5
SYT 45	22209	102.0	98.0	0.26	2.6	3.9	2.5	3 700	7 500	10	ECY 209	23.0
SYT 50	22210	104.0	108.0	0.24	2.8	4.2	2.8	3 500	7 000	10	ECY 210	29.5
SYT 55	22211	125.0	137.0	0.24	2.8	4.2	2.8	3 250	6 300	15	ECY 211	34.5
SYT 60	22212	156.0	166.0	0.24	2.8	4.2	2.8	3 000	5 600	15	ECY 212	35.5
SYT 65	22213	193.0	216.0	0.24	2.8	4.2	2.8	2 900	5 300	20	ECY 213	35.5
SYT 70	22214	208.0	228.0	0.22	3.0	4.6	2.8	2 650	5 000	20	ECY 214	38.5
SYT 75	22215	212.0	240.0	0.22	3.0	4.6	2.8	2 600	4 800	20	ECY 215	38.5

Mounting instructions included with each unit.

Collar mounted roller bearings

Insert Bearings / Collar Mounted

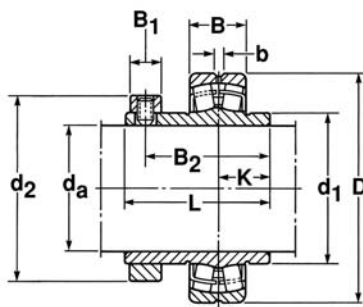
4762(00)B and 4762(00)B-VSB Series

Table 19A

Radial internal clearance

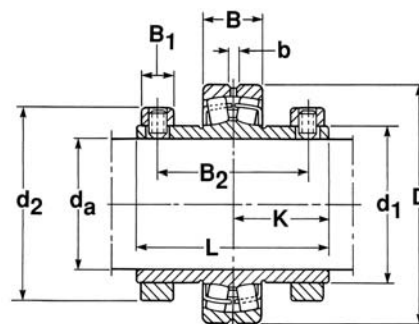
SKF unit roller insert bearings are produced as standard with radial internal clearance within the limits shown in the table below

Shaft sizes in	Internal clearance in		mm	
	min	max	min	max
17/16-1 1/2	.0010	.0020	.025	.050
111/16-2	.0012	.0022	.030	.055
23/16-2 1/2	.0014	.0026	.035	.065
211/16-3	.0018	.0031	.045	.080
37/16-4	.0024	.0039	.060	.100
47/16-4 1/2	.0028	.0047	.070	.120
415/16	.0035	.0057	.090	.145



Series 4762B

Shaft sizes
17/16 thru 4



Series 4762B-VSB

Shaft sizes
47/16 thru 415/16

Shaft size	Bearing Number	Snap rings ¹⁾	Labyrinth Flinger ²⁾	Plate ²⁾	TriGard Seal ³⁾	Garter Spring Seal ³⁾	End cover ⁴⁾
17/16 1 1/2	476208-B107 476208-B108	W-4389-2	B-10508-1	B-10507-1	B-10501	B-10510-1	B-9694-A
111/16 1 3/4	476209-B111 476209-B112	W-4389-3	B-10508-2	B-10507-2	B-10502	B-10510-2	B-9694-B
115/16 2	476212-B115 476210-B200	W-4389-4	B-10508-3	B-10507-3	B-10503	B-10510-3	B-9694-C
23/16	476211-B203	W-4389-5	B-10508-4	B-10507-4	B-10504	B-10510-4	B-9694-D
27/16 2 1/2	476213-B207 476213-B208	W-4389-7	B-10508-6	B-10507-6	B-10514	B-10510-5	B-9694-E
211/16 2 3/4 2 15/16 3	476215-B211 476215-B212 476215-B215 476215-B300	W-4389-9	B-10508-8	B-10507-8	B-10505	B-10510-6	B-9694-F
37/16 3 1/2	476218-B307 476218-B308	W-4389-12	B-10508-11	B-10507-11	B-10506	B-10510-7	B-9694-G
311/16 3 15/16 4	476220-B311 476220-B315 476220-B400	W-4389-14	B-10508-13	B-10507-13	B-10515	B-10510-8	B-9694-H
47/16 4 1/2	476222B-407VSB 476222-B408VSB	W-4389-15	N/A	N/A	B-10266	N/A	B-9694-J
415/16	476226-B415VSB	W-4389-16	N/A	N/A	B10267	N/A	B-9694-K

¹⁾ Two required for "free" units; Three required for "held" units

²⁾ Two required per unit (one labyrinth seal is comprised of one plate and one flinger).

³⁾ Two required per unit.

⁴⁾ One per unit (must be used for a labyrinth flinger).

⁵⁾ Letter preceding shaft size (or no letter) indicates a design change:

B indicates a change from 120 degree angle setscrews to 62 degree angle setscrews

A indicated 120 degree angle setscrews and a thicker case carburized inner ring.

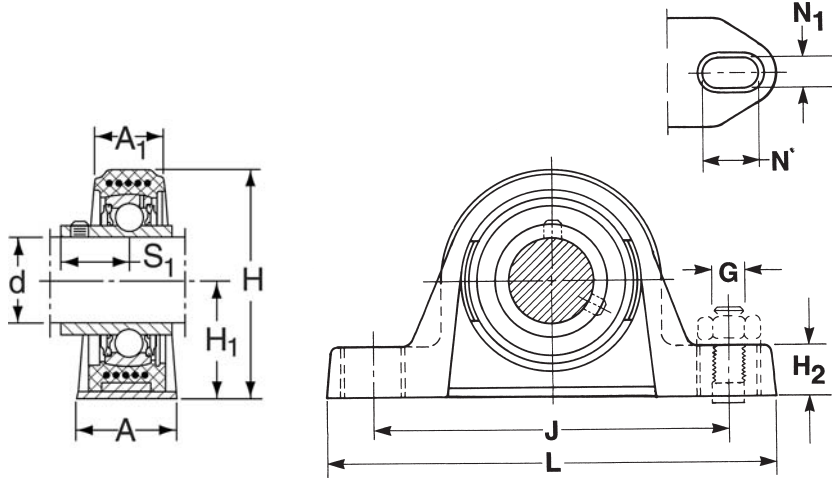
This has been superseded by the "b" designation. The above parts will work with bearing having this designation.

No letter in this position indicates a thinner through hardened inner ring.

The above seals will not work with this design.

Composite Units

MRC CPB Composite Pillow Block Units ZMaRC-Coated Insert Bearing



For Inch Shafts ^{3/4} – 1^{15/16}

Shaft Dia d in	Pillow Block Designation	A		H			J		L	N	N ₁	G	S ₁	Weight lb kg	Basic Radial Load Rating	
		in	mm	in	mm	in	mm	in							mm	Min
3/4	CPB012ZM	1 1/4	53/64	2 1/2	1 5/16	5/8	3 19/32	4	4 31/32	21/32	29/64	3/8	23/32	0.53	2 860	1 470
		32	21	64	33.3	16	91.5	101.5	126	17	11.5	10	18.3	0.24	12 700	6 550
15/16	CPB015ZM	1 1/4	7/8	2 25/32	1 7/16	5/8	3 29/32	4 11/32	5 9/32	21/32	29/64	3/8	25/32	0.65	3 150	1 750
		32	22	70.5	36.5	16	99.5	110.5	134	17	11.5	10	19.8	0.29	14 000	7 800
1	CPB100ZM	1 1/4	7/8	2 25/32	1 7/16	5/8	3 29/32	4 11/32	5 9/32	21/32	29/64	3/8	25/32	0.62	3 150	1 750
		32	22	70.5	36.5	16	99.5	110.5	134	17	11.5	10	19.8	0.28	14 000	7 800
1 1/8	CPB102ZM	1 37/64	63/64	3 15/64	1 11/16	3/4	4 1/4	5 3/64	6 1/4	53/64	35/64	1/2	7/8	1.10	4 380	2 520
		40	25	82	42.9	19	108	128	159	21	14	12	22.2	0.50	19 500	11 200
1 3/16	CPB103ZM	1 37/64	63/64	3 15/64	1 11/16	3/4	4 1/4	5 3/64	6 1/4	53/64	35/64	1/2	7/8	1.04	4 380	2 520
		40	25	82	42.9	19	108	128	159	21	14	12	22.2	0.47	19 500	11 200
1 1/4	CPB104ZMR	1 37/64	63/64	3 15/64	1 11/16	3/4	4 1/4	5 3/64	6 1/4	53/64	35/64	1/2	7/8	1.01	4 380	2 520
		40	25	82	42.9	19	108	128	159	21	14	12	22.2	0.46	19 500	11 200
1 1/4	CPB104ZM	1 49/64	1 1/16	3 21/32	1 7/8	3/4	4 11/16	5 1/4	6 15/32	53/64	35/64	1/2	1	1.57	5 730	3 440
		45	27	93	47.6	19	119	133	164	21	14	12	25.4	0.71	25 500	15 300
1 7/16	CPB107ZM	1 49/64	1 1/16	3 21/32	1 7/8	3/4	4 11/16	5 1/4	6 15/32	53/64	35/64	1/2	1	1.37	5 730	3 440
		45	27	93	47.6	19	119	133	164	21	14	12	25.4	0.62	25 500	15 300
1 1/2	CPB108ZM	1 57/64	1 3/16	3 29/32	1 15/16	25/32	5 5/64	5 5/8	6 57/64	53/64	35/64	1/2	1 3/16	1.98	6 900	4 270
		48	30	99	49.2	20	129	143	175	21	14	12	30	0.90	30 700	19 000
1 15/16	CPB115ZM ^{1,2)}	2 1/4	2 1/4	4 5/8	2 1/4	3/4	5 7/8	6 3/4	8 1/8	1 1/16	21/32	5/8	1 9/32	2.95	7 890	5 220
		57.2	57.2	117.5	57.2	19.1	149.2	171.5	206.4	27	16.7	16	32.6	1.34	35 100	23 200

For Metric Shafts 20mm – 40mm

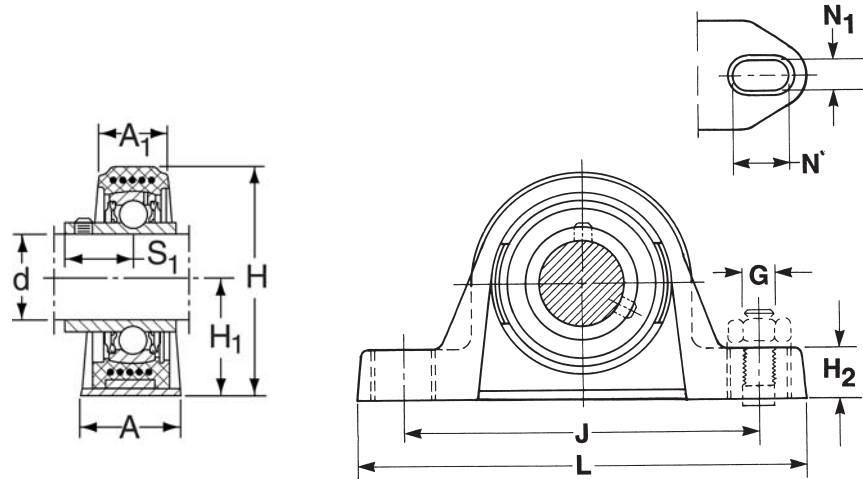
Shaft Dia d mm	Pillow Block Designation	A		H			J		L	N	N ₁	G	S ₁	Weight lb kg	Basic Radial Load Rating	
		in	mm	in	mm	in	mm	in							mm	Min
20	CPB20ZM	1 1/4	53/64	2 1/2	1 5/16	5/8	3 19/32	4	4 31/32	21/32	29/64	3/8	23/32	0.53	2 860	1 470
		32	21	64	33.3	16	91.5	101.5	126	17	11.5	10	18.3	0.24	12 700	6 550
25	CPB25ZM	1 1/4	7/8	2 25/32	1 7/16	5/8	3 29/32	4 11/32	5 9/32	21/32	29/64	3/8	25/32	0.64	3 150	1 750
		32	22	70.5	36.5	16	99.5	110.5	134	17	11.5	10	19.8	0.29	14 000	7 800
30	CPB30ZM	1 37/64	63/64	3 15/64	1 11/16	3/4	4 1/4	5 3/64	6 1/4	53/64	35/64	1/2	7/8	1.08	4 380	2 520
		40	25	82	42.9	19	108	128	159	21	14	12	22.2	0.49	19 500	11 200
35	CPB35ZM	1 49/64	1 1/16	3 31/32	1 7/8	3/4	4 11/16	5 1/4	6 15/32	53/64	35/64	1/2	1	1.46	5 730	3 440
		45	27	93	47.6	19	119	133	164	21	14	12	25.4	0.66	25 500	15 300
40	CPB40ZM	1 57/64	1 3/16	3 29/32	1 15/16	25/32	5 5/64	5 5/8	6 57/64	53/64	35/64	1/2	1 3/16	1.90	6 900	4 270
		48	30	99	49.2	20	129	143	175	21	14	12	30	0.86	30 700	19 000

MRC Marathon Series Composite Mounted Bearing Units are greased and sealed for life. MRC does not recommend regreasing. If required, units with relubrication fittings are available for your application. Adding a "G" suffix to the part number denotes a regreasable unit.

1) Cast polymer housing. No steel coils.

2) Check with MRC for availability

**CPB Composite
Pillow Block Units**
Stainless Steel Insert Bearing



For Inch Shafts $\frac{3}{4}$ – $1\frac{1}{2}$

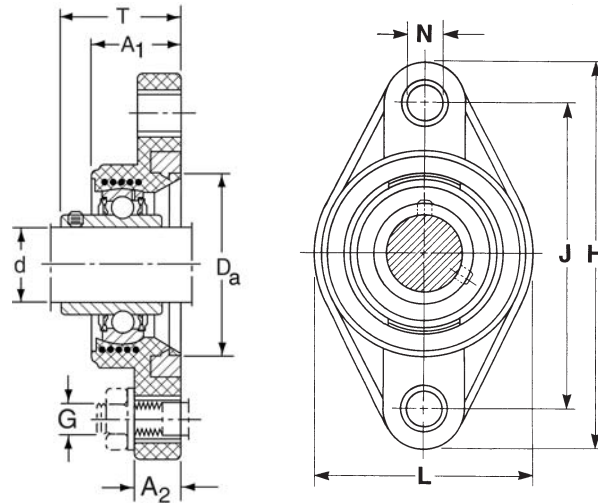
Shaft Dia d in	Pillow Block Designation	A	A ₁	H	H ₁	H ₂	J		L	N	N ₁	G	S ₁	Weight kg	Basic Radial Load Rating		
							Min	Max							Dynamic C	Static C ₀	
$\frac{3}{4}$	CPB012SS	$\frac{1\frac{1}{4}}$ 32	$\frac{53}{64}$ 21	$\frac{2\frac{1}{2}}$ 64	$\frac{15}{16}$ 33.3	$\frac{5}{8}$ 16	$\frac{3\frac{19}{32}}$ 91.5	$\frac{4}{4}$ 101.5	$\frac{4\frac{31}{32}}$ 126	$\frac{21}{32}$ 17	$\frac{29}{64}$ 11.5	$\frac{3}{8}$ 10	$\frac{23}{32}$ 18.3	0.53 0.24	2 380 10 600	1 470 6 550	
1	CPB100SS	$\frac{1\frac{1}{4}}$ 32	$\frac{7}{8}$ 22	$\frac{2\frac{25}{32}}$ 70.5	$\frac{17}{16}$ 36.5	$\frac{5}{8}$ 16	$\frac{3\frac{29}{32}}$ 99.5	$\frac{4\frac{11}{32}}$ 110.5	$\frac{5\frac{9}{32}}$ 134	$\frac{21}{32}$ 17	$\frac{29}{64}$ 11.5	$\frac{3}{8}$ 10	$\frac{25}{32}$ 19.8	0.62 0.28	2 520 11 200	1 750 7 800	
$\frac{13}{16}$	CPB103SS	$\frac{1\frac{37}{64}}$ 40	$\frac{63}{64}$ 25	$\frac{3\frac{15}{64}}$ 82	$\frac{1\frac{11}{16}}$ 42.9	$\frac{3}{4}$ 19	$\frac{4\frac{1}{4}}$ 108	$\frac{5\frac{3}{64}}$ 128	$\frac{6\frac{1}{4}}$ 159	$\frac{53}{64}$ 21	$\frac{35}{64}$ 14	$\frac{1}{2}$ 12	$\frac{7}{8}$ 22.2	1.04 0.47	3 510 15 600	2 520 11 200	
$1\frac{1}{4}$	CPB104SSR	$\frac{1\frac{37}{64}}$ 40	$\frac{63}{64}$ 25	$\frac{3\frac{15}{64}}$ 82	$\frac{1\frac{11}{16}}$ 42.9	$\frac{3}{4}$ 19	$\frac{4\frac{1}{4}}$ 108	$\frac{5\frac{3}{64}}$ 128	$\frac{6\frac{1}{4}}$ 159	$\frac{53}{64}$ 21	$\frac{35}{64}$ 14	$\frac{1}{2}$ 12	$\frac{7}{8}$ 22.2	1.04 0.47	3 510 15 600	2 520 11 200	
$1\frac{1}{4}$	CPB104SS	$\frac{1\frac{49}{64}}$ 45	$\frac{1\frac{1}{16}}$ 27	$\frac{3\frac{21}{32}}$ 93	$\frac{1\frac{7}{8}}$ 47.6	$\frac{3}{4}$ 19	$\frac{4\frac{11}{16}}$ 119	$\frac{5\frac{1}{4}}$ 133	$\frac{6\frac{15}{32}}$ 164	$\frac{53}{64}$ 21	$\frac{35}{64}$ 14	$\frac{1}{2}$ 12	1 25.4	1.57 0.71	4 560 20 300	3 440 15 300	
$1\frac{3}{8}$	CPB106SS	$\frac{1\frac{49}{64}}$ 45	$\frac{1\frac{1}{16}}$ 27	$\frac{3\frac{21}{32}}$ 93	$\frac{1\frac{7}{8}}$ 47.6	$\frac{3}{4}$ 19	$\frac{4\frac{11}{16}}$ 119	$\frac{5\frac{1}{4}}$ 133	$\frac{6\frac{15}{32}}$ 164	$\frac{53}{64}$ 21	$\frac{35}{64}$ 14	$\frac{1}{2}$ 12	1 25.4	1.44 0.65	4 560 20 300	3 440 15 300	
$1\frac{7}{16}$	CPB107SS	$\frac{1\frac{49}{64}}$ 45	$\frac{1\frac{1}{16}}$ 27	$\frac{3\frac{21}{32}}$ 93	$\frac{1\frac{7}{8}}$ 47.6	$\frac{3}{4}$ 19	$\frac{4\frac{11}{16}}$ 119	$\frac{5\frac{1}{4}}$ 133	$\frac{6\frac{15}{32}}$ 164	$\frac{53}{64}$ 21	$\frac{35}{64}$ 14	$\frac{1}{2}$ 12	1 25.4	1.37 0.62	4 560 20 300	3 440 15 300	
$1\frac{1}{2}$	CPB108SS	$\frac{1\frac{57}{64}}$ 48	$\frac{1\frac{3}{16}}$ 30	$\frac{3\frac{29}{32}}$ 99	$\frac{1\frac{15}{16}}$ 49.2	$\frac{25}{32}$ 20	$\frac{5\frac{5}{64}}$ 129	$\frac{5\frac{5}{8}}$ 143	$\frac{6\frac{57}{64}}$ 175	$\frac{53}{64}$ 21	$\frac{35}{64}$ 14	$\frac{1}{2}$ 12	$\frac{1\frac{3}{16}}$ 30	1.98 0.90	5 550 24 700	4 270 19 000	

For Metric Shafts 20mm – 40mm

Shaft Dia d mm	Pillow Block Designation	A	A ₁	H	H ₁	H ₂	J		L	N	N ₁	G	S ₁	Weight kg	Basic Radial Load Rating		
							Min	Max							Dynamic C	Static C ₀	
20	CPB20SS	$\frac{1\frac{1}{4}}$ 32	$\frac{53}{64}$ 21	$\frac{2\frac{1}{2}}$ 64	$\frac{15}{16}$ 33.3	$\frac{5}{8}$ 16	$\frac{3\frac{19}{32}}$ 91.5	$\frac{4}{4}$ 101.5	$\frac{4\frac{31}{32}}$ 126	$\frac{21}{32}$ 17	$\frac{29}{64}$ 11.5	$\frac{3}{8}$ 10	$\frac{23}{32}$ 18.3	0.53 0.24	2 380 10 600	1 470 6 550	
25	CPB25SS	$\frac{1\frac{1}{4}}$ 32	$\frac{7}{8}$ 22	$\frac{2\frac{25}{32}}$ 70.5	$\frac{17}{16}$ 36.5	$\frac{5}{8}$ 16	$\frac{3\frac{29}{32}}$ 99.5	$\frac{4\frac{11}{32}}$ 110.5	$\frac{5\frac{9}{32}}$ 134	$\frac{21}{32}$ 17	$\frac{29}{64}$ 11.5	$\frac{3}{8}$ 10	$\frac{25}{32}$ 19.8	0.64 0.29	2 520 11 200	1 750 7 800	
30	CPB30SS	$\frac{1\frac{37}{64}}$ 40	$\frac{63}{64}$ 25	$\frac{3\frac{15}{64}}$ 82	$\frac{1\frac{11}{16}}$ 42.9	$\frac{3}{4}$ 19	$\frac{4\frac{1}{4}}$ 108	$\frac{5\frac{3}{64}}$ 128	$\frac{6\frac{1}{4}}$ 159	$\frac{53}{64}$ 21	$\frac{35}{64}$ 14	$\frac{1}{2}$ 12	$\frac{7}{8}$ 22.2	1.08 0.49	3 510 15 600	2 520 11 200	
35	CPB35SS	$\frac{1\frac{49}{64}}$ 45	$\frac{1\frac{1}{16}}$ 27	$\frac{3\frac{21}{32}}$ 93	$\frac{1\frac{7}{8}}$ 47.6	$\frac{3}{4}$ 19	$\frac{4\frac{11}{16}}$ 119	$\frac{5\frac{1}{4}}$ 133	$\frac{6\frac{15}{32}}$ 164	$\frac{53}{64}$ 21	$\frac{35}{64}$ 14	$\frac{1}{2}$ 12	1 25.4	1.46 0.66	4 560 20 300	3 440 15 300	
40	CPB40SS	$\frac{1\frac{57}{64}}$ 48	$\frac{1\frac{3}{16}}$ 30	$\frac{3\frac{29}{32}}$ 99	$\frac{1\frac{15}{16}}$ 49.2	$\frac{25}{32}$ 20	$\frac{5\frac{5}{64}}$ 129	$\frac{5\frac{5}{8}}$ 143	$\frac{6\frac{57}{64}}$ 175	$\frac{53}{64}$ 21	$\frac{35}{64}$ 14	$\frac{1}{2}$ 12	$\frac{1\frac{3}{16}}$ 30	1.90 0.86	5 550 24 700	4 270 19 000	

MRC Marathon Series Composite Mounted Bearing Units are greased and sealed for life. MRC does not recommend regreasing. If required, units with relubrication fittings are available for your application. Adding a "G" suffix to the part number denotes a regreasable unit.

C2F Composite Two-Bolt Flange Units ZMaRC-Coated Insert Bearing



For Inch Shafts $\frac{3}{4}$ – $1\frac{15}{16}$

Shaft Dia d in	Flange Unit Designation	A ₁ in mm	A ₂ in mm	D _a in mm	H in mm	J in mm	L in mm	N in mm	G in mm	T in mm	Weight lb kg	Basic Radial Load Rating	
												Dynamic C lbf N	Static C ₀ lbf N
$\frac{3}{4}$	C2F012ZM	$\frac{15}{32}$	$\frac{19}{32}$	2	$4\frac{13}{32}$	$3\frac{17}{32}$	$2\frac{3}{8}$	$\frac{29}{64}$	$\frac{3}{8}$	$\frac{115}{32}$	0.53	2 860	1 470
		29.5	15	50.8	112	90	60.5	11.5	10	37.3	0.24	12 700	6 550
$\frac{15}{16}$	C2F015ZM	$\frac{13}{16}$	$\frac{19}{32}$	$2\frac{1}{2}$	$4\frac{7}{8}$	$3\frac{29}{32}$	$2\frac{3}{4}$	$\frac{29}{64}$	$\frac{3}{8}$	$\frac{117}{32}$	0.67	3 150	1 750
		30	15	63.5	124	99	70	11.5	10	38.8	0.30	14 000	7 800
1	C2F100ZM	$\frac{13}{16}$	$\frac{19}{32}$	$2\frac{1}{2}$	$4\frac{7}{8}$	$3\frac{29}{32}$	$2\frac{3}{4}$	$\frac{29}{64}$	$\frac{3}{8}$	$\frac{117}{32}$	0.62	3 150	1 750
		30	15	63.5	124	99	70	11.5	10	38.8	0.28	14 000	7 800
$\frac{1}{8}$	C2F102ZM	$\frac{19}{32}$	$\frac{19}{32}$	3	$5\frac{39}{64}$	$4\frac{19}{32}$	$3\frac{17}{64}$	$\frac{29}{64}$	$\frac{3}{8}$	$\frac{121}{32}$	0.99	4 380	2 520
		33	15	76.2	142.5	116.5	83	11.5	10	42.2	0.45	19 500	11 200
$\frac{13}{16}$	C2F103ZM	$\frac{19}{32}$	$\frac{19}{32}$	3	$5\frac{39}{64}$	$4\frac{19}{32}$	$3\frac{17}{64}$	$\frac{29}{64}$	$\frac{3}{8}$	$\frac{121}{32}$	0.93	4 380	2 520
		33	15	76.2	142.5	116.5	83	11.5	10	42.2	0.42	19 500	11 200
$\frac{1}{4}$	C2F104ZMR	$\frac{19}{32}$	$\frac{19}{32}$	3	$5\frac{39}{64}$	$4\frac{19}{32}$	$3\frac{17}{64}$	$\frac{29}{64}$	$\frac{3}{8}$	$\frac{121}{32}$	0.88	4 380	2 520
		33	15	76.2	142.5	116.5	83	11.5	10	42.2	0.40	19 500	11 200
$\frac{1}{4}$	C2F104ZM	$\frac{13}{8}$	$\frac{21}{32}$	$3\frac{1}{2}$	$6\frac{1}{8}$	$5\frac{1}{8}$	$3\frac{25}{32}$	$\frac{35}{64}$	$\frac{1}{2}$	$\frac{153}{64}$	1.46	5 730	3 440
		35	17	88.9	156	130	96	14	12	46.4	0.66	25 500	15 300
$\frac{17}{16}$	C2F107ZM	$\frac{13}{8}$	$\frac{21}{32}$	$3\frac{1}{2}$	$6\frac{1}{8}$	$5\frac{1}{8}$	$3\frac{25}{32}$	$\frac{35}{64}$	$\frac{1}{2}$	$\frac{153}{64}$	1.28	5 730	3 440
		35	17	88.9	156	130	96	14	12	46.4	0.58	25 500	15 300
$\frac{1}{2}$	C2F108ZM ¹⁾	$\frac{11}{4}$	$\frac{9}{16}$	$3\frac{1}{2}$	$6\frac{25}{32}$	$5\frac{21}{32}$	$4\frac{9}{16}$	$\frac{17}{32}$	$\frac{1}{2}$	$\frac{21}{32}$	1.90	6 900	4 270
		31.8	14.3	88.9	172.2	143.7	115.9	13.5	12	51.66	0.86	30 700	19 000
$\frac{15}{16}$	C2F115ZM ^{1,2)}	$\frac{11}{4}$	$\frac{5}{8}$	4	$7\frac{5}{16}$	$6\frac{3}{16}$	$5\frac{1}{16}$	$\frac{17}{32}$	$\frac{1}{2}$	$\frac{21}{8}$	2.25	7 890	5 220
		31.8	15.9	101.6	185.7	157.2	128.6	13.5	12	54	1.02	35 100	23 200

For Metric Shafts 20mm – 40mm

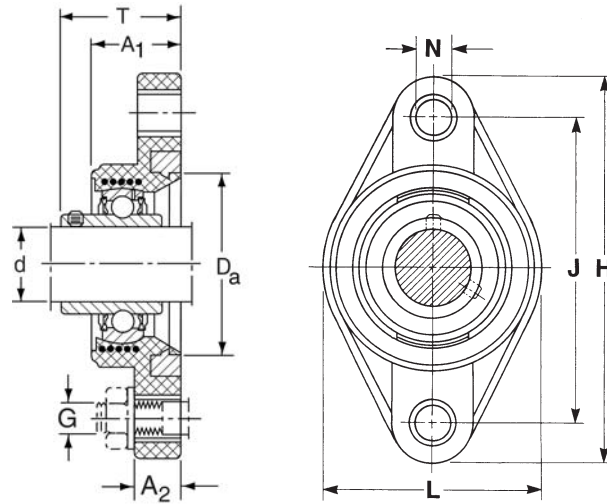
Shaft Dia d mm	Flange Unit Designation	A ₁ in mm	A ₂ in mm	D _a in mm	H in mm	J in mm	L in mm	N in mm	G in mm	T in mm	Weight lb kg	Basic Radial Load Rating	
												Dynamic C lbf N	Static C ₀ lbf N
20	C2F20ZM	$\frac{15}{32}$	$\frac{19}{32}$	2	$4\frac{13}{32}$	$3\frac{17}{32}$	$2\frac{3}{8}$	$\frac{29}{64}$	$\frac{3}{8}$	$\frac{115}{32}$	0.53	2 860	1 470
		29.5	15	50.8	112	90	60.5	11.5	10	37.3	0.24	12 700	6 550
25	C2F25ZM	$\frac{13}{16}$	$\frac{19}{32}$	$2\frac{1}{2}$	$4\frac{7}{8}$	$3\frac{29}{32}$	$2\frac{3}{4}$	$\frac{29}{64}$	$\frac{3}{8}$	$\frac{117}{32}$	0.64	3 150	1 750
		30	15	63.5	124	99	70	11.5	10	38.8	0.29	14 000	7 800
30	C2F30ZM	$\frac{19}{32}$	$\frac{19}{32}$	3	$5\frac{39}{64}$	$4\frac{19}{32}$	$3\frac{17}{64}$	$\frac{29}{64}$	$\frac{3}{8}$	$\frac{121}{32}$	0.97	4 380	2 520
		33	15	76.2	142.5	116.5	83	11.5	10	42.2	0.44	19 500	11 200
35	C2F35ZM	$\frac{13}{8}$	$\frac{21}{32}$	$3\frac{1}{2}$	$6\frac{1}{8}$	$5\frac{1}{8}$	$3\frac{25}{32}$	$\frac{35}{64}$	$\frac{1}{2}$	$\frac{153}{64}$	1.35	5 730	3 440
		35	17	88.9	156	130	96	14	12	46.4	0.61	25 500	15 300
40	C2F40ZM ¹⁾	$\frac{11}{4}$	$\frac{9}{16}$	$3\frac{1}{2}$	$6\frac{25}{32}$	$5\frac{21}{32}$	$4\frac{9}{16}$	$\frac{17}{32}$	$\frac{1}{2}$	$\frac{21}{32}$	1.90	6 900	4 270
		31.8	14.3	88.9	172.2	143.7	115.9	13.5	12	51.7	0.86	30 700	19 000

MRC Marathon Series Composite Mounted Bearing Units are greased and sealed for life. MRC does not recommend regreasing. If required, units with relubrication fittings are available for your application. Adding a "G" suffix to the part number denotes a regreasable unit.

¹⁾ Cast polymer housing, no steel coils.

²⁾ Check with MRC for availability

C2F Composite
Two-Bolt Flange Units
 Stainless Steel Insert Bearing



For Inch Shafts ^{3/4} – 1 ^{1/2}

Shaft Dia d in	Flange Unit Designation	A ₁ in mm	A ₂ in mm	D _a in mm	H in mm	J in mm	L in mm	N in mm	G in mm	T in mm	Weight lb kg	Basic Radial Load Rating	
												Dynamic C lbf N	Static C ₀ lbf N
3/4	C2F012SS	15/32 29.5	19/32 15	2 50.8	413/32 112	317/32 90	23/8 60.5	29/64 11.5	3/8 10	115/32 37.3	0.53 0.24	2 380 10 600	1 470 6 550
1	C2F100SS	13/16 30	19/32 15	2 1/2 63.5	47/8 124	329/32 99	23/4 70	29/64 11.5	3/8 10	117/32 38.8	0.62 0.28	2 520 11 200	1 750 7 800
13/16	C2F103SS	19/32 33	19/32 15	3 76.2	539/64 142.5	419/32 116.5	317/64 83	29/64 11.5	3/8 10	121/32 42.2	0.93 0.42	3 510 15 600	2 520 11 200
11/4	C2F104SSR	19/32 33	19/32 15	3 76.2	539/64 142.5	419/32 116.5	317/64 83	29/64 11.5	3/8 10	121/32 42.2	0.93 0.42	3 510 15 600	2 520 11 200
11/4	C2F104SS	13/8 35	21/32 17	3 1/2 88.9	61/8 156	51/8 130	325/32 96	35/64 14	1/2 12	153/64 46.4	1.46 0.66	4 560 20 300	3 440 15 300
13/8	C2F106SS	13/8 35	21/32 17	3 1/2 88.9	61/8 156	51/8 130	325/32 96	35/64 14	1/2 12	153/64 46.4	1.35 0.61	4 560 20 300	3 440 15 300
17/16	C2F107SS	13/8 35	21/32 17	3 1/2 88.9	61/8 156	51/8 130	325/32 96	35/64 14	1/2 12	153/64 46.4	1.28 0.58	4 560 20 300	3 440 15 300
1 1/2	C2F108SS ¹⁾	1 1/4 31.8	9/16 14.3	3 1/2 88.9	625/32 172.2	521/32 143.7	49/16 115.9	17/32 13.5	1/2 12	21/32 51.7	1.90 0.86	5 550 24 700	4 270 19 000

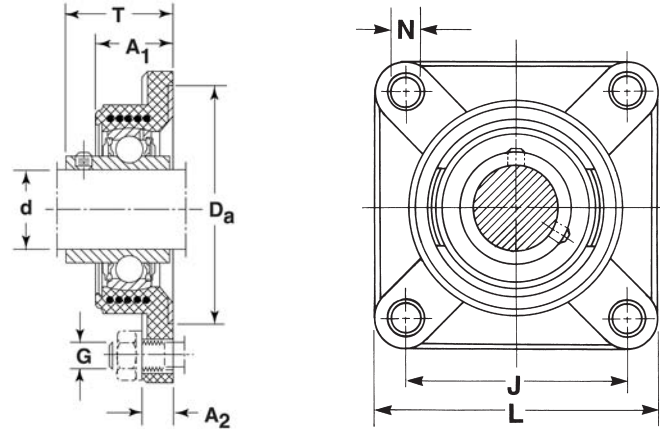
For Metric Shafts 20mm – 40mm

Shaft Dia d mm	Flange Unit Designation	A ₁ in mm	A ₂ in mm	D _a in mm	H in mm	J in mm	L in mm	N in mm	G in mm	T in mm	Weight lb kg	Basic Radial Load Rating	
												Dynamic C lbf N	Static C ₀ lbf N
20	C2F20SS	15/32 29.5	19/32 15	2 50.8	413/32 112	317/32 90	23/8 60.5	29/64 11.5	3/8 10	115/32 37.3	0.53 0.24	2 380 10 600	1 470 6 550
25	C2F25SS	13/16 30	19/32 15	2 1/2 63.5	47/8 124	329/32 99	23/4 70	29/64 11.5	3/8 10	117/32 38.8	0.64 0.29	2 520 11 200	1 750 7 800
30	C2F30SS	19/32 33	19/32 15	3 76.2	539/64 142.5	419/32 116.5	317/64 83	29/64 11.5	3/8 10	121/32 42.2	0.97 0.44	3 510 15 600	2 520 11 200
35	C2F35SS	13/8 35	21/32 17	3 1/2 88.9	61/8 156	51/8 130	325/32 96	35/64 14	1/2 12	153/64 46.4	1.35 0.61	4 560 20 300	3 440 15 300
40	C2F40SS ¹⁾	1 1/4 31.8	9/16 14.3	3 1/2 88.9	625/32 172.2	521/32 143.7	49/16 115.9	17/32 13.5	1/2 12	21/32 51.7	1.90 0.86	5 550 24 700	4 270 19 000

MRC Marathon Series Composite Mounted Bearing Units are greased and sealed for life. MRC does not recommend regreasing. If required, units with relubrication fittings are available for your application. Adding a "G" suffix to the part number denotes a regreasable unit.

¹⁾Cast polymer housing, no steel coils.

C4F Composite Four-Bolt Flange Units ZMaRC-Coated Insert Bearing



For Inch Shafts ^{3/4} – ^{1 15/16}

Shaft Dia d in	Flange Unit Designation	A ₁ in mm	A ₂ in mm	D _a in mm	J in mm	L in mm	N in mm	G in mm	T in mm	Weight lb kg	Basic Radial Load Rating	
											Dynamic C	Static C ₀
											lbf N	lbf N
3/4	C4F012ZM	13/16 30	19/32 15	2 11/16 68.5	2 1/2 63.5	3 3/8 86	29/64 11.5	3/8 10	1 15/32 37.3	0.57 0.26	2 860 12 700	1 470 6 550
15/16	C4F015ZM	1 7/32 31	19/32 15	2 15/16 74.6	2 3/4 70	3 3/4 95	29/64 11.5	3/8 10	1 17/32 38.8	0.76 0.34	3 150 14 000	1 750 7 800
1	C4F100ZM	1 7/32 31	19/32 15	2 15/16 74.6	2 3/4 70	3 3/4 95	29/64 11.5	3/8 10	1 17/32 38.8	0.71 0.32	3 150 14 000	1 750 7 800
1 1/8	C4F102ZM	1 9/32 33	19/32 15	3 11/16 93.7	3 1/4 82.5	4 1/4 108	29/64 11.5	3/8 10	1 21/32 42.2	1.07 0.49	4 380 19 500	2 520 11 200
1 3/16	C4F103ZM	1 9/32 33	19/32 15	3 11/16 93.7	3 1/4 82.5	4 1/4 108	29/64 11.5	3/8 10	1 21/32 42.2	1.01 0.46	4 380 19 500	2 520 11 200
1 1/4	C4F104ZMR	1 9/32 33	19/32 15	3 11/16 93.7	3 1/4 82.5	4 1/4 108	29/64 11.5	3/8 10	1 21/32 42.2	0.97 0.44	4 380 19 500	2 520 11 200
1 1/4	C4F104ZM	1 3/8 35	2 1/32 17	4 3/16 106.4	3 5/8 92	4 5/8 118	35/64 14	1/2 12	1 53/64 46.4	1.57 0.71	5 730 25 500	3 440 15 300
1 7/16	C4F107ZM	1 3/8 35	2 1/32 17	4 3/16 106.4	3 5/8 92	4 5/8 118	35/64 14	1/2 12	1 53/64 46.4	1.37 0.62	5 730 25 500	3 440 15 300
1 1/2	C4F108ZM	1 17/32 39	2 1/32 17	4 9/16 115.9	4 101.5	5 1/8 130	35/64 14	1/2 12	2 9/64 54.2	1.98 0.90	6 900 30 700	4 270 19 000
1 15/16	C4F115ZM ^{1,2)}	1 1/4 31.8	5/8 15.9	4 15/16 125.4	4 3/8 111.1	5 1/2 139.7	35/64 14	1/2 12	2 1/8 54.0	2.45 1.21	7 890 35 100	5 220 23 200

For Metric Shafts 20mm – 40mm

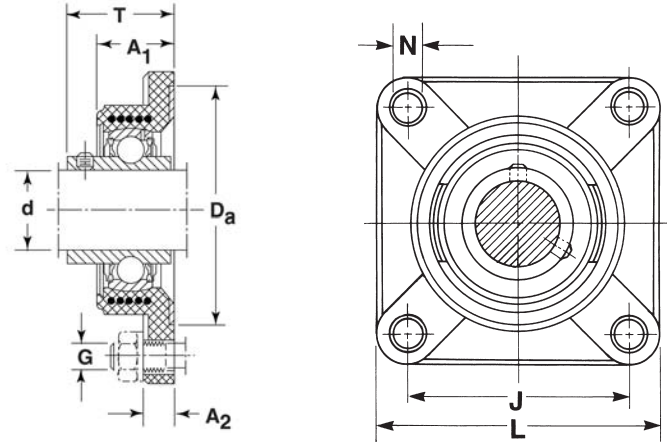
Shaft Dia d mm	Flange Unit Designation	A ₁ in mm	A ₂ in mm	D _a in mm	J in mm	L in mm	N in mm	G in mm	T in mm	Weight lb kg	Basic Radial Load Rating	
											Dynamic C	Static C ₀
											lbf N	lbf N
20	C4F20ZM	13/16 30	19/32 15	2 11/16 68.5	2 1/2 63.5	3 3/8 86	29/64 11.5	3/8 10	1 15/32 37.3	0.57 0.26	2 860 12 700	1 470 6 550
25	C4F25ZM	1 7/32 31	19/32 15	2 15/16 74.6	2 3/4 70	3 3/4 95	29/64 11.5	3/8 10	1 17/32 38.8	0.73 0.33	3 150 14 000	1 750 7 800
30	C4F30ZM	1 9/32 33	19/32 15	3 11/16 93.7	3 1/4 82.5	4 1/4 108	29/64 11.5	3/8 10	1 21/32 42.2	1.06 0.48	4 380 19 500	2 520 11 200
35	C4F35ZM	1 3/8 35	2 1/32 17	4 3/16 106.4	3 5/8 92	4 5/8 118	35/64 14	1/2 12	1 53/64 46.4	1.46 0.66	5 730 25 500	3 440 15 300
40	C4F40ZM	1 17/32 39	2 1/32 17	4 9/16 115.9	4 101.5	5 1/8 130	35/64 14	1/2 12	2 9/64 54.2	1.92 0.87	6 900 30 700	4 270 19 000

MRC Marathon Series Composite Mounted Bearing Units are greased and sealed for life. MRC does not recommend regreasing. If required, units with relubrication fittings are available for your application. Adding a "G" suffix to the part number denotes a regreasable unit.

1) Cast polymer housing. No steel coil

2) Check with MRC for availability

C4F Composite
Four-Bolt Flange Units
 Stainless Steel Insert Bearing



For Inch Shafts ^{3/4} – 1 1/2

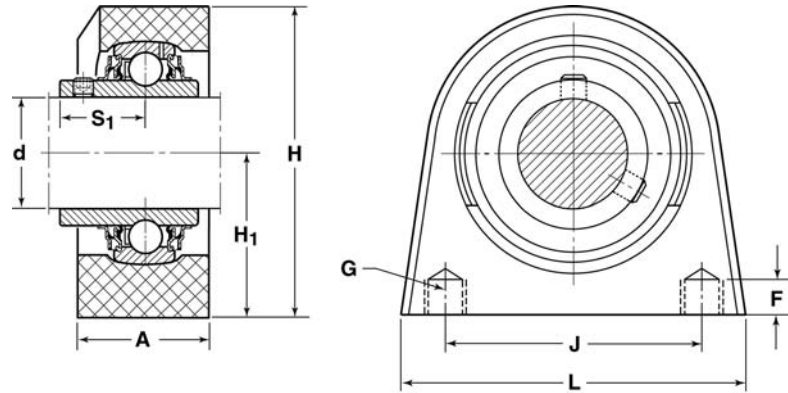
Shaft Dia d in	Flange Unit Designation	A ₁ in mm	A ₂ in mm	D _a in mm	J in mm	L in mm	N in mm	G in mm	T in mm	Weight lb kg	Basic Radial Load Rating	
											Dynamic C lbf N	Static C ₀ lbf N
3/4	C4F012SS	1 ^{3/16} 30	19/32 15	2 ^{11/16} 68.3	2 ^{1/2} 63.5	3 ^{3/8} 86	29/64 11.5	3/8 10	1 ^{15/32} 37.3	0.57 0.26	2 380 10 600	1 470 6 550
1	C4F100SS	1 ^{7/32} 31	19/32 15	2 ^{15/16} 74.6	2 ^{3/4} 70	3 ^{3/4} 95	29/64 11.5	3/8 10	1 ^{17/32} 38.8	0.71 0.32	2 520 11 200	1 750 7 800
1 ^{3/16}	C4F103SS	19/32 33	19/32 15	3 ^{11/16} 93.7	3 ^{1/4} 82.5	4 ^{1/4} 108	29/64 11.5	3/8 10	1 ^{21/32} 42.2	1.01 0.46	3 510 15 600	2 520 11 200
1 ^{1/4}	C4F104SSR	1 ^{1/16} 27	1/2 12.7	3 ^{11/16} 93.7	3 ^{1/4} 82.5	4 ^{1/4} 108	15/32 11.9	7/16 11.1	1 ^{43/64} 42.5	1.40 0.63	4 560 20 300	3 440 15 300
1 ^{1/4}	C4F104SS	1 ^{3/8} 35	2 ^{1/32} 17	4 ^{3/16} 106.4	3 ^{5/8} 92	4 ^{5/8} 118	35/64 14	1/2 12	1 ^{53/64} 46.4	1.57 0.71	4 560 20 300	3 440 15 300
1 ^{3/8}	C4F106SS	1 ^{3/8} 35	2 ^{1/32} 17	4 ^{3/16} 106.4	3 ^{5/8} 92	4 ^{5/8} 118	35/64 14	1/2 12	1 ^{53/64} 46.4	1.46 0.66	4 560 20 300	3 440 15 300
1 ^{7/16}	C4F107SS	1 ^{3/8} 35	2 ^{1/32} 17	4 ^{3/16} 106.4	3 ^{5/8} 92	4 ^{5/8} 118	35/64 14	1/2 12	1 ^{53/64} 46.4	1.37 0.62	4 560 20 300	3 440 15 300
1 ^{1/2}	C4F108SS	1 ^{17/32} 39	2 ^{1/32} 17	4 ^{9/16} 115.9	4 101.5	5 ^{1/8} 130	35/64 14	1/2 12	2 ^{9/64} 54.2	1.98 0.90	5 550 24 700	4 270 19 000

For Metric Shafts 20mm – 40mm

Shaft Dia d mm	Flange Unit Designation	A ₁ in mm	A ₂ in mm	D _a in mm	J in mm	L in mm	N in mm	G in mm	T in mm	Weight lb mm	Basic Radial Load Rating	
											Dynamic C lbf kg	Static C ₀ lbf N
20	C4F20SS	1 ^{3/16} 30	19/32 15	2 ^{11/16} 68.3	2 ^{1/2} 63.5	3 ^{3/8} 86	29/64 11.5	3/8 10	1 ^{15/32} 37.3	0.57 0.26	2 380 10 600	1 470 6 550
25	C4F25SS	1 ^{7/32} 31	19/32 15	2 ^{15/16} 74.6	2 ^{3/4} 70	3 ^{3/4} 95	29/64 11.5	3/8 10	1 ^{17/32} 38.8	0.73 0.33	2 520 11 200	1 750 7 800
30	C4F30SS	19/32 33	19/32 15	3 ^{11/16} 93.7	3 ^{1/4} 82.5	4 ^{1/4} 108	29/64 11.5	3/8 10	1 ^{21/32} 42.2	1.06 0.48	3 510 15 600	2 520 11 200
35	C4F35SS	1 ^{3/8} 35	2 ^{1/32} 17	4 ^{3/16} 106.4	3 ^{5/8} 92	4 ^{5/8} 118	35/64 14	1/2 12	1 ^{53/64} 46.4	1.46 0.66	4 560 20 300	3 440 15 300
40	C4F40SS	1 ^{17/32} 39	2 ^{1/32} 17	4 ^{9/16} 115.9	4 101.5	5 ^{1/8} 130	35/64 14	1/2 12	2 ^{9/64} 54.2	1.92 0.87	5 550 24 700	4 270 19 000

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CTB
Composite Tapped-Base Units
 ZMaRC-Coated Insert Bearing



For Inch Shafts ^{3/4} – 1^{15/16}

Shaft Dia d in	Tapped-Base Unit Designation	A in mm	H in mm	H ₁ in mm	J in mm	L in mm	F in mm	G UNC threads	S ₁ in mm	Weight lb kg	Basic Radial Load Rating	
											Dynamic C lbf N	Static C ₀ lbf N
^{3/4}	CTB012ZM	^{17/16} 36.5	^{25/8} 66.7	^{15/16} 33.3	2 50.8	3 76.2	^{1/2} 12.7	^{3/8} –16	^{23/32} 18.3	0.51 0.23	2 860 12 700	1 470 6 550
^{15/16}	CTB015ZM	^{17/16} 36.5	^{215/16} 74.6	^{17/16} 36.5	2 50.8	^{3/4} 82.5	^{1/2} 12.7	^{3/8} –16	^{25/32} 19.8	0.72 0.32	3 150 14 000	1 750 7 800
1	CTB100ZM	^{17/16} 36.5	^{215/16} 74.6	^{17/16} 36.5	2 50.8	^{3/4} 82.5	^{1/2} 12.7	^{3/8} –16	^{25/32} 19.8	0.67 0.30	3 150 14 000	1 750 7 800
^{11/8}	CTB102ZM	^{15/8} 41.3	^{33/8} 85.7	^{111/16} 42.9	3 76.2	^{41/4} 108.0	^{5/8} 15.9	^{7/16} –14	^{7/8} 22.2	1.06 0.48	4 380 19 500	2 520 11 200
^{13/16}	CTB103ZM	^{15/8} 41.3	^{33/8} 85.7	^{111/16} 42.9	3 76.2	^{41/4} 108.0	^{5/8} 15.9	^{7/16} –14	^{7/8} 22.2	1.00 0.45	4 380 19 500	2 520 11 200
^{11/4}	CTB104ZMR	^{15/8} 41.3	^{33/8} 85.7	^{111/16} 42.9	3 76.2	^{41/4} 108.0	^{5/8} 15.9	^{7/16} –14	^{7/8} 22.2	1.00 0.45	4 380 19 500	2 520 11 200
^{11/4}	CTB104ZM	^{13/4} 44.5	^{37/8} 98.4	^{17/8} 47.6	^{31/4} 82.6	^{41/2} 114.3	^{3/4} 19.1	^{1/2} –13	1 25.4	1.60 0.73	5 730 25 500	3 440 15 300
^{17/16}	CTB107ZM	^{13/4} 44.5	^{37/8} 98.4	^{17/8} 47.6	^{31/4} 82.6	^{41/2} 114.3	^{3/4} 19.1	^{1/2} –13	1 25.4	1.60 0.73	5 730 25 500	3 440 15 300
^{11/2}	CTB108ZM	^{17/8} 47.6	^{41/8} 104.8	^{115/16} 49.2	^{31/2} 88.9	^{43/4} 120.7	^{3/4} 19.1	^{1/2} –13	^{13/16} 30	2.00 0.91	6 900 30 700	4 270 19 000
^{115/16}	CTB115ZM	^{21/8} 54	^{43/4} 120.7	^{21/4} 57.2	4 101.6	^{53/4} 146.1	^{7/8} 22.2	^{5/8} –11	^{19/32} 32.6	2.65 1.20	7 890 35 100	5 220 23 200

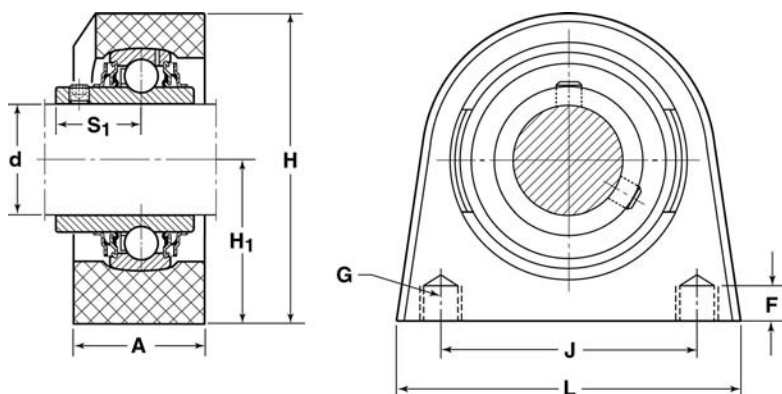
For Metric Shafts 20mm – 40mm

Shaft Dia d mm	Tapped-Base Unit Designation	A in mm	H in mm	H ₁ in mm	J in mm	L in mm	F in mm	G UNC threads	S ₁ in mm	Weight lb kg	Basic Radial Load Rating	
											Dynamic C lbf N	Static C ₀ lbf N
20	CTB20ZM	^{17/16} 36.5	^{25/8} 66.7	^{15/16} 33.3	2 50.8	3 76.2	^{1/2} 12.7	^{3/8} –16	^{23/32} 18.3	0.51 0.23	2 860 12 700	1 470 6 550
25	CTB25ZM	^{17/16} 36.5	^{215/16} 74.6	^{17/16} 36.5	2 50.8	^{3/4} 82.5	^{1/2} 12.7	^{3/8} –16	^{25/32} 19.8	0.67 0.30	3 150 14 000	1 750 7 800
30	CTB30ZM	^{15/8} 41.3	^{33/8} 85.7	^{111/16} 42.9	3 76.2	^{41/4} 108.0	^{5/8} 15.9	^{7/16} –14	^{7/8} 22.2	1.00 0.45	4 380 19 500	2 520 11 200
35	CTB35ZM	^{13/4} 44.5	^{37/8} 98.4	^{17/8} 47.6	^{31/4} 82.6	^{41/2} 114.3	^{3/4} 19.1	^{1/2} –13	1 25.4	1.60 0.73	5 730 25 500	3 440 15 300
40	CTB40ZM	^{17/8} 47.6	^{41/8} 104.8	^{115/16} 49.2	^{31/2} 88.9	^{43/4} 120.7	^{3/4} 19.1	^{1/2} –13	^{13/16} 30	2.00 0.91	6 900 30 700	4 270 19 000

MRC Marathon Series Composite Mounted Bearing Units are greased and sealed for life. MRC does not recommend regreasing. If required, units with relubrication fittings are available for your application. Adding a "G" suffix to the part number denotes a regreasable unit

Cast polymer housing. No steel coils.

CTB
Composite Tapped-Base Units
 Stainless Steel Insert Bearing



For Inch Shafts ^{3/4} – 1^{1/2}

Shaft Dia d in	Tapped-Base Unit Designation	A in mm	H in mm	H ₁ in mm	J in mm	L in mm	F in mm	G UNC threads	S ₁ in mm	Weight lb kg	Basic Radial Load Rating	
											Dynamic C lbf N	Static C ₀ lbf N
^{3/4}	CTB012SS	^{17/16} 36.5	^{25/8} 66.7	^{15/16} 33.3	2 50.8	3 76.2	^{1/2} 12.7	^{3/8} -16	^{23/32} 18.3	0.51 0.23	2 380 10 600	1 470 6 550
1	CTB100SS	^{17/16} 36.5	^{215/16} 74.6	^{17/16} 36.5	2 50.8	^{31/4} 82.5	^{1/2} 12.7	^{3/8} -16	^{25/32} 19.8	0.67 0.30	2 520 11 200	1 750 7 800
^{13/16}	CTB103SS	^{15/8} 41.3	^{33/8} 85.7	^{111/16} 42.9	3 76.2	^{41/4} 108.0	^{5/8} 15.9	^{7/16} -14	^{7/8} 22.2	1.00 0.45	3 500 15 600	2 520 11 200
^{11/4}	CTB104SSR	^{15/8} 41.3	^{33/8} 85.7	^{111/16} 42.9	3 76.2	^{41/4} 108.0	^{5/8} 15.9	^{7/16} -14	1 25.4	1.30 0.59	4 560 20 300	3 440 15 300
^{11/4}	CTB104SS	^{13/4} 44.5	^{37/8} 98.4	^{17/8} 47.6	^{31/4} 82.6	^{41/2} 114.3	^{3/4} 19.1	^{1/2} -13	1 25.4	1.60 0.73	4 560 20 300	3 440 15 300
^{13/8}	CTB106SS	^{13/4} 44.5	^{37/8} 98.4	^{17/8} 47.6	^{31/4} 82.6	^{41/2} 114.3	^{3/4} 19.1	^{1/2} -13	1 25.4	1.60 0.73	4 560 20 300	3 440 15 300
^{17/16}	CTB107SS	^{13/4} 44.5	^{37/8} 98.4	^{17/8} 47.6	^{31/4} 82.6	^{41/2} 114.3	^{3/4} 19.1	^{1/2} -13	1 25.4	1.60 0.73	4 560 20 300	3 440 15 300
1 ^{1/2}	CTB108SS	^{17/8} 47.6	^{41/8} 104.8	^{115/16} 49.2	^{31/2} 88.9	^{43/4} 120.7	^{3/4} 19.1	^{1/2} -13	^{13/16} 30	2.00 0.91	5 550 24 700	4 270 19 000

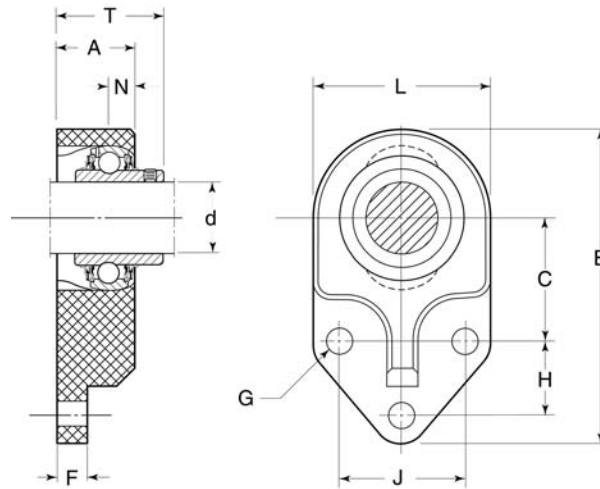
For Metric Shafts 20mm – 40mm

Shaft Dia d mm	Tapped-Base Unit Designation	A in mm	H in mm	H ₁ in mm	J in mm	L in mm	F in mm	G UNC threads	S ₁ in mm	Weight lb kg	Basic Radial Load Rating	
											Dynamic C lbf N	Static C ₀ lbf N
20	CTB20SS	^{17/16} 36.5	^{25/8} 66.7	^{15/16} 33.3	2 50.8	3 76.2	^{1/2} 12.7	^{3/8} -16	^{23/32} 18.3	0.51 0.23	2 380 10 600	1 470 6 550
25	CTB25SS	^{17/16} 36.5	^{215/16} 74.6	^{17/16} 36.5	2 50.8	^{31/4} 82.5	^{1/2} 12.7	^{3/8} -16	^{25/32} 19.8	0.67 0.30	2 520 11 200	1 750 7 800
30	CTB30SS	^{15/8} 41.3	^{33/8} 85.7	^{111/16} 42.9	3 76.2	^{41/4} 108.0	^{5/8} 15.9	^{7/16} -14	^{7/8} 22.2	1.00 0.45	3 500 15 600	2 520 11 200
35	CTB35SS	^{13/4} 44.5	^{37/8} 98.4	^{17/8} 47.6	^{31/4} 82.6	^{41/2} 114.3	^{3/4} 19.1	^{1/2} -13	1 25.4	1.60 0.73	4 560 20 300	3 440 15 300
40	CTB40SS	^{17/8} 47.6	^{41/8} 104.8	^{115/16} 49.2	^{31/2} 88.9	^{43/4} 120.7	^{3/4} 19.1	^{1/2} -13	^{13/16} 30	2.00 0.91	5 550 24 700	4 270 19 000

MRC Marathon Series Composite Mounted Bearing Units are greased and sealed for life. MRC does not recommend regreasing. If required, units with relubrication fittings are available for your application. Adding a "G" suffix to the part number denotes a regreasable unit.

Cast polymer housing. No steel coils.

CBF Composite Three-Bolt Bracket Flange Units ZMaRC-Coated Insert Bearing



For Inch Shafts ^{3/4} – ^{1 15/16}

Shaft Dia d in	Flange Unit Designation	A	F	B	C	L	H	J	N	G	T	Bolt Size	Weight lb kg	Basic Radial Load Rating	
		in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm			Dynamic C lbf N	Static C ₀ lbf N
^{3/4}	CBF012ZM	^{15/16} 23.8	^{7/16} 11.1	^{4 11/32} 110.3	^{1 11/16} 42.9	^{2 9/16} 65.1	^{7/8} 22.2	^{1 1/2} 38.1	^{11/32} 8.7	^{13/32} 10.3	^{1 5/16} 33.3	^{3/8}	0.51 0.23	2 860 12 700	1 470 6 550
^{15/16}	CBF015ZM ²⁾	1 25.4	^{1/2} 12.7	^{4 3/4} 120.7	^{1 13/16} 46.0	^{2 3/4} 69.9	^{1 1/8} 28.6	^{1 5/8} 41.3	^{11/32} 8.7	^{13/32} 10.3	^{1 7/16} 36.5	^{3/8}	0.75 0.34	3 150 14 000	1 750 7 800
1	CBF100ZM	1 25.4	^{1/2} 12.7	^{4 3/4} 120.7	^{1 13/16} 46.0	^{2 3/4} 69.9	^{1 1/8} 28.6	^{1 5/8} 41.3	^{11/32} 8.7	^{13/32} 10.3	^{1 7/16} 36.5	^{3/8}	0.70 0.32	3 150 14 000	1 750 7 800
^{1 1/8}	CBF102ZM	^{1 1/16} 27.0	^{1/2} 12.7	^{5 7/16} 138.1	^{2 1/16} 52.4	^{3 1/4} 82.6	^{1 1/4} 31.8	^{1 7/8} 47.6	^{25/64} 9.9	^{13/32} 10.3	^{1 35/64} 39.3	^{3/8}	1.10 0.50	4 380 19 500	2 520 11 200
^{1 3/16}	CBF103ZM	^{1 1/16} 27.0	^{1/2} 12.7	^{5 7/16} 138.1	^{2 1/16} 52.4	^{3 1/4} 82.6	^{1 1/4} 31.8	^{1 7/8} 47.6	^{25/64} 9.9	^{13/32} 10.3	^{1 35/64} 39.3	^{3/8}	1.00 0.45	4 380 19 500	2 520 11 200
^{1 1/4}	CBF104ZMR	^{1 1/16} 27.0	^{1/2} 12.7	^{5 7/16} 138.1	^{2 1/16} 52.4	^{3 1/4} 82.6	^{1 1/4} 31.8	^{1 7/8} 47.6	^{25/64} 9.9	^{13/32} 10.3	^{1 35/64} 39.3	^{3/8}	1.00 0.45	4 380 19 500	2 520 11 200
^{1 1/4}	CBF104ZM	^{1 7/32} 31.0	^{9/16} 14.3	^{6 3/16} 157.2	^{2 3/8} 60.3	^{3 13/16} 96.8	^{1 1/4} 38.1	2 50.8	^{13/32} 10.4	^{17/32} 13.5	^{1 13/16} 46.0	^{1/2}	1.50 0.68	5 730 25 500	3 440 15 300
^{1 7/16}	CBF107ZM	^{1 7/32} 31.0	^{9/16} 14.3	^{6 3/16} 157.2	^{2 3/8} 60.3	^{3 3/16} 96.8	^{1 1/4} 31.8	2 50.8	^{13/32} 10.4	^{17/32} 13.5	^{1 13/16} 46.0	^{1/2}	1.34 0.61	5 730 25 500	3 440 15 300
^{1 1/2}	CBF108ZM	^{1 1/4} 31.8	^{9/16} 14.3	^{6 11/16} 169.9	^{2 9/16} 65.1	^{4 1/4} 108.0	^{1 3/8} 34.9	^{2 1/4} 57.2	^{13/32} 10.4	^{17/32} 13.5	^{2 1/64} 51.4	^{1/2}	1.90 0.86	6 900 30 700	4 270 19 000
^{1 15/16}	CBF115ZM ²⁾	^{1 1/4} 31.8	^{5/8} 15.9	^{7 5/8} 193.7	^{2 15/16} 74.6	^{4 7/8} 123.8	^{1 5/8} 15.9	^{2 3/4} 69.9	^{13/32} 10.4	^{17/32} 13.5	^{2 1/8} 54.0	^{1/2}	2.25 1.02	7 890 35 100	5 220 23 200

For Metric Shafts 20mm – 40mm

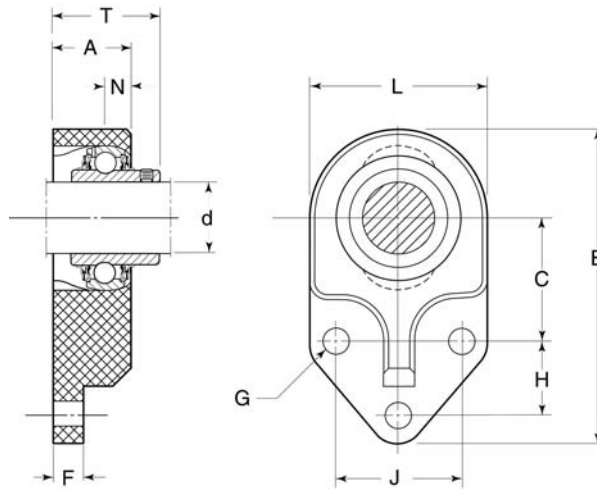
Shaft Dia d mm	Flange Unit Designation	A	F	B	C	L	H	J	N	G	T	Bolt Size	Weight lb kg	Basic Radial Load Rating	
		in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm			Dynamic C lbf N	Static C ₀ lbf N
20	CBF20ZM	^{15/16} 23.8	^{7/16} 11.1	^{4 11/32} 110.3	^{1 11/16} 42.9	^{2 9/16} 65.1	^{7/8} 22.2	^{1 1/2} 38.1	^{11/32} 8.7	^{13/32} 10.3	^{1 5/16} 33.3	^{3/8}	0.51 0.23	2 860 12 700	1 470 6 550
25	CBF25ZM	1 25.4	^{1/2} 12.7	^{4 3/4} 120.7	^{1 13/16} 46.0	^{2 3/4} 69.9	^{1 1/8} 28.6	^{1 5/8} 41.3	^{11/32} 8.7	^{13/32} 10.3	^{1 7/16} 36.5	^{3/8}	0.70 0.32	3 150 14 000	1 750 7 800
30	CBF30ZM	^{1 1/16} 27.0	^{1/2} 12.7	^{5 7/16} 138.1	^{2 1/16} 52.4	^{3 1/4} 82.6	^{1 1/4} 31.8	^{1 7/8} 47.6	^{25/64} 9.9	^{13/32} 10.3	^{1 35/64} 39.3	^{3/8}	1.00 0.45	4 380 19 500	2 520 11 200
35	CBF35ZM	^{1 7/32} 31.0	^{9/16} 14.3	^{6 3/16} 157.2	^{2 3/8} 60.3	^{3 13/16} 96.8	^{1 1/4} 31.8	2 50.8	^{13/32} 10.4	^{17/32} 13.5	^{1 13/16} 46.0	^{1/2}	1.34 0.61	5 730 25 500	3 440 15 300
40	CBF40ZM	^{1 1/4} 31.8	^{9/16} 14.3	^{6 11/16} 169.9	^{2 9/16} 65.1	^{4 1/4} 108.0	^{1 3/8} 34.9	^{2 1/4} 57.2	^{13/32} 10.4	^{17/32} 13.5	^{2 1/64} 51.4	^{1/2}	1.90 0.86	6 900 30 700	4 270 19 000

MRC Marathon Series Composite Mounted Bearing Units are greased and sealed for life. MRC does not recommend regreasing. If required, units with relubrication fittings are available for your application. Adding a "G" suffix to the part number denotes a regreasable unit

Cast polymer housing. No steel coils.

²⁾ Check with MRC for availability

CBF Composite
Three-Bolt Bracket Flange Units
 Stainless Steel Insert Bearing



For Inch Shafts 3/4 – 1 1/2

Shaft Dia d in	Flange Unit Designation	A in	F in	B in	C in	L in	H in	J in	N in	G in	T in	Bolt Size	Weight lb	Basic Radial Load Rating	
														Dynamic C	Static C ₀
														lbf	lbf
3/4	CBF012SS	15/16 23.8	7/16 11.1	4 11/32 110.3	1 11/16 42.9	2 9/16 65.1	7/8 22.2	1 1/2 38.1	11/32 8.7	13/32 10.3	1 5/16 33.3	3/8	0.51 0.23	2 380 10 600	1 470 6 550
1	CBF100SS	1 25.4	1/2 12.7	4 3/4 120.7	1 13/16 46.0	2 3/4 69.9	1 1/8 28.6	1 5/8 41.3	11/32 8.7	13/32 10.3	1 7/16 36.5	3/8	0.70 0.32	2 520 11 200	1 750 7 800
1 3/16	CBF103SS	1 1/16 27.0	1/2 12.7	5 7/16 138.1	2 1/16 52.4	3 1/4 82.6	1 1/4 31.8	1 7/8 47.6	25/64 9.9	13/32 10.3	1 35/64 39.3	3/8	1.00 0.45	3 510 15 600	2 520 11 200
1 1/4	CBF104SSR	1 1/16 27.0	1/2 12.7	5 7/16 138.1	2 1/16 52.4	3 1/4 82.6	1 1/4 31.8	1 7/8 47.6	25/64 9.9	13/32 10.3	1 43/64 42.5	3/8	1.30 0.59	4 560 20 300	3 440 15 300
1 1/4	CBF104SS	1 7/32 31.0	9/16 14.3	6 3/16 157.2	2 3/8 60.3	3 13/16 96.8	1 1/4 31.8	2 50.8	13/32 10.4	17/32 13.5	1 113/16 46.0	1/2	1.50 0.68	4 560 20 300	3 440 15 300
1 3/8	CBF106SS	1 7/32 31.0	9/16 14.3	6 3/16 157.2	2 3/8 60.3	3 13/16 96.8	1 1/4 31.8	2 50.8	13/32 10.4	17/32 13.5	1 113/16 46.0	1/2	1.40 0.63	4 560 20 300	3 440 15 300
1 7/16	CBF107SS	1 7/32 31.0	9/16 14.3	6 3/16 157.2	2 3/8 60.3	3 13/16 96.8	1 1/4 31.8	2 50.8	13/32 10.4	17/32 13.5	1 113/16 46.0	1/2	1.34 0.61	4 560 20 300	3 440 15 300
1 1/2	CBF108SS	1 1/4 31.8	9/16 14.3	6 11/16 169.9	2 9/16 65.1	4 1/4 108.0	1 3/8 34.9	2 1/4 57.2	13/32 10.4	17/32 13.5	2 1/64 51.4	1/2	1.90 0.86	5 550 24 700	4 270 19 000

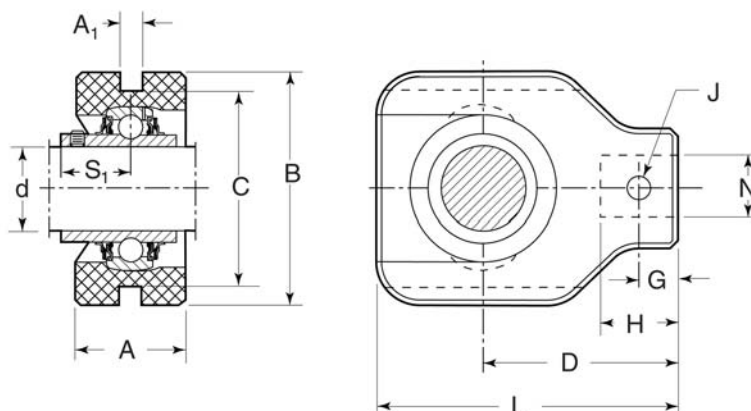
For Metric Shafts 20mm – 40mm

Shaft Dia d mm	Flange Unit Designation	A in	F in	B in	C in	L in	H in	J in	N in	G in	T in	Bolt Size	Weight lb	Basic Radial Load Rating	
														Dynamic C	Static C ₀
														lbf	lbf
20	CBF20SS	15/16 23.8	7/16 11.1	4 11/32 110.3	1 11/16 42.9	2 9/16 65.1	7/8 22.2	1 1/2 38.1	11/32 8.7	13/32 10.3	1 5/16 33.3	3/8	0.51 0.23	2 380 10 600	1 470 6 550
25	CBF25SS	1 25.4	1/2 12.7	4 3/4 120.7	1 13/16 46.0	2 3/4 69.9	1 1/8 28.6	1 5/8 41.3	11/32 8.7	13/32 10.3	1 7/16 36.5	3/8	0.70 0.32	2 520 11 200	1 750 7 800
30	CBF30SS	1 1/16 27.0	1/2 12.7	5 7/16 138.1	2 1/16 52.4	3 1/4 82.6	1 1/4 31.8	1 7/8 47.6	25/64 9.9	13/32 10.3	1 35/64 39.3	3/8	1.00 0.45	3 510 15 600	2 520 11 200
35	CBF35SS	1 7/32 31.0	9/16 14.3	6 3/16 157.2	2 3/8 60.3	3 13/16 96.8	1 1/4 31.8	2 50.8	13/32 10.4	17/32 13.5	1 113/16 46.0	1/2	1.34 0.61	4 560 20 300	3 440 15 300
40	CBF40SS	1 1/4 31.8	9/16 14.3	6 11/16 169.9	2 9/16 65.1	4 1/4 108.0	1 3/8 34.9	2 1/4 57.2	13/32 10.4	17/32 13.5	2 1/64 51.4	1/2	1.90 0.86	5 550 24 700	4 270 19 000

MRC Marathon Series Composite Mounted Bearing Units are greased and sealed for life. MRC does not recommend regreasing. If required, units with lubrication fittings are available for your application. Adding a "G" suffix to the part number denotes a regreasable unit.

Cast polymer housing. No steel coils.

CTN Composite Narrow Slot Take-Up Units ZMaRC-Coated Insert Bearing



For Inch Shafts $\frac{3}{4}$ – $1\frac{15}{16}$

Shaft Dia d in	Take-Up Unit Designation	A	B	C	L	D	H	G	A ₁	PIN DIA			Weight lb kg	Basic Radial Load Rating	
		in	in	in	in	in	in	in	in	in	J	N		S ₁	Dynamic C lbf N
$\frac{3}{4}$	CTN012ZM	$\frac{13}{8}$	$\frac{31}{8}$	$\frac{25}{8}$	$\frac{37}{16}$	$\frac{23}{16}$	$\frac{7}{8}$	$\frac{7}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{25}{32}$	$\frac{23}{32}$	0.70	2 860	1 470
		34.9	79.4	66.7	87.3	55.5	22.2	11.1	6.4	7.9	19.8	18.3	0.32	12 700	6 550
$\frac{15}{16}$	CTN015ZM ²⁾	$\frac{13}{8}$	$\frac{31}{8}$	$\frac{25}{8}$	$\frac{39}{16}$	$\frac{23}{16}$	$\frac{7}{8}$	$\frac{7}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{25}{32}$	$\frac{25}{32}$	0.75	3 150	1 750
		34.9	79.4	66.7	90.5	55.5	22.2	11.1	6.4	7.9	19.8	19.8	0.34	14 000	7 800
1	CTN100ZM	$\frac{13}{8}$	$\frac{31}{8}$	$\frac{25}{8}$	$\frac{39}{16}$	$\frac{23}{16}$	$\frac{7}{8}$	$\frac{7}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{25}{32}$	$\frac{25}{32}$	0.70	3 150	1 750
		34.9	79.4	66.7	90.5	55.5	22.2	11.1	6.4	7.9	19.8	19.8	0.32	14 000	7 800
$\frac{11}{8}$	CTN102ZM	$\frac{13}{8}$	$\frac{41}{8}$	$\frac{31}{2}$	$\frac{45}{16}$	$\frac{211}{16}$	1	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{25}{32}$	$\frac{7}{8}$	1.20	4 380	2 520
		34.9	104.8	88.9	109.5	68.3	25.4	12.7	6.4	7.9	19.8	22.2	0.54	19 500	11 200
$\frac{13}{16}$	CTN103ZM	$\frac{13}{8}$	$\frac{41}{8}$	$\frac{31}{2}$	$\frac{45}{16}$	$\frac{211}{16}$	1	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{25}{32}$	$\frac{7}{8}$	1.10	4 380	2 520
		34.9	104.8	88.9	109.5	68.3	25.4	12.7	6.4	7.9	19.8	22.2	0.50	19 500	11 200
$\frac{11}{4}$	CTN104ZMR	$\frac{13}{8}$	$\frac{41}{8}$	$\frac{31}{2}$	$\frac{45}{16}$	$\frac{211}{16}$	1	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{25}{32}$	$\frac{7}{8}$	1.10	4 380	2 520
		34.9	104.8	88.9	109.5	68.3	25.4	12.7	6.4	7.9	19.8	22.2	0.50	19 500	11 200
$\frac{11}{4}$	CTN104ZM	$\frac{13}{8}$	$\frac{41}{8}$	$\frac{31}{2}$	$\frac{41}{2}$	$\frac{211}{16}$	1	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{25}{32}$	1	1.60	5 730	3 440
		34.9	104.8	88.9	114.3	68.3	25.4	12.7	6.4	7.9	19.8	25.4	0.73	25 500	15 300
$\frac{17}{16}$	CTN107ZM	$\frac{13}{8}$	$\frac{41}{8}$	$\frac{31}{2}$	$\frac{41}{2}$	$\frac{211}{16}$	1	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{25}{32}$	1	1.60	5 730	3 440
		34.9	104.8	88.9	114.3	68.3	25.4	12.7	6.4	7.9	19.8	25.4	0.73	25 500	15 300
$\frac{11}{2}$	CTN108ZM	$\frac{15}{8}$	$\frac{43}{4}$	4	$\frac{53}{8}$	$\frac{31}{4}$	$\frac{15}{32}$	$\frac{21}{32}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{25}{32}$	$\frac{13}{16}$	2.30	6 900	4 270
		41.3	120.7	101.6	136.5	82.6	29.4	16.7	7.9	9.5	19.8	30	1.00	30 700	19 000
$\frac{115}{16}$	CTN115ZM	$\frac{15}{8}$	$\frac{43}{4}$	4	$\frac{51}{2}$	$\frac{31}{4}$	$\frac{15}{32}$	$\frac{21}{32}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{29}{32}$	$\frac{19}{32}$	2.55	7 890	5 220
		41.3	120.7	101.6	139.7	82.6	29.4	16.7	7.9	9.5	23.0	32.6	1.16	35 100	23 200

For Metric Shafts 20mm – 40mm

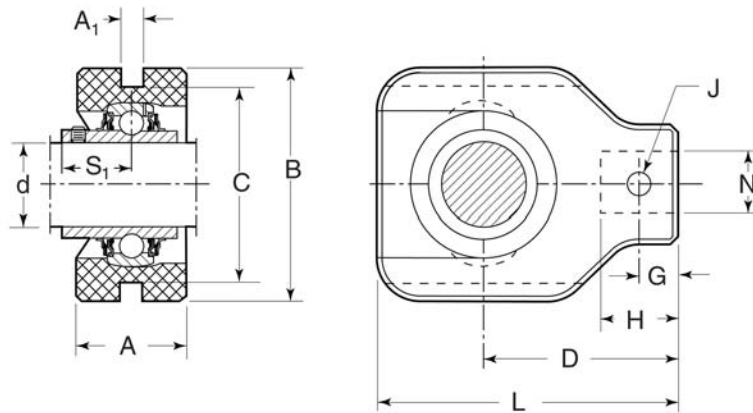
Shaft Dia d mm	Take-Up Unit Designation	A	B	C	L	D	H	G	A ₁	PIN DIA			Weight lb kg	Basic Radial Load Rating	
		in	in	in	in	in	in	in	in	in	J	N		S ₁	Dynamic C lbf N
20	CTN20ZM	$\frac{13}{8}$	$\frac{31}{8}$	$\frac{25}{8}$	$\frac{37}{16}$	$\frac{23}{16}$	$\frac{7}{8}$	$\frac{7}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{25}{32}$	$\frac{23}{32}$	0.70	2 860	1 470
		34.9	79.4	66.7	87.3	55.5	22.2	11.1	6.4	7.9	19.8	18.3	0.32	12 700	6 550
25	CTN25ZM	$\frac{13}{8}$	$\frac{31}{8}$	$\frac{25}{8}$	$\frac{39}{16}$	$\frac{23}{16}$	$\frac{7}{8}$	$\frac{7}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{25}{32}$	$\frac{25}{32}$	0.70	3 150	1 750
		34.9	79.4	66.7	90.5	55.5	22.2	11.1	6.4	7.9	19.8	19.8	0.32	14 000	7 800
30	CTN30ZM	$\frac{13}{8}$	$\frac{41}{8}$	$\frac{31}{2}$	$\frac{45}{16}$	$\frac{211}{16}$	1	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{25}{32}$	$\frac{7}{8}$	1.10	4 380	2 520
		34.9	104.8	88.9	109.5	68.3	25.4	12.7	6.4	7.9	19.8	22.2	0.50	19 500	11 200
35	CTN35ZM	$\frac{13}{8}$	$\frac{41}{8}$	$\frac{31}{2}$	$\frac{41}{2}$	$\frac{211}{16}$	1	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{25}{32}$	1	1.60	5 730	3 440
		34.9	104.8	88.9	114.3	68.3	25.4	12.7	6.4	7.9	19.8	25.4	0.73	25 500	15 300
40	CTN40ZM	$\frac{15}{8}$	$\frac{43}{4}$	4	$\frac{53}{8}$	$\frac{31}{4}$	$\frac{15}{32}$	$\frac{21}{32}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{25}{32}$	$\frac{13}{16}$	2.30	6 900	4 270
		41.3	120.7	101.6	136.5	82.6	29.4	16.7	7.9	9.5	19.8	30.0	1.00	30 700	19 000

MRC Marathon Series Composite Mounted Bearing Units are greased and sealed for life. MRC does not recommend regreasing. If required, units with lubrication fittings are available for your application. Adding a "G" suffix to the part number denotes a regreasable unit.

Cast polymer housing. No steel coils.

²⁾ Check with MRC for availability

CTN Composite
Narrow Slot Take-Up Units
 Stainless Steel Insert Bearing



For Inch Shafts ^{3/4} – 1^{1/2}

Shaft Dia d in	Take-Up Unit Designation	A in	B in	C in	L in	D in	H in	G in	A ₁ in	PIN DIA			S ₁ in	Weight lb	Basic Radial Load Rating	
										J in	N in				Dynamic C lbf	Static C ₀ lbf
^{3/4}	CTN012SS	^{13/8}	^{3/8}	^{25/8}	^{37/16}	^{23/16}	^{7/8}	^{7/16}	^{1/4}	^{5/16}	^{25/32}	^{23/32}	0.70	2 380	1 470	
		34.9	79.4	66.7	87.3	55.5	22.2	11.1	6.4	7.9	19.8	18.3	0.32	10 600	6 550	
1	CTN100SS	^{13/8}	^{3/8}	^{25/8}	^{39/16}	^{23/16}	^{7/8}	^{7/16}	^{1/4}	^{5/16}	^{25/32}	^{25/32}	0.70	2 520	1 750	
		34.9	79.4	66.7	90.5	55.5	22.2	11.1	6.4	7.9	19.8	19.8	0.32	11 200	7 800	
^{13/16}	CTN103SS	^{13/8}	^{4/8}	^{3/2}	^{45/16}	^{211/16}	1	^{1/2}	^{1/4}	^{5/16}	^{25/32}	^{7/8}	1.10	3 510	2 520	
		34.9	104.8	88.9	109.5	68.3	25.4	12.7	6.4	7.9	19.8	22.2	0.50	15 600	11 200	
^{11/4}	CTN104SSR	^{13/8}	^{4/8}	^{3/2}	^{45/16}	^{211/16}	1	^{1/2}	^{1/4}	^{5/16}	^{25/32}	1	1.40	4 560	3 440	
		34.9	104.8	88.9	109.5	68.3	25.4	12.7	6.4	7.9	19.8	25.4	0.63	20 300	15 300	
^{11/4}	CTN104SS	^{13/8}	^{4/8}	^{3/2}	^{41/2}	^{211/16}	1	^{1/2}	^{1/4}	^{5/16}	^{25/32}	^{7/8}	1.60	4 560	3 440	
		34.9	104.8	88.9	114.3	68.3	25.4	12.7	6.4	7.9	19.8	22.2	0.73	20 300	15 300	
^{13/8}	CTN106SS	^{13/8}	^{4/8}	^{3/2}	^{41/2}	^{211/16}	1	^{1/2}	^{1/4}	^{5/16}	^{25/32}	1	1.60	4 560	3 440	
		34.9	104.8	88.9	114.3	68.3	25.4	12.7	6.4	7.9	19.8	25.4	0.73	20 300	15 300	
^{17/16}	CTN107SS	^{13/8}	^{4/8}	^{3/2}	^{41/2}	^{211/16}	1	^{1/2}	^{1/4}	^{5/16}	^{25/32}	1	1.60	4 560	3 440	
		34.9	104.8	88.9	114.3	68.3	25.4	12.7	6.4	7.9	19.8	25.4	0.73	20 300	15 300	
^{11/2}	CTN108SS	^{15/8}	^{43/4}	4	^{53/8}	^{31/4}	^{15/32}	^{21/32}	^{5/16}	^{3/8}	^{25/32}	^{13/16}	2.30	5 550	4 270	
		41.3	120.7	101.6	136.5	82.6	29.4	16.7	7.9	9.5	19.8	30.0	1.00	24 700	19 000	

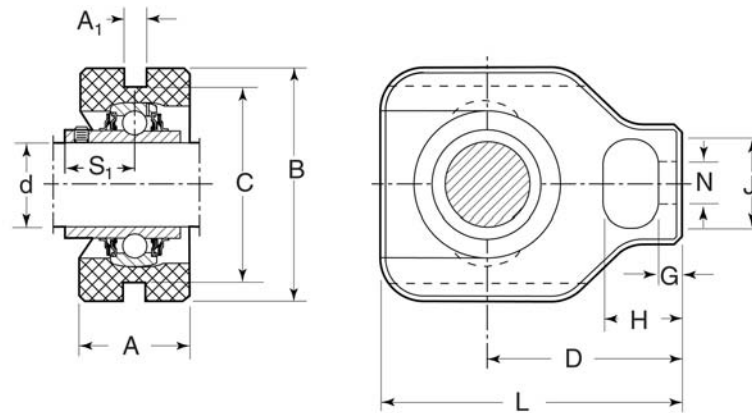
For Metric Shafts 20mm – 40mm

Shaft Dia d mm	Take-Up Unit Designation	A in	B in	C in	L in	D in	H in	G in	A ₁ in	PIN DIA			S ₁ in	Weight lb	Basic Radial Load Rating	
										J in	N in				Dynamic C lbf	Static C ₀ lbf
20	CTN20SS	^{13/8}	^{3/8}	^{25/8}	^{37/16}	^{23/16}	^{7/8}	^{7/16}	^{1/4}	^{5/16}	^{25/32}	^{23/32}	0.70	2 380	1 470	
		34.9	79.4	66.7	87.3	55.5	22.2	11.1	6.4	7.9	19.8	18.3	0.32	10 600	6 550	
25	CTN25SS	^{13/8}	^{3/8}	^{25/8}	^{39/16}	^{23/16}	^{7/8}	^{7/16}	^{1/4}	^{5/16}	^{25/32}	^{25/32}	0.70	2 520	1 750	
		34.9	79.4	66.7	90.5	55.5	22.2	11.1	6.4	7.9	19.8	19.8	0.32	11 200	7 800	
30	CTN30SS	^{13/8}	^{4/8}	^{3/2}	^{45/16}	^{211/16}	1	^{1/2}	^{1/4}	^{5/16}	^{25/32}	^{7/8}	1.10	3 510	2 520	
		34.9	104.8	88.9	109.5	68.3	25.4	12.7	6.4	7.9	19.8	22.2	0.50	15 600	11 200	
35	CTN35SS	^{13/8}	^{4/8}	^{3/2}	^{41/2}	^{211/16}	1	^{1/2}	^{1/4}	^{5/16}	^{25/32}	1	1.60	4 560	3 440	
		34.9	104.8	88.9	114.3	68.3	25.4	12.7	6.4	7.9	19.8	25.4	0.73	20 300	15 300	
40	CTN40SS	^{15/8}	^{43/4}	4	^{53/8}	^{31/4}	^{15/32}	^{21/32}	^{5/16}	^{3/8}	^{25/32}	^{13/16}	2.30	5 550	4 270	
		41.3	120.7	101.6	136.5	82.6	29.4	16.7	7.9	9.5	19.8	30.0	1.00	24 700	19 000	

MRC Marathon Series Composite Mounted Bearing Units are greased and sealed for life. MRC does not recommend regreasing. If required, units with lubrication fittings are available for your application. Adding a "G" suffix to the part number denotes a regreasable unit.

Cast polymer housing. No steel coils.

**CTW Composite
Wide Slot Take-Up Units
ZMaRC-Coated Insert Bearing**



For Inch Shafts $\frac{3}{4}$ – $1\frac{15}{16}$

Shaft Dia d in	Take-Up Unit Designation	A in	B in	C in	L in	D in	H in	G in	A ₁ in	J in	N in	S ₁ in	Weight lb	Basic Radial Load Rating	
														Dynamic C lbf	Static C ₀ lbf
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	N	N
$\frac{3}{4}$	CTW012ZM	$\frac{13}{8}$ 34.9	$\frac{35}{8}$ 92.1	3 76.2	$\frac{311}{16}$ 93.7	$\frac{23}{8}$ 60.3	$\frac{11}{16}$ 27.0	$\frac{7}{16}$ 11.1	$\frac{1732}{16}$ 13.5	$\frac{17}{16}$ 36.5	$\frac{2132}{16}$ 16.7	$\frac{2332}{16}$ 18.3	0.81 0.37	2 860 12 700	1 470 6 500
$\frac{15}{16}$	CTW015ZM ²⁾	$\frac{13}{8}$ 34.9	$\frac{35}{8}$ 92.1	3 76.2	$\frac{313}{16}$ 96.8	$\frac{27}{16}$ 61.9	$\frac{11}{16}$ 27.0	$\frac{7}{16}$ 11.1	$\frac{1732}{16}$ 13.5	$\frac{17}{16}$ 36.5	$\frac{2132}{16}$ 16.7	$\frac{2532}{16}$ 19.8	0.92 0.41	3 150 14 000	1 750 7 800
1	CTW100ZM	$\frac{13}{8}$ 34.9	$\frac{35}{8}$ 92.1	3 76.2	$\frac{313}{16}$ 96.8	$\frac{27}{16}$ 61.9	$\frac{11}{16}$ 27.0	$\frac{7}{16}$ 11.1	$\frac{1732}{16}$ 13.5	$\frac{17}{16}$ 36.5	$\frac{2132}{16}$ 16.7	$\frac{2532}{16}$ 19.8	0.87 0.39	3 150 14 000	1 750 7 800
$\frac{11}{8}$	CTW102ZM	$\frac{15}{8}$ 41.3	$\frac{41}{8}$ 104.8	$\frac{31}{2}$ 88.9	$\frac{43}{8}$ 111.1	$\frac{23}{4}$ 69.9	$\frac{1532}{16}$ 29.4	$\frac{3}{8}$ 9.5	$\frac{1732}{16}$ 13.5	$\frac{15}{8}$ 41.3	$\frac{2532}{16}$ 19.8	$\frac{7}{8}$ 22.2	1.10 0.50	4 380 19 500	2 520 11 200
$\frac{13}{16}$	CTW103ZM	$\frac{15}{8}$ 41.3	$\frac{41}{8}$ 104.8	$\frac{31}{2}$ 88.9	$\frac{43}{8}$ 111.1	$\frac{23}{4}$ 69.9	$\frac{1532}{16}$ 29.4	$\frac{3}{8}$ 9.5	$\frac{1732}{16}$ 13.5	$\frac{15}{8}$ 41.3	$\frac{2532}{16}$ 19.8	$\frac{7}{8}$ 22.2	1.40 0.64	4 380 19 500	2 520 11 200
$\frac{11}{4}$	CTW104ZMR	$\frac{15}{8}$ 41.3	$\frac{41}{8}$ 104.8	$\frac{31}{2}$ 88.9	$\frac{43}{8}$ 111.1	$\frac{23}{4}$ 69.9	$\frac{1532}{16}$ 29.4	$\frac{3}{8}$ 9.5	$\frac{1732}{16}$ 13.5	$\frac{15}{8}$ 41.3	$\frac{2532}{16}$ 19.8	1 25.4	1.40 0.64	4 380 19 500	2 520 11 200
$\frac{11}{4}$	CTW104ZM	$\frac{15}{8}$ 41.3	$\frac{41}{8}$ 104.8	$\frac{31}{2}$ 88.9	$\frac{413}{16}$ 122.2	3 76.2	$\frac{1532}{16}$ 29.4	$\frac{3}{8}$ 9.5	$\frac{1732}{16}$ 13.5	$\frac{15}{8}$ 41.3	$\frac{2532}{16}$ 19.8	1 25.4	1.70 0.77	5 730 25 500	3 440 15 300
$\frac{17}{16}$	CTW107ZM	$\frac{15}{8}$ 41.3	$\frac{41}{8}$ 104.8	$\frac{31}{2}$ 88.9	$\frac{413}{16}$ 122.2	3 76.2	$\frac{1532}{16}$ 29.4	$\frac{3}{8}$ 9.5	$\frac{1732}{16}$ 13.5	$\frac{15}{8}$ 41.3	$\frac{2532}{16}$ 19.8	1 25.4	1.50 0.68	5 730 25 500	3 440 15 300
$\frac{11}{2}$	CTW108ZM	$\frac{115}{16}$ 49.2	$\frac{41}{2}$ 114.3	4 101.6	$\frac{51}{2}$ 139.7	$\frac{37}{16}$ 87.3	$\frac{11}{2}$ 38.1	$\frac{9}{16}$ 14.3	$\frac{1116}{16}$ 17.5	$\frac{115}{16}$ 49.2	$\frac{1116}{16}$ 27.0	$\frac{1316}{16}$ 30.0	2.40 1.10	6 900 30 700	4 270 19 000
$\frac{115}{16}$	CTW115ZM	$\frac{115}{16}$ 49.2	$\frac{43}{4}$ 120.7	4 101.6	$\frac{513}{16}$ 147.6	$\frac{39}{16}$ 90.5	$\frac{11}{2}$ 38.1	$\frac{9}{16}$ 14.3	$\frac{1116}{16}$ 17.5	$\frac{115}{16}$ 49.2	$\frac{1116}{16}$ 27.0	$\frac{1932}{16}$ 32.6	2.65 2.21	7 890 35 100	5 220 23 200

For Metric Shafts 20mm – 40mm

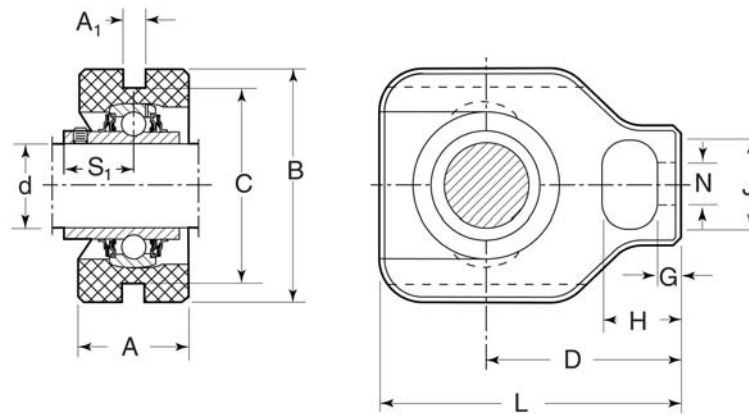
Shaft Dia d mm	Take-Up Unit Designation	A in	B in	C in	L in	D in	H in	G in	A ₁ in	J in	N in	S ₁ in	Weight lb	Basic Radial Load Rating	
														Dynamic C lbf	Static C ₀ lbf
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	N	N
20	CTW20ZM	$\frac{13}{8}$ 34.9	$\frac{35}{8}$ 92.1	3 76.2	$\frac{311}{16}$ 93.7	$\frac{23}{8}$ 60.3	$\frac{11}{16}$ 27.0	$\frac{7}{16}$ 11.1	$\frac{1732}{16}$ 13.5	$\frac{17}{16}$ 36.5	$\frac{2132}{16}$ 16.7	$\frac{2332}{16}$ 18.3	0.81 0.37	2 860 12 700	1 470 6 500
25	CTW25ZM	$\frac{13}{8}$ 34.9	$\frac{35}{8}$ 92.1	3 76.2	$\frac{313}{16}$ 96.8	$\frac{27}{16}$ 61.9	$\frac{11}{16}$ 27.0	$\frac{7}{16}$ 11.1	$\frac{1732}{16}$ 13.5	$\frac{17}{16}$ 36.5	$\frac{2132}{16}$ 16.7	$\frac{2532}{16}$ 19.8	0.87 0.39	3 150 14 000	1 750 7 800
30	CTW30ZM	$\frac{15}{8}$ 41.3	$\frac{41}{8}$ 104.8	$\frac{31}{2}$ 88.9	$\frac{43}{8}$ 111.1	$\frac{23}{4}$ 69.9	$\frac{1532}{16}$ 29.4	$\frac{3}{8}$ 9.5	$\frac{1732}{16}$ 13.5	$\frac{15}{8}$ 41.3	$\frac{2532}{16}$ 19.8	$\frac{7}{8}$ 22.2	1.40 0.64	4 380 19 500	2 520 11 200
35	CTW35ZM	$\frac{15}{8}$ 41.3	$\frac{41}{8}$ 104.8	$\frac{31}{2}$ 88.9	$\frac{413}{16}$ 122.2	3 76.2	$\frac{1532}{16}$ 29.4	$\frac{3}{8}$ 9.5	$\frac{1732}{16}$ 13.5	$\frac{15}{8}$ 41.3	$\frac{2532}{16}$ 19.8	1 25.4	1.50 0.68	5 730 25 500	3 440 15 300
40	CTW40ZM	$\frac{115}{16}$ 49.2	$\frac{41}{2}$ 114.3	4 101.6	$\frac{51}{2}$ 139.7	$\frac{37}{16}$ 87.3	$\frac{11}{2}$ 38.1	$\frac{9}{16}$ 14.3	$\frac{1116}{16}$ 17.5	$\frac{115}{16}$ 49.2	$\frac{1116}{16}$ 27.0	$\frac{1316}{16}$ 30.0	2.40 1.10	6 900 30 700	4 270 19 000

MRC Marathon Series Composite Mounted Bearing Units are greased and sealed for life. MRC does not recommend regreasing. If required, units with relubrication fittings are available for your application. Adding a "G" suffix to the part number denotes a regreasable unit.

Cast polymer housing. No steel coils.

²⁾ Check with MRC for availability

CTW Composite
Wide Slot Take-Up Units
 Stainless Steel Insert Bearing



For Inch Shafts ^{3/4} – 1^{1/2}

Shaft Dia d in	Take-Up Unit Designation	A	B	C	L	D	H	G	A ₁	J	N	S ₁	Weight	Basic Radial Load Rating	
														Dynamic C	Static C ₀
		in	in	in	in	in	in	in	in	in	in	in	lb	lbf	lbf
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	N	N
^{3/4}	CTW012SS	1 ^{3/8} 34.9	3 ^{5/8} 92.1	3 76.2	3 ^{11/16} 93.7	2 ^{3/8} 60.3	1 ^{1/16} 27.0	7/16 11.1	17/32 13.5	17/16 36.5	21/32 16.7	23/32 18.3	0.81 0.37	2 380 10 600	1 470 6 500
1	CTW100SS	1 ^{3/8} 34.9	3 ^{5/8} 92.1	3 76.2	3 ^{13/16} 96.8	2 ^{7/16} 61.9	1 ^{1/16} 27.0	7/16 11.1	17/32 13.5	17/16 36.5	21/32 16.7	25/32 19.8	0.87 0.39	2 520 11 200	1 750 7 800
^{13/16}	CTW103SS	1 ^{5/8} 41.3	4 ^{1/8} 104.8	3 ^{1/2} 88.9	4 ^{3/8} 111.1	2 ^{3/4} 69.9	1 ^{5/32} 29.4	3/8 9.5	17/32 13.5	1 ^{5/8} 41.3	25/32 19.8	7/8 22.2	1.40 0.64	3 510 15 600	2 250 11 200
1 ^{1/4}	CTW104SSR	1 ^{5/8} 41.3	4 ^{1/8} 104.8	3 ^{1/2} 88.9	4 ^{3/8} 111.1	2 ^{3/4} 69.9	1 ^{5/32} 29.4	3/8 9.5	17/32 13.5	1 ^{5/8} 41.3	25/32 19.8	1 25.4	1.70 0.77	4 560 20 300	3 440 15 300
1 ^{1/4}	CTW104SS	1 ^{5/8} 41.3	4 ^{1/8} 104.8	3 ^{1/2} 88.9	4 ^{13/16} 122.2	3 76.2	1 ^{5/32} 29.4	3/8 9.5	17/32 13.5	1 ^{5/8} 41.3	25/32 19.8	1 25.4	1.70 0.77	4 560 20 300	3 440 15 300
^{13/8}	CTW106SS	1 ^{5/8} 41.3	4 ^{1/8} 104.8	3 ^{1/2} 88.9	4 ^{13/16} 122.2	3 76.2	1 ^{5/32} 29.4	3/8 9.5	17/32 13.5	1 ^{5/8} 41.3	25/32 19.8	1 25.4	1.60 0.73	4 560 20 300	3 440 15 300
^{17/16}	CTW107SS	1 ^{5/8} 41.3	4 ^{1/8} 104.8	3 ^{1/2} 88.9	4 ^{13/16} 122.2	3 76.2	1 ^{5/32} 29.4	3/8 9.5	17/32 13.5	1 ^{5/8} 41.3	25/32 19.8	1 25.4	1.50 0.68	4 560 20 300	3 440 15 300
1 ^{1/2}	CTW108SS	1 ^{15/16} 49.2	4 ^{1/2} 114.3	4 101.6	5 ^{1/2} 139.7	3 ^{7/16} 87.3	1 ^{1/2} 38.1	9/16 14.3	11/16 17.5	1 ^{15/16} 49.2	1 ^{1/16} 27.0	1 ^{3/16} 30.0	2.40 1.10	5 550 24 700	4 270 19 000

For Metric Shafts 20mm – 40mm

Shaft Dia d mm	Take-Up Unit Designation	A	B	C	L	D	H	G	A ₁	J	N	S ₁	Weight	Basic Radial Load Rating	
														Dynamic C	Static C ₀
		in	in	in	in	in	in	in	in	in	in	in	lb	lbf	lbf
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	N	N
20	CTW20SS	1 ^{3/8} 34.9	3 ^{5/8} 92.1	3 76.2	3 ^{11/16} 93.7	2 ^{3/8} 60.3	1 ^{1/16} 27.0	7/16 11.1	17/32 13.5	17/16 36.5	21/32 16.7	23/32 18.3	0.81 0.37	2 380 10 600	1 470 6 500
25	CTW25SS	1 ^{3/8} 34.9	3 ^{5/8} 92.1	3 76.2	3 ^{13/16} 96.8	2 ^{7/16} 61.9	1 ^{1/16} 27.0	7/16 11.1	17/32 13.5	17/16 36.5	21/32 16.7	25/32 19.8	0.87 0.39	2 520 11 200	1 750 7 800
30	CTW30SS	1 ^{5/8} 41.3	4 ^{1/8} 104.8	3 ^{1/2} 88.9	4 ^{3/8} 111.1	2 ^{3/4} 69.9	1 ^{5/32} 29.4	3/8 9.5	17/32 13.5	1 ^{5/8} 41.3	25/32 19.8	7/8 22.2	1.40 0.64	3 510 15 600	2 250 11 200
35	CTW35SS	1 ^{5/8} 41.3	4 ^{1/8} 104.8	3 ^{1/2} 88.9	4 ^{13/16} 122.2	3 76.2	1 ^{5/32} 29.4	3/8 9.5	17/32 13.5	1 ^{5/8} 41.3	25/32 19.8	1 25.4	1.50 0.68	4 560 20 300	3 440 15 300
40	CTW40SS	1 ^{15/16} 49.2	4 ^{1/2} 114.3	4 101.6	5 ^{1/2} 139.7	3 ^{7/16} 87.3	1 ^{1/2} 38.1	9/16 14.3	11/16 17.5	1 ^{15/16} 49.2	1 ^{1/16} 27.0	1 ^{3/16} 30.0	2.40 1.10	5 550 24 700	4 270 19 000

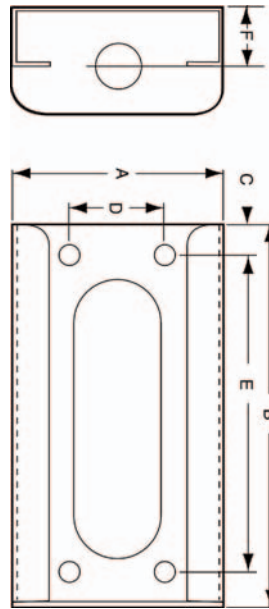
MRC Marathon Series Composite Mounted Bearing Units are greased and sealed for life. MRC does not recommend regreasing. If required, units with relubrication fittings are available for your application. Adding a "G" suffix to the part number denotes a regreasable unit.

Cast polymer housing. No steel coils.

MRC take-up frames are constructed of 304 stainless steel and can be equipped with Marathon Series Composite Mounted Bearing Units. They are designed for conveyor systems used in meat, poultry, fruit, vegetable, beverage and other food industry operations.

Normally employed at the idler end of conveyor systems, take-up frames support conveyor shafts and act to produce the correct conveyor belt tension. Unlike many take-up frames fabricated on site from non-stainless materials, MRC stainless take-up frames feature sturdy single-piece construction and resist corrosion from frequent washdowns and harsh food industry chemicals.

MRC take-up frames mount securely to conveyor systems via four mounting bolts. The frames and take-up bearing units may be adapted to fit most existing conveyor configurations.



Narrow Slot Take-up Frame

Narrow Slot Stainless Steel Take-up Frames (all dimensions are in inches)

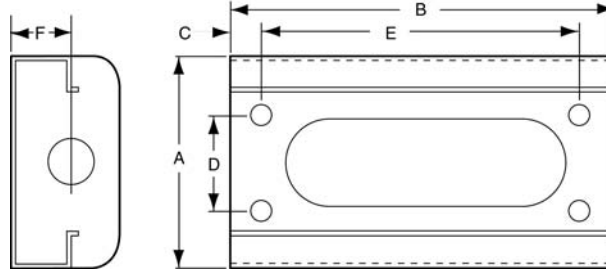
Part number	Frame size		Bolt pattern for 3/8" bolts			Shaft C/L distance	Frame accepts these shaft sizes:	
	Travel	A	B	C	D	E	F	Bearing bore
TFN210SS 3	3		8			6 ^{1/2}		
TFN210SS 6	6	3 ^{3/4}	11	0.55	1 ^{3/4}	9	1 ^{25/64}	3/4", 20mm, 1", 25mm
TFN210SS 9	9		15			12 ^{1/2}		
TFN308SS 3	3		9			7 ^{1/2}		
TFN308SS 6	6	4 ^{41/64}	12	0.55	2 ^{3/4}	10 ^{1/2}	1 ^{27/32}	1 ^{3/16"} , 30mm, 1 ^{1/4"} ,
TFN308SS 9	9		15			12 ^{1/2}		1 ^{3/8"} , 35mm, 1 ^{7/16"}
TFN308SS 12	12		18			16 ^{1/2}		
TFN400SS 3	3		10			8 ^{1/2}		
TFN400SS 6	6		13			11 ^{1/2}		
TFN400SS 9	9	5 ^{1/4}	16	0.55	2 ^{3/4}	14 ^{1/2}	1 ^{63/64}	1 ^{1/2"} , 40mm, 1 ^{15/16"}
TFN400SS 12	12		19			17 ^{1/2}		
TFN400SS 18	18		25			23 ^{1/2}		

HACCP-Program Compatible

MRC stainless take-up frames help support the stringent sanitation requirements of Hazard Analysis Critical Control Point (HACCP) programs. In addition to being corrosion-resistant, the frames have no narrow gaps or crevices that can trap food contaminants. Also, openings in the side and bottom of MRC frames facilitate quick draining during washdowns.

Marathon Series Bearing Units

Marathon Series bearing units are available separately and may be mounted in MRC take-up frames. These units feature a lightweight thermoplastic housing that resists corrosion from water, citric acid, cleaning agents and most other food industry chemicals. The unit's double-protection sealing arrangement, consisting of an AISI 304 stainless steel insert seal and an AISI 304 stainless steel flinger, protects against both wet and dry contaminants. The units are lubricated for life with a USDA food-grade grease. Marathon units are available with either a corrosion-resistant ZMaRC- coated insert bearing or a stainless steel bearing.

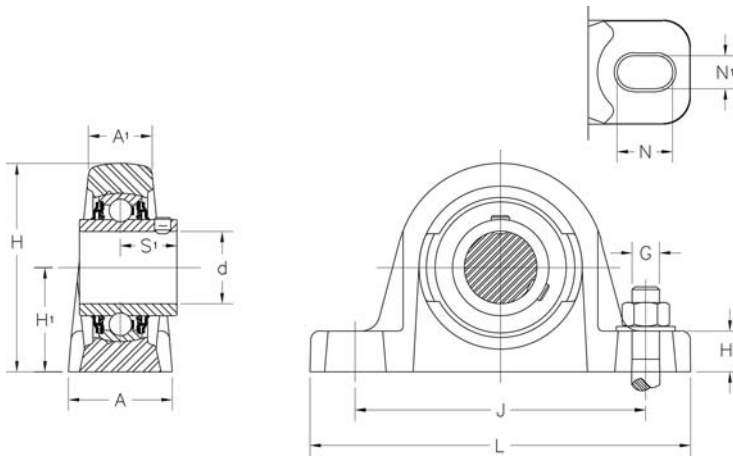


Wide Slot Take-up Frame

Wide Slot Stainless Steel Take-up Frames (all dimensions are in inches)

Part number	Travel	Frame size		Bolt pattern for 3/8" bolts			Shaft C/L distance F	Frame accepts these shaft sizes: Bearing bore
		A	B	C	D	E		
TFW300SS 3	3		8			6½		
TFW300SS 6	6	4 ^{1/8}	11	0.55	2 ^{1/4}	9½	1 ^{25/64}	3/4", 20mm, 1", 25mm
TFW300SS 9	9		14			12½		
TFW300SS 12	12		17			15½		
TFW308SS 3	3		9			7½		
TFW308SS 6	6		12			10½		
TFW308SS 9	9	4 ^{41/64}	15	0.55	2 ^{3/4}	12½	1 ^{27/32}	1 ^{3/16} ", 30mm, 1 ^{1/4} ",
TFW308SS 12	12		18			16½		1 ^{3/8} ", 35mm, 1 ^{7/16} "
TFW308SS 18	18		24			22½		
TFW400SS 3	3		10			8½		
TFW400SS 6	6		13			11½		
TFW400SS 9	9	5 ^{1/4}	16	0.55	2 ^{3/4}	14½	1 ^{63/64}	1 ^{1/2} ", 40mm, 1 ^{15/16} "
TFW400SS 12	12		19			17½		
TFW400SS 18	18		25			23½		

**ZPB ZMaRC Coated
Cast Iron Pillow Block Units
ZMaRC-Coated Insert Bearing
HD_i Series**



For Inch Shafts ^{3/4} – ¹/₁₆

Shaft Dia d in	Pillow Block Designation	A in mm	A ₁ in mm	H in mm	H ₁ in mm	H ₂ in mm	J		L in mm	N in mm	N ₁ in mm	G in mm	S ₁ in mm	Weight lb kg	Basic Radial Load Rating	
							Min in mm	Max in mm							Dynamic C lbf N	Static C ₀ lbf N
³ / ₄	ZPB012ZM	¹ / ₄	⁵³ / ₆₄	² / ₂	¹⁵ / ₁₆	³⁵ / ₆₄	³¹⁵ / ₃₂	⁴¹¹ / ₆₄	5	¹³ / ₁₆	²⁹ / ₆₄	³ / ₈	²³ / ₃₂	1.40	2 860	1 470
		32.0	21.0	64.0	33.3	14.0	88.0	106.0	127.0	20.5	11.5	10.0	18.3	0.64	12 700	6 550
¹⁵ / ₁₆	ZPB015ZM	¹⁷ / ₁₆	⁷ / ₈	²³ / ₄	¹⁷ / ₁₆	⁵ / ₈	³⁴⁵ / ₆₄	⁴²¹ / ₆₄	⁵ / ₈	⁴⁹ / ₆₄	²⁹ / ₆₄	³ / ₈	²⁵ / ₃₂	1.75	3 150	1 750
		36.0	22.0	70.0	36.5	16.0	94.0	110.0	130.0	19.5	11.5	10.0	19.8	0.79	14 000	7 800
1	ZPB100ZM	¹⁷ / ₁₆	⁷ / ₈	²³ / ₄	¹⁷ / ₁₆	⁵ / ₈	³⁴⁵ / ₆₄	⁴²¹ / ₆₄	⁵ / ₈	⁴⁹ / ₆₄	²⁹ / ₆₄	³ / ₈	²⁵ / ₃₂	1.70	3 150	1 750
		36.0	22.0	70.0	36.5	16.0	94.0	110.0	130.0	19.5	11.5	10.0	19.8	0.77	14 000	7 800
¹¹ / ₈	ZPB102ZM	¹³⁷ / ₆₄	1	³¹⁵ / ₆₄	¹¹¹ / ₁₆	²¹ / ₃₂	⁴ / ₄	5	⁵⁶³ / ₆₄	⁵⁹ / ₆₄	³⁵ / ₆₄	¹ / ₂	⁷ / ₈	2.85	4 380	2 520
		40.0	25.4	82.0	42.9	16.5	108.0	127.0	152.0	23.5	14.0	12.7	22.2	1.30	19 500	11 200
¹³ / ₁₆	ZPB103ZM	¹³⁷ / ₆₄	1	³¹⁵ / ₆₄	¹¹¹ / ₁₆	²¹ / ₃₂	⁴ / ₄	5	⁵⁶³ / ₆₄	⁵⁹ / ₆₄	³⁵ / ₆₄	¹ / ₂	⁷ / ₈	2.85	4 380	2 520
		40.0	25.4	82.0	42.9	16.5	108.0	127.0	152.0	23.5	14.0	12.7	22.2	1.30	19 500	11 200
¹¹ / ₄	ZPB104ZMR	¹³⁷ / ₆₄	1	³¹⁵ / ₆₄	¹¹¹ / ₁₆	²¹ / ₃₂	⁴ / ₄	5	⁵⁶³ / ₆₄	⁵⁹ / ₆₄	³⁵ / ₆₄	¹ / ₂	⁷ / ₈	2.75	4 380	2 520
		40.0	25.4	82.0	42.9	16.5	108.0	127.0	152.0	23.5	14.0	12.7	22.2	1.25	19 500	11 200
¹¹ / ₄	ZPB104ZM	¹⁴⁹ / ₆₄	¹¹ / ₈	³²¹ / ₃₂	¹⁷ / ₈	³ / ₄	⁴⁴³ / ₆₄	⁵¹⁵ / ₆₄	⁶¹⁹ / ₆₄	⁵³ / ₆₄	³⁵ / ₆₄	¹ / ₂	1	3.65	5 730	3 440
		45.0	28.0	93.0	47.6	19.0	119.0	133.0	160.0	21.0	14.0	12.7	25.4	1.65	25 500	15 300
¹⁷ / ₁₆	ZPB107ZM	¹⁴⁹ / ₆₄	¹¹ / ₈	³²¹ / ₃₂	¹⁷ / ₈	³ / ₄	⁴⁴³ / ₆₄	⁵¹⁵ / ₆₄	⁶¹⁹ / ₆₄	⁵³ / ₆₄	³⁵ / ₆₄	¹ / ₂	1	3.40	5 730	3 440
		45.0	28.0	93.0	47.6	19.0	119.0	133.0	160.0	21.0	14.0	12.7	25.4	1.55	25 500	15 300
¹¹ / ₂	ZPB108ZM	¹⁵⁷ / ₆₄	¹⁷ / ₃₂	³²⁹ / ₃₂	¹¹⁵ / ₁₆	³ / ₄	⁴⁵⁹ / ₆₄	⁵³ / ₄	⁶⁵⁷ / ₆₄	¹⁵ / ₁₆	³⁵ / ₆₄	¹ / ₂	¹³ / ₁₆	4.30	6 900	4 270
		48.0	31.0	99.0	49.2	19.0	125.0	146.0	175.0	24.0	14.0	12.7	30.0	1.95	30 700	19 000
¹¹⁵ / ₁₆	ZPB115ZM	² / ₈	¹³ / ₈	⁴ / ₂	² / ₄	⁷ / ₈	⁵⁵⁵ / ₆₄	⁶ / ₂	8	¹¹ / ₁₆	⁴⁵ / ₆₄	⁵ / ₈	¹⁹ / ₃₂	6.30	7 890	5 220
		54.0	35.0	114.0	57.2	22.0	149.0	165.0	203.0	27.0	18.0	16.0	32.6	2.85	35 100	23 200

For Metric Shafts 20mm – 40mm*

Shaft Dia d mm	Pillow Block Designation	A in mm	A ₁ in mm	H in mm	H ₁ in mm	H ₂ in mm	J		L in mm	N in mm	N ₁ in mm	G in mm	S ₁ in mm	Weight lb kg	Basic Radial Load Rating	
							Min in mm	Max in mm							Dynamic C lbf N	Static C ₀ lbf N
20	ZPB20ZM	¹ / ₄	⁵³ / ₆₄	² / ₂	¹⁵ / ₁₆	³⁵ / ₆₄	³¹⁵ / ₃₂	⁴¹¹ / ₆₄	5	¹³ / ₁₆	²⁹ / ₆₄	³ / ₈	²³ / ₃₂	1.40	2 860	1 470
		32.0	21.0	64.0	33.3	14.0	88.0	106.0	127.0	20.5	11.5	10.0	18.3	0.64	12 700	6 550
25	ZPB25ZM	¹⁷ / ₁₆	⁷ / ₈	²³ / ₄	¹⁷ / ₁₆	⁵ / ₈	³⁴⁵ / ₆₄	⁴²¹ / ₆₄	⁵ / ₈	⁴⁹ / ₆₄	²⁹ / ₆₄	³ / ₈	²⁵ / ₃₂	1.70	3 150	1 750
		36.0	22.0	70.0	36.5	16.0	94.0	110.0	130.0	19.5	11.5	10.0	19.8	0.77	14 000	7 800
30	ZPB30ZM	¹³⁷ / ₆₄	1	³¹⁵ / ₆₄	¹¹¹ / ₁₆	²¹ / ₃₂	⁴ / ₄	5	⁵⁶³ / ₆₄	⁵⁹ / ₆₄	³⁵ / ₆₄	¹ / ₂	⁷ / ₈	2.85	4 380	2 520
		40.0	25.4	82.0	42.9	16.5	108.0	127.0	152.0	23.5	14.0	12.7	22.2	1.30	19 500	11 200
35	ZPB35ZM	¹⁴⁹ / ₆₄	¹¹ / ₈	³²¹ / ₃₂	¹⁷ / ₈	³ / ₄	⁴⁴³ / ₆₄	⁵¹⁵ / ₆₄	⁶¹⁹ / ₆₄	⁵³ / ₆₄	³⁵ / ₆₄	¹ / ₂	1	3.65	5 730	3 440
		45.0	28.0	93.0	47.6	19.0	119.0	133.0	160.0	21.0	14.0	12.7	25.4	1.65	25 500	15 300
40	ZPB40ZM	¹⁵⁷ / ₆₄	¹⁷ / ₃₂	³²⁹ / ₃₂	¹¹⁵ / ₁₆	³ / ₄	⁴⁵⁹ / ₆₄	⁵³ / ₄	⁶⁵⁷ / ₆₄	¹⁵ / ₁₆	³⁵ / ₆₄	¹ / ₂	¹³ / ₁₆	4.30	6 900	4 270
		48.0	31.0	99.0	49.2	19.0	125.0	146.0	175.0	24.0	14.0	12.7	30.0	1.95	30 700	19 000

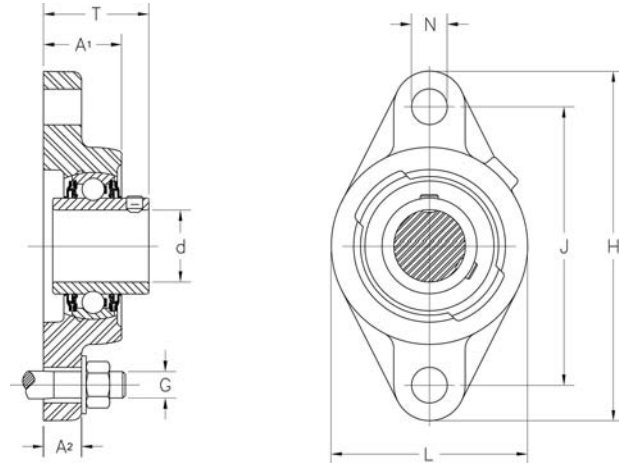
* Metric units are supplied through the Made To Order (MTO) Program

MRC Marathon Series Mounted Bearing Units are greased and sealed for life. MRC does not recommend regreasing. If required, units with relubrication fittings are available for your application. Adding a "G" suffix to the part number denotes a regreaseable unit.

Z2F ZMaRC Coated Cast Iron Two-Bolt Flange Units

ZMaRC-Coated Insert Bearing

HD_i Series



For Inch Shafts ^{3/4} – 1^{15/16}

Shaft Dia d in	Flange Unit Designation	A ₁ in mm	A ₂ in mm	H in mm	J in mm	L in mm	N in mm	G in mm	T in mm	Weight lb kg	Basic Radial Load Rating	
											Dynamic C lbf N	Static C ₀ lbf N
^{3/4}	Z2F012ZM	^{31/32}	^{7/16}	^{413/32}	^{317/32}	^{23/8}	^{7/16}	^{3/8}	^{115/32}	0.90	2 860	1 470
		24.6	11.1	111.9	89.7	60.3	11.1	10.0	37.3	0.41	12 700	6 550
^{15/16}	Z2F015ZM	^{13/16}	^{5/8}	^{457/64}	^{357/64}	^{23/4}	^{1/2}	^{7/16}	^{117/32}	1.35	3 150	1 750
		30.2	15.9	123.8	98.8	69.9	12.7	11.0	38.8	0.61	14 000	7 800
1	Z2F100ZM	^{13/16}	^{5/8}	^{457/64}	^{357/64}	^{23/4}	^{1/2}	^{7/16}	^{117/32}	1.30	3 150	1 750
		30.2	15.9	123.8	98.8	69.9	12.7	11.0	38.8	0.59	14 000	7 800
^{11/8}	Z2F102ZM	^{19/32}	^{17/32}	^{59/16}	^{419/32}	^{31/8}	^{1/2}	^{7/16}	^{121/32}	2.05	4 380	2 520
		32.5	13.5	141.3	116.7	79.4	12.7	11.0	42.2	0.93	19 500	11 200
^{13/16}	Z2F103ZM	^{19/32}	^{17/32}	^{59/16}	^{419/32}	^{31/8}	^{1/2}	^{7/16}	^{121/32}	2.00	4 380	2 520
		32.5	13.5	141.3	116.7	79.4	12.7	11.0	42.2	0.91	19 500	11 200
^{11/4}	Z2F104ZMR	^{19/32}	^{17/32}	^{59/16}	^{419/32}	^{31/8}	^{1/2}	^{7/16}	^{121/32}	1.95	4 380	2 520
		32.5	13.5	141.3	116.7	79.4	12.7	11.0	42.2	0.88	19 500	11 200
^{11/4}	Z2F104ZM	^{111/32}	^{9/16}	^{61/8}	^{51/8}	^{35/8}	^{9/16}	^{1/2}	^{127/32}	2.85	5 730	3 440
		34.1	14.3	155.6	130.2	92.1	14.3	12.7	46.4	1.30	25 500	15 300
^{17/16}	Z2F107ZM	^{111/32}	^{9/16}	^{61/8}	^{51/8}	^{35/8}	^{9/16}	^{1/2}	^{127/32}	2.75	5 730	3 440
		34.1	14.3	155.6	130.2	92.1	14.3	12.7	46.4	1.25	25 500	15 300
^{11/2}	Z2F108ZM	^{117/32}	^{9/16}	^{63/4}	^{521/32}	4	^{9/16}	^{1/2}	^{21/8}	3.75	6 900	4 270
		38.9	14.3	171.5	143.7	101.6	14.3	12.7	54.2	1.70	30 700	19 000
^{115/16}	Z2F115ZM	^{123/32}	^{25/32}	^{77/16}	^{63/16}	^{49/16}	^{5/8}	^{9/16}	^{23/8}	5.05	7 890	5 220
		43.7	19.8	188.9	157.2	115.9	15.9	14.0	60.6	2.30	35 100	23 200

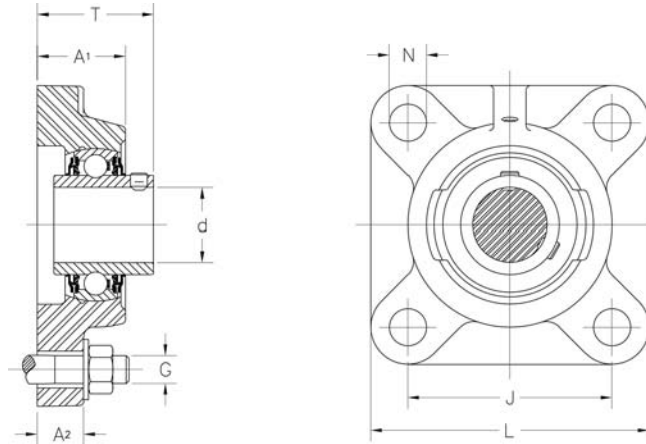
For Metric Shafts 20mm – 40mm*

Shaft Dia d mm	Flange Unit Designation	A ₁ in mm	A ₂ in mm	H in mm	J in mm	L in mm	N in mm	G in mm	T in mm	Weight lb kg	Basic Radial Load Rating	
											Dynamic C lbf N	Static C ₀ lbf N
20	Z2F20ZM	^{31/32}	^{7/16}	^{413/32}	^{317/32}	^{23/8}	^{7/16}	^{3/8}	^{115/32}	0.90	2 860	1 470
		24.6	11.1	111.9	89.7	60.3	11.1	10.0	37.3	0.41	12 700	6 550
25	Z2F25ZM	^{13/16}	^{5/8}	^{457/64}	^{357/64}	^{23/4}	^{1/2}	^{7/16}	^{117/32}	1.30	3 150	1 750
		30.2	15.9	123.8	98.8	69.9	12.7	11.0	38.8	0.59	14 000	7 800
30	Z2F30ZM	^{19/32}	^{17/32}	^{59/16}	^{419/32}	^{31/8}	^{1/2}	^{7/16}	^{121/32}	2.05	4 380	2 520
		32.5	13.5	141.3	116.7	79.4	12.7	11.0	42.2	0.93	19 500	11 200
35	Z2F35ZM	^{111/32}	^{9/16}	^{61/8}	^{51/8}	^{35/8}	^{9/16}	^{1/2}	^{127/32}	2.85	5 730	3 440
		34.1	14.3	155.6	130.2	92.1	14.3	12.7	46.4	1.30	25 500	15 300
40	Z2F40ZM	^{117/32}	^{9/16}	^{63/4}	^{521/32}	4	^{9/16}	^{1/2}	^{21/8}	3.75	6 900	4 270
		38.9	14.3	171.5	143.7	101.6	14.3	12.7	54.2	1.70	30 700	19 000

* Metric units are supplied through the Made To Order (MTO) Program

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Z4F ZMaRC Coated Cast Iron Four-Bolt Flange Units
ZMaRC-Coated Insert Bearing
HD_i Series



For Inch Shafts ³/₄ – 1¹⁵/₁₆

Shaft Dia d	Flange Unit Designation	A ₁	A ₂	J	L	N	G	T	Weight	Basic Radial Load Rating	
										Dynamic C	Static C ₀
in		in	in	in	in	in	in	in	lb	lbf	lbf
		mm	mm	mm	mm	mm	mm	mm	kg	N	N
³ / ₄	Z4F012ZM	1 ¹ / ₈	5 ¹ / ₈	2 ¹ / ₂	3 ³ / ₈	7 ¹ / ₁₆	3 ³ / ₈	1 ¹⁷ / ₃₂	1.35	2 860	1 470
		28.6	15.9	63.5	85.7	11.1	10.0	38.8	0.61	12 700	6 550
1 ⁵ / ₁₆	Z4F015ZM	1 ³ / ₁₆	5 ¹ / ₈	2 ³ / ₄	3 ³ / ₄	1 ¹ / ₂	7 ¹ / ₁₆	1 ¹⁷ / ₃₂	1.85	3 150	1 750
		30.2	15.9	69.9	95.3	12.7	11.0	38.8	0.84	14 000	7 800
1	Z4F100ZM	1 ³ / ₁₆	5 ¹ / ₈	2 ³ / ₄	3 ³ / ₄	1 ¹ / ₂	7 ¹ / ₁₆	1 ¹⁷ / ₃₂	1.80	3 150	1 750
		30.2	15.9	69.9	95.3	12.7	11.0	38.8	0.82	14 000	7 800
1 ¹ / ₈	Z4F102ZM	1 ⁹ / ₃₂	1 ⁹ / ₃₂	3 ¹ / ₄	4 ¹ / ₄	1 ¹ / ₂	7 ¹ / ₁₆	1 ²¹ / ₃₂	2.65	4 380	2 520
		32.5	15.1	82.6	108.0	12.7	11.0	42.2	1.20	19 500	11 200
1 ³ / ₁₆	Z4F103ZM	1 ⁹ / ₃₂	1 ⁹ / ₃₂	3 ¹ / ₄	4 ¹ / ₄	1 ¹ / ₂	7 ¹ / ₁₆	1 ²¹ / ₃₂	2.65	4 380	2 520
		32.5	15.1	82.6	108.0	12.7	11.0	42.2	1.20	19 500	11 200
1 ¹ / ₄	Z4F104ZMR	1 ⁹ / ₃₂	1 ⁹ / ₃₂	3 ¹ / ₄	4 ¹ / ₄	1 ¹ / ₂	7 ¹ / ₁₆	1 ²¹ / ₃₂	2.65	4 380	2 520
		32.5	15.1	82.6	108.0	12.7	11.0	42.2	1.20	19 500	11 200
1 ¹ / ₄	Z4F104ZM	1 ³ / ₈	5 ¹ / ₈	3 ⁵ / ₈	4 ⁵ / ₈	9 ¹ / ₁₆	1 ¹ / ₂	1 ²⁷ / ₃₂	3.30	5 730	3 440
		34.9	15.9	92.1	117.5	14.3	12.7	46.4	1.50	25 500	15 300
1 ⁷ / ₁₆	Z4F107ZM	1 ³ / ₈	5 ¹ / ₈	3 ⁵ / ₈	4 ⁵ / ₈	9 ¹ / ₁₆	1 ¹ / ₂	1 ²⁷ / ₃₂	3.20	5 730	3 440
		34.9	15.9	92.1	117.5	14.3	12.7	46.4	1.45	25 500	15 300
1 ¹ / ₂	Z4F108ZM	1 ¹⁷ / ₃₂	2 ¹ / ₃₂	4	5 ¹ / ₈	9 ¹ / ₁₆	1 ¹ / ₂	2 ¹ / ₈	4.30	6 900	4 270
		38.9	16.7	101.6	130.2	14.3	12.7	54.2	2.00	30 700	19 000
1 ¹⁵ / ₁₆	Z4F115ZM	1 ³ / ₄	2 ⁵ / ₃₂	4 ³ / ₈	5 ⁵ / ₈	5 ¹ / ₈	9 ¹ / ₁₆	2 ⁷ / ₃₂	5.60	7 890	5 220
		44.5	19.8	111.1	142.9	15.9	14.0	56.6	2.55	35 100	23 200

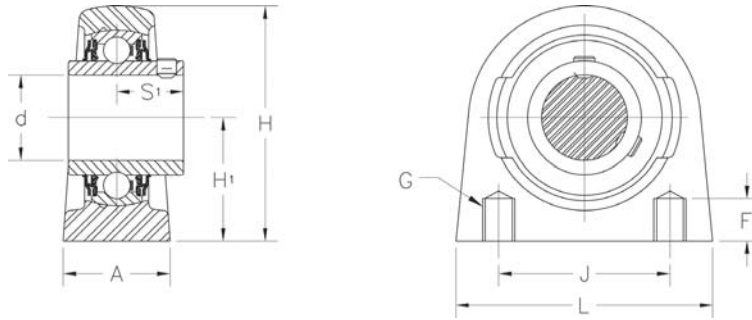
For Metric Shafts 20mm – 40mm*

Shaft Dia d	Flange Unit Designation	A ₁	A ₂	J	L	N	G	T	Weight	Basic Radial Load Rating	
										Dynamic C	Static C ₀
mm		in	in	in	in	in	in	in	lb	lbf	lbf
		mm	mm	mm	mm	mm	mm	mm	kg	N	N
20	Z4F20ZM	1 ¹ / ₈	5 ¹ / ₈	2 ¹ / ₂	3 ³ / ₈	7 ¹ / ₁₆	3 ³ / ₈	1 ¹⁷ / ₃₂	1.35	2 860	1 470
		28.6	15.9	63.5	85.7	11.1	10.0	38.8	0.61	12 700	6 550
25	Z4F25ZM	1 ³ / ₁₆	5 ¹ / ₈	2 ³ / ₄	3 ³ / ₄	1 ¹ / ₂	7 ¹ / ₁₆	1 ¹⁷ / ₃₂	1.80	3 150	1 750
		30.2	15.9	69.9	95.3	12.7	11.0	38.8	0.82	14 000	7 800
30	Z4F30ZM	1 ⁹ / ₃₂	1 ⁹ / ₃₂	3 ¹ / ₄	4 ¹ / ₄	1 ¹ / ₂	7 ¹ / ₁₆	1 ²¹ / ₃₂	2.65	4 380	2 520
		32.5	15.1	82.6	108.0	12.7	11.0	42.2	1.20	19 500	11 200
35	Z4F35ZM	1 ³ / ₈	5 ¹ / ₈	3 ⁵ / ₈	4 ⁵ / ₈	9 ¹ / ₁₆	1 ¹ / ₂	1 ²⁷ / ₃₂	3.30	5 730	3 440
		34.9	15.9	92.1	117.5	14.3	12.7	46.4	1.50	25 500	15 300
40	Z4F40ZM	1 ¹⁷ / ₃₂	2 ¹ / ₃₂	4	5 ¹ / ₈	9 ¹ / ₁₆	1 ¹ / ₂	2 ¹ / ₈	4.30	6 900	4 270
		38.9	16.7	101.6	130.2	14.3	12.7	54.2	2.00	30 700	19 000

* Metric units are supplied through the Made To Order (MTO) Program

MRC Marathon Series Mounted Bearing Units are greased and sealed for life. MRC does not recommend regreasing. If required, units with relubrication fittings are available for your application. Adding a "G" suffix to the part number denotes a regreaseable unit.

ZTB ZMaRC Coated
Cast Iron Tapped Base Units
 ZMaRC-Coated Insert Bearing
 HD_i Series



For Inch Shafts ^{3/4} – 1^{15/16}

Shaft Dia d in	Tapped-Base Unit Designation	A in mm	H in mm	H ₁ in mm	J in mm	L in mm	F in mm	G in mm	S ₁ in mm	Weight lb kg	Basic Radial Load Rating	
											Dynamic C lbf N	Static C ₀ lbf N
^{3/4}	ZTB012ZM	1 ^{1/2} 38.1	29 ^{1/16} 65.1	15 ^{1/16} 33.3	2 50.8	3 ^{1/8} 79.4	1/2 12.7	3/8-16	23 ^{3/32} 18.3	1.80 0.82	2 860 12 700	1 470 6 550
		15 ^{1/16} 38.1	213 ^{1/16} 71.4	17 ^{1/16} 36.5	2 50.8	3 76.2	1/2 12.7	3/8-16	25 ^{3/32} 19.8	2.05 0.93	3 150 14 000	1 750 7 800
1	ZTB100ZM	1 ^{1/2} 38.1	213 ^{1/16} 71.4	17 ^{1/16} 36.5	2 50.8	3 76.2	1/2 12.7	3/8-16	25 ^{3/32} 19.8	2.00 0.91	3 150 14 000	1 750 7 800
1 ^{1/8}	ZTB102ZM	1 ^{1/2} 38.1	3 ^{3/8} 85.7	1 ^{11/16} 42.9	3 76.2	4 101.6	5/8 15.9	7/16-14	7/8 22.2	3.50 1.59	4 380 19 500	2 520 11 200
1 ^{3/16}	ZTB103ZM	1 ^{1/2} 38.1	3 ^{3/8} 85.7	1 ^{11/16} 42.9	3 76.2	4 101.6	5/8 15.9	7/16-14	7/8 22.2	3.50 1.59	4 380 19 500	2 520 11 200
1 ^{1/4}	ZTB104ZMR	1 ^{1/2} 38.1	3 ^{3/8} 85.7	1 ^{11/16} 42.9	3 76.2	4 101.6	5/8 15.9	7/16-14	7/8 22.2	3.50 1.59	4 380 19 500	2 520 11 200
1 ^{1/4}	ZTB104ZM	1 ^{7/8} 47.6	3 ^{3/4} 95.3	1 ^{7/8} 47.6	3 ^{1/4} 82.6	4 ^{1/4} 108.0	3/4 19.1	1/2-13	1 25.4	4.50 2.05	5 730 25 500	3 440 15 300
1 ^{7/16}	ZTB107ZM	1 ^{7/8} 47.6	3 ^{3/4} 95.3	1 ^{7/8} 47.6	3 ^{1/4} 82.6	4 ^{1/4} 108.0	3/4 19.1	1/2-13	1 25.4	4.50 2.05	5 730 25 500	3 440 15 300
1 ^{1/2}	ZTB108ZM	1 ^{7/8} 47.6	3 ^{15/16} 100.0	1 ^{15/16} 49.2	3 ^{1/2} 88.9	4 ^{5/8} 117.5	3/4 19.1	1/2-13	13 ^{1/16} 30.0	6.00 2.73	6 900 30 700	4 270 19 000
1 ^{15/16}	ZTB115ZM	2 50.8	4 ^{5/8} 117.5	2 ^{1/4} 57.2	4 101.6	5 ^{1/2} 139.7	7/8 22.2	5/8-11	19 ^{3/32} 32.6	8.00 3.64	7 890 35 100	5 220 23 200

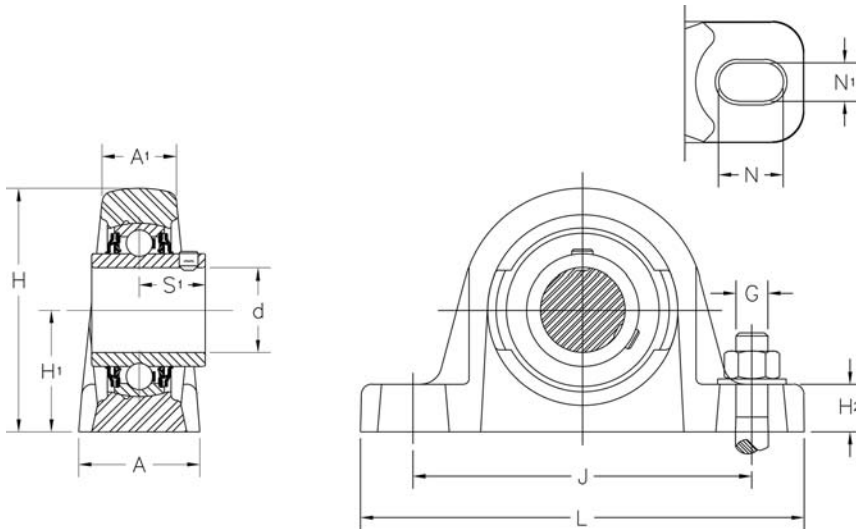
For Metric Shafts 20mm – 40mm*

Shaft Dia d mm	Tapped-Base Unit Designation	A in mm	H in mm	H ₁ in mm	J in mm	L in mm	F in mm	G in mm	S ₁ in mm	Weight lb kg	Basic Radial Load Rating	
											Dynamic C lbf N	Static C ₀ lbf N
20	ZTB20ZM	1 ^{1/2} 38.1	29 ^{1/16} 65.1	15 ^{1/16} 33.3	2 50.8	3 ^{1/8} 79.4	1/2 12.7	3/8-16	23 ^{3/32} 18.3	1.80 0.82	2 860 12 700	1 470 6 550
25	ZTB25ZM	1 ^{1/2} 38.1	213 ^{1/16} 71.4	17 ^{1/16} 36.5	2 50.8	3 76.2	1/2 12.7	3/8-16	25 ^{3/32} 19.8	2.00 0.91	3 150 14 000	1 750 7 800
30	ZTB30ZM	1 ^{1/2} 38.1	3 ^{3/8} 85.7	1 ^{11/16} 42.9	3 76.2	4 101.6	5/8 15.9	7/16-14	7/8 22.2	3.50 1.59	4 380 19 500	2 520 11 200
35	ZTB35ZM	1 ^{7/8} 47.6	3 ^{3/4} 95.3	1 ^{7/8} 47.6	3 ^{1/4} 82.6	4 ^{1/4} 108.0	3/4 19.1	1/2-13	1 25.4	4.50 2.05	5 730 25 500	3 440 15 300
40	ZTB40ZM	1 ^{7/8} 47.6	3 ^{15/16} 100.0	1 ^{15/16} 49.2	3 ^{1/2} 88.9	4 ^{5/8} 117.5	3/4 19.1	1/2-13	13 ^{1/16} 30.0	6.00 2.73	6 900 30 700	4 270 19 000

* Metric units are supplied through the Made To Order (MTO) Program

MRC Marathon Series Mounted Bearing Units are greased and sealed for life. MRC does not recommend regreasing. If required, units with relubrication fittings are available for your application. Adding a "G" suffix to the part number denotes a regreaseable unit.

**SPB Cast Stainless Steel
Pillow Block Units**
Stainless Steel Insert Bearing
XD_S Series



For Inch Shafts ³/₄ – 1¹/₂

Shaft Dia d in	Pillow Block Designation	A in mm	A ₁ in mm	H in mm	H ₁ in mm	H ₂ in mm	J		L in mm	N in mm	N ₁ in mm	G in mm	S ₁ in mm	Basic Radial Load Rating	
							Min in mm	Max in mm						Dynamic C lbf N	Static C ₀ lbf N
³ / ₄	SPB012SS	1 ¹ / ₄	³ / ₄	2 ¹ / ₂	1 ⁵ / ₁₆	3 ⁵ / ₆₄	3 ⁷ / ₁₆	4 ³ / ₁₆	5	1 ³ / ₁₆	2 ⁹ / ₆₄	3 ⁸ / ₈	2 ³ / ₃₂	2 400	1 470
		32.0	19.0	64.0	33.3	14.0	87.3	106.4	127.0	20.5	11.5	10.0	18.3	10 800	6 550
1	SPB100SS	1 ⁷ / ₁₆	7 ⁸ / ₈	2 ³ / ₄	1 ⁷ / ₁₆	5 ⁸ / ₈	3 ¹¹ / ₁₆	4 ⁵ / ₁₆	5 ¹ / ₈	3 ⁴ / ₄	2 ⁹ / ₆₄	3 ⁸ / ₈	2 ⁵ / ₃₂	2 700	1 750
		36.0	22.0	70.0	36.5	16.0	93.7	109.5	130.0	19.1	11.5	10.0	19.8	11 900	7 800
¹³ / ₁₆	SPB103SS	1 ⁹ / ₁₆	1	3 ¹⁵ / ₆₄	1 ¹¹ / ₁₆	2 ¹ / ₃₂	4 ¹ / ₄	5	6	1 ⁵ / ₁₆	9 ¹⁶ / ₁₆	1 ² / ₂	7 ⁸ / ₈	3 700	2 520
		39.7	25.4	82.0	42.9	16.5	108.0	127.0	152.4	23.8	14.3	12.7	22.2	16 300	11 200
¹¹ / ₄	SPB104SSR	1 ⁹ / ₁₆	1	3 ¹⁵ / ₆₄	1 ¹¹ / ₁₆	2 ¹ / ₃₂	4 ¹ / ₄	5	6	1 ⁵ / ₁₆	9 ¹⁶ / ₁₆	1 ² / ₂	7 ⁸ / ₈	3 700	2 520
		39.7	25.4	82.0	42.9	16.5	108.0	127.0	152.4	23.8	14.3	12.7	22.2	16 300	11 200
¹¹ / ₄	SPB104SS	1 ³ / ₄	1 ¹ / ₈	3 ²¹ / ₃₂	1 ⁷ / ₈	3 ⁴ / ₄	4 ¹¹ / ₁₆	5 ¹ / ₄	6 ⁵ / ₁₆	2 ⁷ / ₃₂	9 ¹⁶ / ₁₆	1 ² / ₂	1	4 900	3 440
		44.5	28.6	93.0	47.6	19.0	119.1	133.4	160.3	21.4	14.3	12.7	25.4	21 600	15 300
¹³ / ₈	SPB106SS	1 ³ / ₄	1 ¹ / ₈	3 ²¹ / ₃₂	1 ⁷ / ₈	3 ⁴ / ₄	4 ¹¹ / ₁₆	5 ¹ / ₄	6 ⁵ / ₁₆	2 ⁷ / ₃₂	9 ¹⁶ / ₁₆	1 ² / ₂	1	4 900	3 440
		44.5	28.6	93.0	47.6	19.0	119.1	133.4	160.3	21.4	14.3	12.7	25.4	21 600	15 300
¹⁷ / ₁₆	SPB107SS	1 ³ / ₄	1 ¹ / ₈	3 ²¹ / ₃₂	1 ⁷ / ₈	3 ⁴ / ₄	4 ¹¹ / ₁₆	5 ¹ / ₄	6 ⁵ / ₁₆	2 ⁷ / ₃₂	9 ¹⁶ / ₁₆	1 ² / ₂	1	4 900	3 440
		44.5	28.6	93.0	47.6	19.0	119.1	133.4	160.3	21.4	14.3	12.7	25.4	21 600	15 300
¹¹ / ₂	SPB108SS	1 ⁷ / ₈	1 ¹ / ₄	3 ²⁹ / ₃₂	1 ¹⁵ / ₁₆	3 ⁴ / ₄	4 ¹⁵ / ₁₆	5 ³ / ₄	6 ⁷ / ₈	3 ¹ / ₃₂	9 ¹⁶ / ₁₆	1 ² / ₂	1 ³ / ₁₆	5 600	4 270
		47.6	31.2	99.0	49.2	19.0	125.4	146.0	174.6	24.6	14.3	12.7	30.0	24 700	19 000

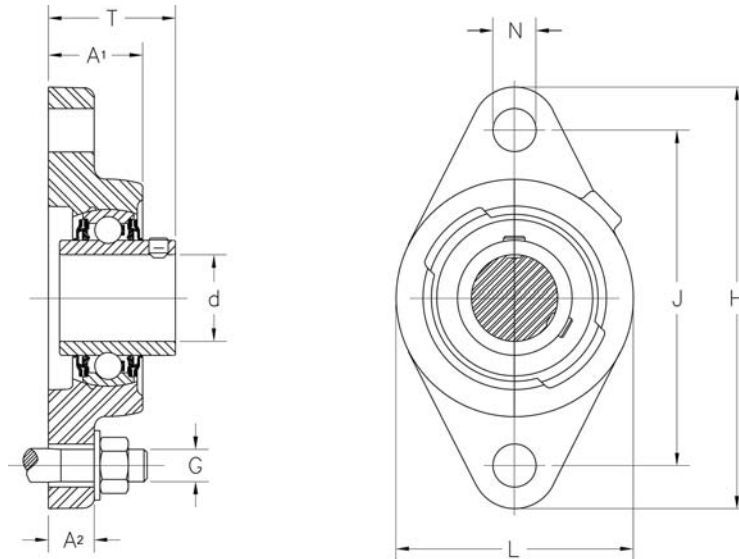
For Metric Shafts 20mm – 40mm*

Shaft Dia d mm	Pillow Block Designation	A in mm	A ₁ in mm	H in mm	H ₁ in mm	H ₂ in mm	J		L in mm	N in mm	N ₁ in mm	G in mm	S ₁ in mm	Basic Radial Load Rating	
							Min in mm	Max in mm						Dynamic C lbf N	Static C ₀ lbf N
20	SPB20SS	1 ¹ / ₄	³ / ₄	2 ¹ / ₂	1 ⁵ / ₁₆	3 ⁵ / ₆₄	3 ⁷ / ₁₆	4 ³ / ₁₆	5	1 ³ / ₁₆	2 ⁹ / ₆₄	3 ⁸ / ₈	2 ³ / ₃₂	2 400	1 470
		32.0	19.0	64.0	33.3	14.0	87.3	106.4	127.0	20.5	11.5	10.0	18.3	10 800	6 550
25	SPB25SS	1 ⁷ / ₁₆	7 ⁸ / ₈	2 ³ / ₄	1 ⁷ / ₁₆	5 ⁸ / ₈	3 ¹¹ / ₁₆	4 ⁵ / ₁₆	5 ¹ / ₈	3 ⁴ / ₄	2 ⁹ / ₆₄	3 ⁸ / ₈	2 ⁵ / ₃₂	2 700	1 750
		36.0	22.0	70.0	36.5	16.0	93.7	109.5	130.0	19.1	11.5	10.0	19.8	11 900	7 800
30	SPB30SS	1 ⁹ / ₁₆	1	3 ¹⁵ / ₆₄	1 ¹¹ / ₁₆	2 ¹ / ₃₂	4 ¹ / ₄	5	6	1 ⁵ / ₁₆	9 ¹⁶ / ₁₆	1 ² / ₂	7 ⁸ / ₈	3 700	2 520
		39.7	25.4	82.0	42.9	16.5	108.0	127.0	152.4	23.8	14.3	12.7	22.2	16 300	11 200
35	SPB35SS	1 ³ / ₄	1 ¹ / ₈	3 ²¹ / ₃₂	1 ⁷ / ₈	3 ⁴ / ₄	4 ¹¹ / ₁₆	5 ¹ / ₄	6 ⁵ / ₁₆	2 ⁷ / ₃₂	9 ¹⁶ / ₁₆	1 ² / ₂	1	4 900	3 440
		44.5	28.6	93.0	47.6	19.0	119.1	133.4	160.3	21.4	14.3	12.7	25.4	21 600	15 300
40	SPB40SS	1 ⁷ / ₈	1 ¹ / ₄	3 ²⁹ / ₃₂	1 ¹⁵ / ₁₆	3 ⁴ / ₄	4 ¹⁵ / ₁₆	5 ³ / ₄	6 ⁷ / ₈	3 ¹ / ₃₂	9 ¹⁶ / ₁₆	1 ² / ₂	1 ³ / ₁₆	5 600	4 270
		47.6	31.2	99.0	49.2	19.0	125.4	146.0	174.6	24.6	14.3	12.7	30.0	24 700	19 000

* Metric units are supplied through the Made To Order (MTO) Program

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**S2F Cast Stainless Steel
Two-Bolt Flange Units**
Stainless Steel Insert Bearing
XD_S Series



For Inch Shafts ^{3/4} – 1^{1/2}

Shaft Dia d in	Flange Unit Designation	A ₁ in mm	A ₂ in mm	H in mm	J in mm	L in mm	N in mm	G in mm	T in mm	Basic Radial Load Rating	
										Dynamic C lbf N	Static C _o lbf N
^{3/4}	S2F012SS	^{11/64} 25.8	^{7/16} 11.1	^{413/32} 111.9	^{317/32} 89.7	^{23/8} 60.3	^{7/16} 11.1	^{3/8} 10.0	^{19/32} 32.5	2 400 10 800	1 470 6 550
1	S2F100SS	^{15/32} 29.4	^{17/32} 13.5	^{47/8} 123.4	^{357/64} 98.8	^{23/4} 69.9	^{1/2} 12.7	^{7/16} 11.0	^{17/16} 36.5	2 700 11 900	1 750 7 800
^{13/16}	S2F103SS	^{111/32} 34.1	^{17/32} 13.5	^{59/16} 141.3	^{419/32} 116.7	^{31/8} 79.4	^{1/2} 12.7	^{7/16} 11.0	^{121/32} 42.1	3 700 16 300	2 520 11 200
^{11/4}	S2F104SSR	^{111/32} 34.1	^{17/32} 13.5	^{59/16} 141.3	^{419/32} 116.7	^{31/8} 79.4	^{1/2} 12.7	^{7/16} 11.0	^{121/32} 42.1	3 700 16 300	2 520 11 200
^{11/4}	S2F104SS	^{113/32} 35.7	^{9/16} 14.3	^{61/8} 155.6	^{51/8} 130.2	^{35/8} 92.1	^{9/16} 14.3	^{1/2} 12.7	^{113/16} 46.0	4 900 21 600	3 440 15 300
^{13/8}	S2F106SS	^{113/32} 35.7	^{9/16} 14.3	^{61/8} 155.6	^{51/8} 130.2	^{35/8} 92.1	^{9/16} 14.3	^{1/2} 12.7	^{113/16} 46.0	4 900 21 600	3 440 15 300
^{17/16}	S2F107SS	^{113/32} 35.7	^{9/16} 14.3	^{61/8} 155.6	^{51/8} 130.2	^{35/8} 92.1	^{9/16} 14.3	^{1/2} 12.7	^{113/16} 46.0	4 900 21 600	3 440 15 300
^{11/2}	S2F108SS	^{117/32} 38.9	^{9/16} 14.3	^{63/4} 171.5	^{521/32} 143.7	⁴ 101.6	^{9/16} 14.3	^{1/2} 12.7	^{23/32} 53.0	5 600 24 700	4 270 19 000

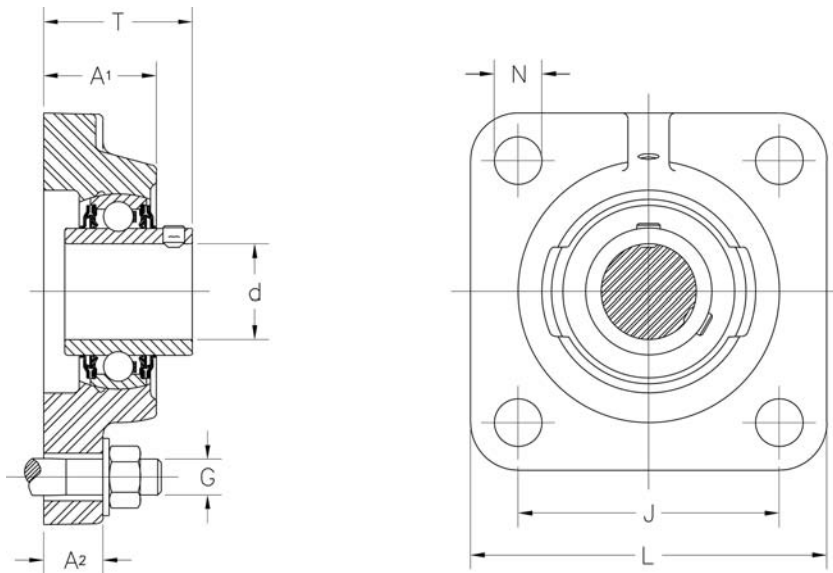
For Metric Shafts 20mm – 40mm*

Shaft Dia d mm	Flange Unit Designation	A ₁ in mm	A ₂ in mm	H in mm	J in mm	L in mm	N in mm	G in mm	T in mm	Basic Radial Load Rating	
										Dynamic C lbf N	Static C _o lbf N
20	S2F20SS	^{11/64} 25.8	^{7/16} 11.1	^{413/32} 111.9	^{317/32} 89.7	^{23/8} 60.3	^{7/16} 11.1	^{3/8} 10.0	^{19/32} 32.5	2 400 10 800	1 470 6 550
25	S2F25SS	^{15/32} 29.4	^{17/32} 13.5	^{47/8} 123.4	^{357/64} 98.8	^{23/4} 69.9	^{1/2} 12.7	^{7/16} 11.0	^{17/16} 36.5	2 700 11 900	1 750 7 800
30	S2F30SS	^{111/32} 34.1	^{17/32} 13.5	^{59/16} 141.3	^{419/32} 116.7	^{31/8} 79.4	^{1/2} 12.7	^{7/16} 11.0	^{121/32} 42.1	3 700 16 300	2 520 11 200
35	S2F35SS	^{113/32} 35.7	^{9/16} 14.3	^{61/8} 155.6	^{51/8} 130.2	^{35/8} 92.1	^{9/16} 14.3	^{1/2} 12.7	^{113/16} 46.0	4 900 21 600	3 440 15 300
40	S2F40SS	^{117/32} 38.9	^{9/16} 14.3	^{63/4} 171.5	^{521/32} 143.7	⁴ 101.6	^{9/16} 14.3	^{1/2} 12.7	^{23/32} 53.0	5 600 24 700	4 270 19 000

* Metric units are supplied through the Made To Order (MTO) Program

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**S4F Cast Stainless Steel
Four-Bolt Flange Units**
Stainless Steel Insert Bearing
XD_S Series



For Inch Shafts $3/4 - 1 1/2$

Shaft Dia d in	Flange Unit Designation	A ₁ in mm	A ₂ in mm	J in mm	L in mm	N in mm	G in mm	T in mm	Basic Radial Load Rating	
									Dynamic C lbf N	Static C ₀ lbf N
3/4	S4F012SS	1 ^{1/64}	7/16	2 ^{1/2}	3 ^{3/8}	7/16	3/8	1 ^{15/32}	2 400	1 470
		25.8	11.1	63.5	85.7	11.1	10.0	37.3	10 800	6 550
1	S4F100SS	1 ^{5/32}	1 ^{7/32}	2 ^{3/4}	3 ^{3/4}	2 ^{9/64}	7/16	1 ^{17/32}	2 700	1 750
		29.4	13.5	69.9	95.3	11.5	11.0	38.9	11 900	7 800
1 ^{3/16}	S4F103SS	1 ^{11/32}	1 ^{7/32}	3 ^{1/4}	4 ^{1/4}	1/2	7/16	1 ^{21/32}	3 700	2 520
		34.1	13.5	82.6	108.0	12.7	11.0	42.1	16 300	11 200
1 ^{1/4}	S4F104SSR	1 ^{11/32}	1 ^{7/32}	3 ^{1/4}	4 ^{1/4}	1/2	7/16	1 ^{21/32}	3 700	2 520
		34.1	13.5	82.6	108.0	12.7	11.0	42.1	16 300	11 200
1 ^{1/4}	S4F104SS	1 ^{13/32}	9/16	3 ^{5/8}	4 ^{5/8}	9/16	1/2	1 ^{13/16}	4 900	3 440
		35.7	14.3	92.1	117.5	14.3	12.7	46.0	21 600	15 300
1 ^{3/8}	S4F106SS	1 ^{13/32}	9/16	3 ^{5/8}	4 ^{5/8}	9/16	1/2	1 ^{13/16}	4 900	3 440
		35.7	14.3	92.1	117.5	14.3	12.7	46.0	21 600	15 300
1 ^{7/16}	S4F107SS	1 ^{13/32}	9/16	3 ^{5/8}	4 ^{5/8}	9/16	1/2	1 ^{13/16}	4 900	3 440
		35.7	14.3	92.1	117.5	14.3	12.7	46.0	21 600	15 300
1 ^{1/2}	S4F108SS	1 ^{17/32}	9/16	4	5 ^{1/8}	9/16	1/2	2 ^{3/32}	5 600	4 270
		38.9	14.3	101.6	130.2	14.3	12.7	53.2	24 700	19 000

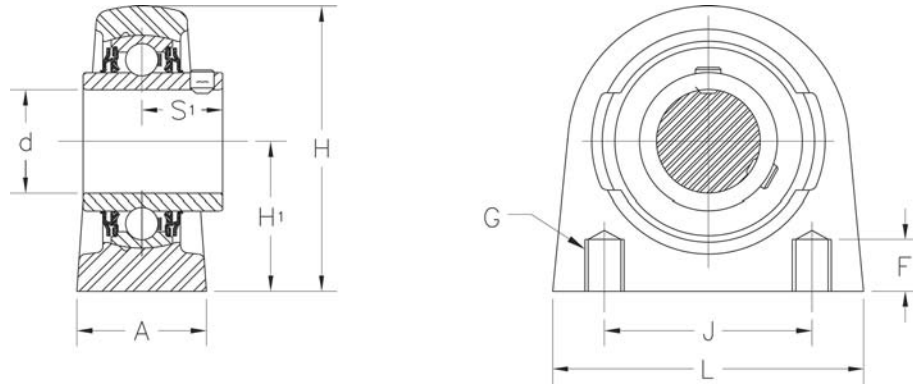
For Metric Shafts 20mm – 40mm*

Shaft Dia d mm	Flange Unit Designation	A ₁ in mm	A ₂ in mm	J in mm	L in mm	N in mm	G in mm	T in mm	Basic Radial Load Rating	
									Dynamic C lbf N	Static C ₀ lbf N
20	S4F20SS	1 ^{1/64}	7/16	2 ^{1/2}	3 ^{3/8}	7/16	3/8	1 ^{15/32}	2 400	1 470
		25.8	11.1	63.5	85.7	11.1	10.0	37.3	10 800	6 550
25	S4F25SS	1 ^{5/32}	1 ^{7/32}	2 ^{3/4}	3 ^{3/4}	2 ^{9/64}	7/16	1 ^{17/32}	2 700	1 750
		29.4	13.5	69.9	95.3	11.5	11.0	38.9	11 900	7 800
30	S4F30SS	1 ^{11/32}	1 ^{7/32}	3 ^{1/4}	4 ^{1/4}	1/2	7/16	1 ^{21/32}	3 700	2 520
		34.1	13.5	82.6	108.0	12.7	11.0	42.1	16 300	11 200
35	S4F35SS	1 ^{13/32}	9/16	3 ^{5/8}	4 ^{5/8}	9/16	1/2	1 ^{13/16}	4 900	3 440
		35.7	14.3	92.1	117.5	14.3	12.7	46.0	21 600	15 300
40	S4F40SS	1 ^{17/32}	9/16	4	5 ^{1/8}	9/16	1/2	2 ^{3/32}	5 600	4 270
		38.9	14.3	101.6	130.2	14.3	12.7	53.2	24 700	19 000

* Metric units are supplied through the Made To Order (MTO) Program

MRC Marathon Series Mounted Bearing Units are greased and sealed for life. MRC does not recommend regreasing. If required, units with relubrication fittings are available for your application. Adding a "G" suffix to the part number denotes a regreasable unit.

**STB Cast Stainless Steel
Tapped Base Units**
Stainless Steel Insert Bearing
XD_S Series



For Inch Shafts ^{3/4} – 1^{1/2}

Shaft Dia d in	Tapped-Base Unit Designation	A in mm	H in mm	H ₁ in mm	J in mm	L in mm	F in mm	G UNC Threads	Basic Radial Load Rating		
									S ₁ in mm	Dynamic C lbf N	Static C ₀ lbf N
^{3/4}	STB012SS	^{11/8} 28.6	^{21/2} 63.5	^{15/16} 33.3	2 50.8	^{25/8} 66.7	^{1/2} 12.7	^{3/8} -16 18.3	^{23/32} 18.3	2 400 10 800	1 470 6 550
1	STB100SS	^{11/4} 31.8	^{23/4} 69.9	^{17/16} 36.5	2 50.8	3 76.2	^{1/2} 12.7	^{3/8} -16 19.8	^{25/32} 19.8	2 700 11 900	1 750 7 800
^{13/16}	STB103SS	^{11/2} 38.1	^{31/4} 82.6	^{111/16} 42.9	3 76.2	^{37/8} 98.4	^{5/8} 15.9	^{7/16} -14 22.2	^{7/8} 22.2	3 700 16 300	2 520 11 200
^{11/4}	STB104SSR	^{11/2} 38.1	^{31/4} 82.6	^{111/16} 42.9	3 76.2	^{37/8} 98.4	^{5/8} 15.9	^{7/16} -14 22.2	^{7/8} 22.2	3 700 16 300	2 520 11 200
^{11/4}	STB104SS	^{11/2} 38.1	^{35/8} 92.1	^{17/8} 47.6	^{31/4} 82.6	^{41/8} 104.8	^{3/4} 19.1	^{1/2} -13 25.4	1 25.4	4 900 21 600	3 440 15 300
^{13/8}	STB106SS	^{11/2} 38.1	^{35/8} 92.1	^{17/8} 47.6	^{31/4} 82.6	^{41/8} 104.8	^{3/4} 19.1	^{1/2} -13 25.4	1 25.4	4 900 21 600	3 440 15 300
^{17/16}	STB107SS	^{11/2} 38.1	^{35/8} 92.1	^{17/8} 47.6	^{31/4} 82.6	^{41/8} 104.8	^{3/4} 19.1	^{1/2} -13 25.4	1 25.4	4 900 21 600	3 440 15 300
^{11/2}	STB108SS	^{15/8} 41.3	^{315/16} 100.0	^{115/16} 49.2	^{31/2} 88.9	^{41/2} 114.3	^{3/4} 19.1	^{1/2} -13 30.0	^{13/16} 30.0	5 600 24 700	4 270 19 000

For Metric Shafts 20mm – 40mm*

Shaft Dia d mm	Tapped-Base Unit Designation	A in mm	H in mm	H ₁ in mm	J in mm	L in mm	F in mm	G UNC Threads	Basic Radial Load Rating		
									S ₁ in mm	Dynamic C lbf N	Static C ₀ lbf N
20	STB20SS	^{11/8} 28.6	^{21/2} 63.5	^{15/16} 33.3	2 50.8	^{25/8} 66.7	^{1/2} 12.7	^{3/8} -16 18.3	^{23/32} 18.3	2 400 10 800	1 470 6 550
25	STB25SS	^{11/4} 31.8	^{23/4} 69.9	^{17/16} 36.5	2 50.8	3 76.2	^{1/2} 12.7	^{3/8} -16 19.8	^{25/32} 19.8	2 700 11 900	1 750 7 800
30	STB30SS	^{11/2} 38.1	^{31/4} 82.6	^{111/16} 42.9	3 76.2	^{37/8} 98.4	^{5/8} 15.9	^{7/16} -14 22.2	^{7/8} 22.2	3 700 16 300	2 520 11 200
35	STB35SS	^{11/2} 38.1	^{35/8} 92.1	^{17/8} 47.6	^{31/4} 82.6	^{41/8} 104.8	^{3/4} 19.1	^{1/2} -13 25.4	1 25.4	4 900 21 600	3 440 15 300
40	STB40SS	^{15/8} 41.3	^{315/16} 100.0	^{115/16} 49.2	^{31/2} 88.9	^{41/2} 114.3	^{3/4} 19.1	^{1/2} -13 30.0	^{13/16} 30.0	5 600 24 700	4 270 19 000

* Metric units are supplied through the Made To Order (MTO) Program

MRC Marathon Series Mounted Bearing Units are greased and sealed for life. MRC does not recommend regreasing. If required, units with relubrication fittings are available for your application. Adding a "G" suffix to the part number denotes a regreasable unit.

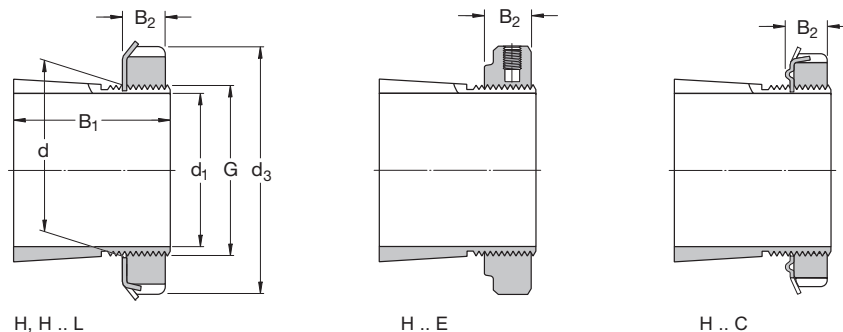


Sleeves

Adapter Sleeves					
Prefixes		HE	HME locknut used	AOH	Metric sleeves having a bore diameter of 200 mm and above are supplied as standard with two oil-supply ducts at the threaded side and have distribution grooves around the circumference and in the axial direction on the outside surface as well as in the bore. ²⁾
H	Sleeve for shafts in metric dimensions*	L	Sleeves with low section height nuts and washers (KML & MBL vs. KM & MB)	AOHX	Modified AOH
HA	Sleeve for shafts of 1/16" increments	TL	The standard HM..T nut and MB washer, have been replaced by HM30 and MS 30 nut and washer. These have a lower section height.	Suffix	
HE	Sleeve for shafts of 1/4" increments	U	Sleeve only (no nut/washer)	G	Thread pitch diameter changed to adhere to ISO specifications
HS	Sleeve for shafts of 1/8" increments	<hr/> USA design <hr/>		<hr/> Special Features <hr/>	
OH	Oil hole in large end of sleeve to inject oil between the sleeve and the bearing generally for metric shafts sizes if inch an example would be OHA-----.	SNW	Inch dimensions and fitted with N & AN locknuts and W and WO washers.	Note: Up to size 40, the sleeves are phosphated. Larger sizes are untreated and oiled.	
OH..B	Oil injected between bearing, sleeve and shaft. Sizes 32-40; one oil-supply duct from large end of sleeve. Size ≥ 44, two oil supply ducts from large end of sleeve.	SNP	Inch dimensions and fitted with N locknuts and PL lockplates		
OH..H	Oil injected between bearing and sleeve, one oil supply duct from nut side of sleeve.	<hr/> Specifications <hr/>			
OH..HB	Oil injected between bearing, sleeve and shaft. Sizes 32-40: One oil-supply duct from nut side of sleeve. Size ≥ 44 up; Two oil supply ducts from nut side of sleeve.	Metric sleeves To ISO 2982-1: 1995			
Suffixes		Inch sleeves To ANSI/ABMA Std. 8.2.			
B	Whitworth threads	<hr/> Withdrawal sleeves <hr/>			
C	Sleeves with ribbed washer to be used with sealed bearings**	Prefixes			
E	The standard lock nut and washer is replaced by a KMFE, washerless nut or the standard lock nut HM30 is replaced by an HME nut with a recessed outside diameter.	AH	Standard withdrawal sleeve, preservative coated (metric) ²⁾		
		AHX	Modified AH (metric) ²⁾		
		AHA	U.S.A. variant ¹⁾		
		SK	U.S.A. variant ¹⁾		
		ASK	U.S.A. variant ¹⁾		
		¹⁾ Being phased out			
		²⁾ Sizes 04-40 now zinc phosphated			
				[*] Occasionally a metric sleeve will be used for an inch dimension shaft because the two dimensions are almost identical, i.e. 3 15/16" and 100 mm.	
				^{**} Other low section height sleeves can also be used with sealed bearings.	
				^{***} Some sealed bearings require wider sleeves.	

Metric Sleeves

d 17 - 55 mm



Dimensions						Mass	Designations		Locking device	Appropriate hydraulic nut	bearing(s)
d ₁	d	d ₃	B ₁	B ₂	G		Adptr. sleeve with nut and lock device	Lock nut lock device			
mm						kg	-				
17	20	32	24	7	M 20x1	0.036	H 204	KM 4	MB 4	-	1204 EK
	20	32	28	7	M 20x1	0.04	H 304	KM 4	MB 4	-	2204 EK, 1304 EK
20	25	38	26	8	M 25x1.5	0.064	H 205	KM 5	MB 5	-	1205 EK
	25	38	29	8	M 25x1.5	0.071	H 305	KM 5	MB 5	-	2205 EK, 1305 EK, 22205 EK
	25	38	29	8.5	M 25x1.5	0.071	H 305 C	KM 5	MB 5 C	-	2205 E-2RS1KTN9
	25	38	29	10.5	M 25x1.5	0.076	H 305 E	KMFE 5	-	-	
25	30	45	27	8	M 30x1.5	0.086	H 206	KM 6	MB 6	-	1206 EK
	30	45	31	8	M 30x1.5	0.095	H 306	KM 6	MB 6	-	2206 EK, 1306 EK, 22206 EK
	30	45	31	8.5	M 30x1.5	0.095	H 306 C	KM 6	MB 6 C	-	2206 E-2RS1KTN9
	30	45	31	10.5	M 30x1.5	0.11	H 306 E	KMFE 6	-	-	C 2206 KTN9, C 2206 KV
	30	45	38	8	M 30x1.5	0.11	H 2306	KM 6	MB 6	-	2306 K
30	35	52	29	9	M 35x1.5	0.12	H 207	KM 7	MB 7	-	1207 EK
	35	52	35	9	M 35x1.5	0.14	H 307	KM 7	MB 7	-	2207 EK, 1307 EK, 22207 EK
	35	52	35	9.5	M 35x1.5	0.14	H 307 C	KM 7	MB 7 C	-	2207 E-2RS1KTN9
	35	52	35	11.5	M 35x1.5	0.15	H 307 E	KMFE 7	-	-	C 2207 KTN9, C 2207 KV
	35	52	43	9	M 35x1.5	0.16	H 2307	KM 7	MB 7	-	2307 EK
35	40	58	31	10	M 40x1.5	0.16	H 208	KM 8	MB 8	-	1208 EK
	40	58	36	10	M 40x1.5	0.17	H 308	KM 8	MB 8	-	2208 EK, 1308 EK, 22208 EK, 21308 CCK, C2208 KV
	40	58	36	10.5	M 40x1.5	0.17	H 308 C	KM 8	MB 8 C	-	2208 E-2RS1KTN9
	40	58	36	13	M 40x1.5	0.19	H 308 E	KMFE 8	-	-	C2208 KTN9
	40	58	46	10	M 40x1.5	0.22	H 2308	KM 8	MB 8	-	2308 EK, 22308 EK
40	45	65	33	11	M 45x1.5	0.21	H 209	KM 9	MB 9	-	1209 EK
	45	65	39	11	M 45x1.5	0.23	H 309	KM 9	MB 9	-	2209 EK, 1309 EK, 22209 EK, 21309 CCK
	45	65	39	11.5	M 45x1.5	0.23	H 309 C	KM 9	MB 9 C	-	2209 E-2RS1KTN9
	45	65	39	13	M 45x1.5	0.24	H 309 E	KMFE 9	-	-	C 2209 KTN9, C2209 KV
	45	65	50	11	M 45x1.5	0.27	H 2309	KM 9	MB 9	-	2309 EK, 22309 EK
45	50	70	35	12	M 50x1.5	0.24	H 210	KM 10	MB 10	HMV 10 E	1210 EK
	50	70	42	12	M 50x1.5	0.27	H 310	KM 10	MB 10	HMV 10 E	2210 EK, 1310 EK, 22210 EK, 21310 CCK
	50	70	42	12.5	M 50x1.5	0.27	H 310 C	KM 10	MB 10 C	HMV 10 E	2210-2RS1KTN9
	50	70	42	14	M 50x1.5	0.3	H 310 E	KMFE 10	-	HMV 10 E	C 2210 KTN9, C 2210 KV
	50	70	55	12	M 50x1.5	0.34	H 2310	KM 10	MB 10	HMV 10 E	2310 K, 22310 EK
50	55	75	37	12.5	M 55x2	0.28	H 211	KM 11	MB 11	HMV 11 E	1211 EK
	55	75	45	12.5	M 55x2	0.32	H 311	KM 11	MB 11	HMV 11 E	2211 EK, 1311 EK, 22211 EK, 21311 CCK
	55	75	45	13	M 55x2	0.32	H 311 C	KM 11	MB 11 C	HMV 11 E	2211 E-2RS1KTN9
	55	75	45	14	M 55x2	0.34	H 311 E	KMFE 11	-	HMV 11 E	C 2211 KTN9, C2211 KV
	55	75	59	12.5	M 55x2	0.39	H 2311	KM 11	MB 11	HMV 11 E	2311 K, 22311 EK
55	60	80	38	13	M 60x2	0.31	H 212	KM 12	MB 12	HMV 12 E	1212 EK
	60	80	47	13	M 60x2	0.36	H 312	KM 12	MB 12	HMV 12 E	2212 EK, 1312 EK, 22212 EK, 21312 CCK, C 2212 KV
	60	80	47	14	M 60x2	0.4	H 312 E	KMFE 12	-	HMV 12 E	C 2212 KTN9
	60	80	62	13	M 60x2	0.45	H 2312	KM 12	MB 12	HMV 12 E	2312 K, 22312 EK

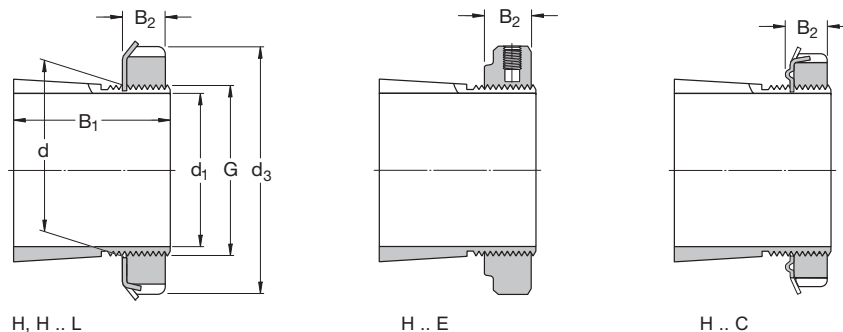
Metric Sleeves

d 60 - 110 mm

Dimensions						Mass	Designations					
d ₁	d	d ₃	B ₁	B ₂	G		Adptr. sleeve with nut and lock device	Lock nut	Locking device	Appropriate hydraulic nut	bearing(s)	
mm						kg	–					
60	65	85	40	14	M 65x2	0.36	H 213	KM 13	MB 13	HMV 13 E	1213 EK	
	65	85	50	14	M 65x2	0.42	H 313	KM 13	MB 13	HMV 13 E	2213 EK, 1313 EK, 22213 EK, 21213 CCK, C 2213 KV	
	65	85	50	15	M 65x2	0.42	H 313 C	KM 13	MB 13 C	HMV 13 E	22213 E-2RS1KTN9	
	65	85	50	15	M 65x2	0.43	H 313 E	KMFE 13	–	HMV 13 E	C 2213 KTN9	
	65	85	65	14	M 65x2	0.52	H 2313	KM 13	MB 13	HMV 13 E	2313 K, 22313 EK	
	70	92	52	14	M 70x2	0.67	H 314	KM 14	MB 14	HMV 14 E	22214EK, 21314 CCK,C 2214 KV	
	70	92	52	15	M 70x2	0.67	H 314 E	KMFE 14	–	HMV 14 E	C 2214 KTN9	
	70	92	68	14	M 70x2	0.88	H 2314	KM 14	MB 14	HMV 14 E	22314 EK, C 2314 K	
	65	75	98	43	15	M 75x2	0.66	H 215	KM 15	MB 15	HMV 15 E	1215 K
		75	98	55	15	M 75x2	0.78	H 315	KM 15	MB 15	HMV 15 E	2215 K, 1315 K, 22215 EK, 21315 CCK, C 2215 KV
75		98	55	16	M 75x2	0.8	H 315 E	KMFE 15	–	HMV 15 E	C 2215 K	
75		98	73	15	M 75x2	1.1	H 2315	KM 15	MB 15	HMV 15 E	2315 K, 22315 EK, C 2315 K	
70	80	105	46	17	M 80x2	0.81	H 216	KM 16	MB 16	HMV 16 E	1216 K	
	80	105	59	17	M 80x2	0.95	H 316	KM 16	MB 16	HMV 16 E	2216 EK, 1316 K, 22216 EK, 21316 CCK. C 2216 KV	
	80	105	59	18	M 80x2	1.01	H 316 E	KMFE 16	–	HMV 16 E	C 2216 K	
	80	105	78	17	M 80x2	1.2	H 2316	KM 16	MB 16	HMV 16 E	2316 K, 22316 EK, C 2316 K	
75	85	110	50	18	M 85x2	0.94	H 217	KM 17	MB 17	HMV 17 E	1217 K	
	85	110	63	18	M 85x2	1.1	H 317	KM 17	MB 17	HMV 17 E	2217 K, 1317 K, 22217 EK, 21317 CCK, C 2217 KV	
	85	110	63	19	M 85x2	1.17	H 317 E	KMFE 17	–	HMV 17 E	C 2217 K	
	85	110	82	18	M 85x2	1.35	H 2317	KM 17	MB 17	HMV 17 E	2317 K, 22317 EK, C 2317 K	
80	90	120	52	18	M 90x2	1.1	H 218	KM 18	MB 18	HMV 18 E	1218 K	
	90	120	65	18	M 90x2	1.3	H 318	KM 18	MB 18	HMV 18 E	2218 K, 1318 K, 22218 EK, 21318 CCK, C2218 KV	
	90	120	65	19	M 90x2	1.43	H 318 E	KMFE 18	–	HMV 18 E	C 2218 K	
	90	120	86	18	M 90x2	1.6	H 2318	KM 18	MB 18	HMV 18 E	2318 K, 23218 CCK/W33, 22318 EK, C2318 K	
85	95	125	55	19	M 95x2	1.25	H 219	KM 19	MB 19	HMV 19 E	1219 K	
	95	125	68	19	M 95x2	1.4	H 319	KM 19	MB 19	HMV 19 E	2219 K, 1319K, 22219 EK, 21319 CCK	
	95	125	68	20	M 95x2	1.41	H 319 E	KMFE 19	–	HMV 19 E	C 2219 K	
	95	125	90	19	M 95x2	1.8	H 2319	KM 19	MB 19	HMV 19 E	2319 K, 22319 EK, C 2319 K	
90	100	130	58	20	M 100x2	1.4	H 220	KM 20	MB 20	HMV 20 E	1220 K	
	100	130	71	20	M 100x2	1.6	H 320	KM 20	MB 20	HMV 20 E	2220 K, 1320 K, 22220 EK, 21320 CCK,	
	100	130	71	21	M 100x2	1.72	H 320 E	KMFE 20	–	HMV 20 E	C 2220 K	
	100	130	76	20	M 100x2	1.8	H 3120	KM 20	MB 20	HMV 20 E	23120 CCK/W33, C 3120 K, C3120 KV	
	100	130	97	20	M 100x2	2	H 2320	KM 20	MB 20	HMV 20 E	2320 K, 23220 CCK/W33, 22320 EK, C2320 K	
100	110	145	63	21	M 110x2	1.8	H 222	KM 22	MB 22	HMV 22 E	1222 K	
	110	145	77	21	M 110x2	2.04	H 322	KM 22	MB 22	HMV 22 E	2222 K, 1322 K, 23022 CCK, 22222 EK, 21322 CCK	
	110	145	77	21.5	M 110x2	2.11	H 322 E	KMFE 22	–	HMV 22 E	C 3022 K, C 2222 K	
	110	145	81	21	M 110x2	2.1	H 3122	KM 22	MB 22	HMV 22 E	23122 CCK/W33	
	110	145	105	21	M 110x2	2.75	H 2322	KM 22	MB 22	HMV 22 E	2322 K, 23222 CCK/W33, 22322 EK	
110	120	145	72	22	M 120x2	1.8	H 3024	KML 24	MBL 24	HMV 24 E	1224 K, 23024 CCK/W33, C3024 K	
	120	155	72	26	M 120x2	1.87	H 3024 E	KMFE 24	–	HMV 24 E	C 3024 K	
	120	155	88	22	M 120x2	2.5	H 3124	KM 24	MB 24	HMV 24 E	23124 CCCK/W33, 22224 EK	
	120	145	88	22	M 120x2	2.5	H 3124 L	KML 24	MBL 24	HMV 24 E	C 2224 K	
	120	155	112	22	M 120x2	3	H 2324	KM 24	MB 24	HMV 24 E	23224 CCK/W33, 22324 CCK/W33	
	120	145	112	22	M 120x2	3.12	H 2324 L	KML 24	MBL 24	HMV 24 E	C 3224 K	

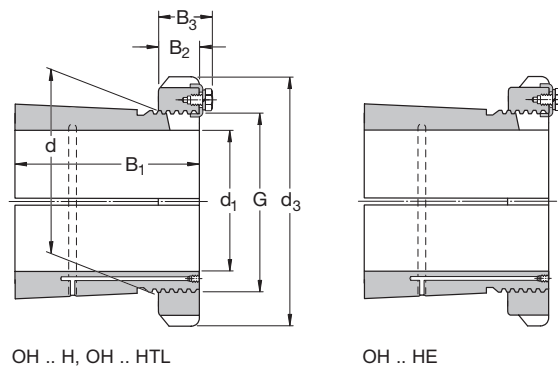
Metric Sleeves

d 115 - 180 mm



Dimensions						Mass	Designations		Locking device	Appropriate hydraulic nut	bearing(s)
d ₁	d	d ₃	B ₁	B ₂	G		Adptr. sleeve with nut and lock device	Lock nut			
mm						kg	-				
115	130	155	80	23	M 130x2	2.8	H 3026	KML 26	MBL 26	HMV 26 E	23026 CCK/W33, C3026 K
	130	165	92	23	M 130x2	3.45	H 3126	KM 26	MB 26	HMV 26 E	23126 CCK/W33, 22226 EK
	130	155	92	23	M 130x2	3.65	H 3126 L	KML 26	MBL 26	HMV 26 E	C 2226 K
	130	165	121	23	M 130x2	4.45	H 2326	KM 26	MB 26	HMV 26 E	23226 CCK/W33, 22326 CCK/W33
125	140	165	82	24	M 140x2	3.05	H 3028	KML 28	MBL 28	HMV 28 E	23028 CCK/W33, C 3028 K
	140	180	97	24	M 140x2	4.1	H 3128	KM 28	MB 28	HMV 28 E	23128 CCK/W33, 22228 CCK/W33
	140	165	97	24	M 140x2	3.62	H 3128 L	KML 28	MBL 28	HMV 28 E	C 2228 K
	140	180	131	24	M 140x2	5.4	H 2328	KM 28	MB 28	HMV 28 E	23228 CCK/W33, 22328 CCK/W33
135	150	180	87	26	M 150x2	3.75	H 3030	KML 30	MBL 30	HMV 30 E	23030 CCK/W33
	150	195	111	26	M 150x2	5.25	H 3130	KM 30	MB 30	HMV 30 E	23130 CCK/W33, 22230 CCK/W33
	150	180	111	26	M 150x2	4.7	H 3130 L	KML 30	MBL 30	HMV 30 E	C 3130 K, 2230 K, C3130 K, C2230 K
	150	195	139	26	M 150x2	6.4	H 2330	KM 30	MB 30	HMV 30 E	23230 CCK/W33, 22330 CCK/W33
140	160	190	93	27.5	M 160x3	5.1	H 3032	KML 32	MBL 32	HMV 32 E	23032 CCK/W33, C3032 K
	160	210	119	27.5	M 160x3	7.25	H 3132	KM 32	MB 32	HMV 32 E	23132 CCK/W33, 22232 CCK/W33
	160	190	119	27.5	M 160x3	6.4	H 3132 L	KML 32	MBL 32	HMV 32 E	C 3132 K
	160	210	147	27.5	M 160x3	8.8	H 2332	KM 32	MB 32	HMV 32 E	23232 CCK/W33, 22332 CCK/W33
	160	190	147	27.5	M 160x3	7.95	H 2332 L	KML 32	MBL 32	HMV 32 E	C 3232 K
150	170	200	101	28.5	M 170x3	5.8	H 3034	KML 34	MBL 34	HMV 34 E	23034 CCK/W33, C 3034 K
	170	220	122	28.5	M 170x3	8.1	H 3134	KM 34	MB 34	HMV 34 E	23134 CCK/W33, 22234 CCK/W33
	170	200	122	28.5	M 170x3	7.15	H 3134 L	KML 34	MBL 34	HMV 34 E	C 3134 K, C2334 K
	170	220	154	28.5	M 170x3	9.9	H 2334	KM 34	MB 34	HMV 34 E	23234 CCK/W33, 22334 CCK/W33
160	180	210	87	29.5	M 180x3	5.7	H 3936	KML 36	MBL 36	HMV 36 E	23936 CCK/W33
	180	210	109	29.5	M 180x3	6.7	H 3036	KML 36	MBL 36	HMV 36 E	23036 CCK/W33, C3036 K
	180	230	131	29.5	M 180x3	9.15	H 3136	KM 36	MB 36	HMV 36 E	23136 CCK/W33, 22236 CCK/W33
	180	210	131	29.5	M 180x3	8.15	H 3136 L	KML 36	MBL 36	HMV 36 E	C 3136 K
	180	230	161	30	M 180x3	11	H 2336	KM 36	MB 36	HMV 36 E	23236 CCK/W33, 22336 CCK/W33, C3236 K
170	190	220	89	30.5	M 190x3	6.2	H 3938	KML 38	MBL 38	HMV 38 E	23938 CCK/W33
	190	220	112	30.5	M 190x3	7.25	H 3038	KML 38	MBL 38	HMV 38 E	23038 CCK/W33, C 3038 K
	190	240	141	30.5	M 190x3	10.5	H 3138	KM 38	MB 38	HMV 38 E	23138 CCK/W33, 22238 CCK/W33
	190	240	169	30.5	M 190x3	12	H 2338	KM 38	MB 38	HMV 38 E	23238 CCK/W33, 22338 CCK/W33
180	200	240	98	31.5	M 200x3	7.9	H 3940	KML 40	MBL 40	HMV 40 E	23940 CCK/W33
	200	240	120	31.5	M 200x3	8.9	H 3040	KML 40	MBL 40	HMV 40 E	23040 CCK/W33, C 3040 K
	200	250	150	31.5	M 200x3	12	H 3140	KM 40	MB 40	HMV 40 E	23140 CCK/W33, 22240 CCK/W33, C3140 K
	200	250	176	31.5	M 200x3	13.5	H 2340	KM 40	MB 40	HMV 40 E	23240 CCK/W33, 22340 CCK/W33

Metric Sleeves d 200 - 400 mm

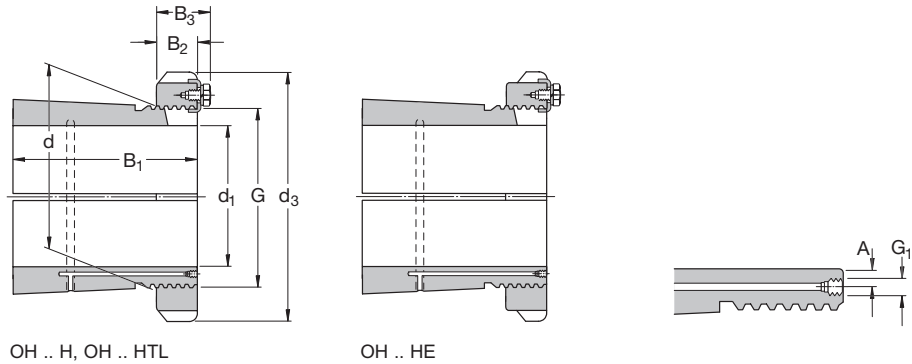


Dimensions										Mass	Designations	Lock nut	Locking device	Appropriate hydraulic nut	bearing(s)
d ₁	d	d ₃	B ₁	B ₂	B ₃	G	G ₁	A		Adapter sleeve with nut and locking device					
mm										kg	-				
200	220	260	96	30	41	Tr 220x4	M 6	4.2	7.95	OH 3944 H	HM 3044	MS 3044	HMV 44 E	23944 CCK/W33	
	220	260	126	30	41	Tr 220x4	M 6	4.2	9.9	OH 3044 H	HM 3044	MS 3044	HMV 44 E	C 3044 K	
	220	280	161	35	-	Tr 220x4	M 6	4.2	15	OH 3144 H	HM 44 T	MB 44	HMV 44 E	23144 CCK/W33, 22244 CCK/W33, C 2244 K	
	220	260	161	30	41	Tr 220x4	M 6	4.2	14.3	OH 3144 HTL	HM 3044	MS 3044	HMV 44 E	C 3144 K	
	220	280	186	35	-	Tr 220x4	M 6	4.2	17	OH 2344 H	HM 44 T	MB 44	HMV 44 E	23244 CCK/W33, 22344 CCK/W33	
	220	260	161	30	41	Tr 220x4	M 6	4.2	14.3	OH 3144 HTL	HM 3044	MS 3044	HMV 44 E	C 3144 K	
220	240	290	101	34	46	Tr 240x4	M 6	4.2	11	OH 3948 H	HM 3048	MS 3052-48	HMV 48 E	23948 CCK/W33	
	240	290	133	34	46	Tr 240x4	M 6	4.2	12	OH 3048 H	HM 3048	MS 3052-48	HMV 48 E	23048 CCK/W33, C 3048 K	
	240	300	172	37	-	Tr 240x4	M 6	4.2	16.5	OH 3148 H	HM 48 T	MB 48	HMV 48 E	23148 CCK/W33, 22248 CCK/W33	
	240	290	172	34	46	Tr 240x4	M 6	4.2	15.1	OH 3148 HTL	HM 3048	MS 3052-48	HMV 48 E	C 3148 K	
	240	300	199	37	-	Tr 240x4	M 6	4.2	19	OH 2348 H	HM 48 T	MB 48	HMV 48 E	23248 CCK/W33, 22348 CCK/W33	
	240	290	172	34	46	Tr 240x4	M 6	4.2	15.1	OH 3148 HTL	HM 3048	MS 3052-48	HMV 48 E	C 3148 K	
240	260	310	116	34	46	Tr 260x4	M 6	4.2	11.7	OH 3952 H	HM 3052	MS 3052-48	HMV 52 E	23952 CCK/W33	
	260	310	145	34	46	Tr 260x4	M 6	4.2	13.5	OH 3052 H	HM 3052	MS 3052-48	HMV 52 E	23052 CCK/W33	
	260	330	190	39	-	Tr 260x4	M 6	4.2	21	OH 3152 H	HM 52 T	MB 52	HMV 52 E	23152 CCK/W33, 22252 CACK/W33	
	260	310	190	34	46	Tr 260x4	M 6	4.2	17.7	OH 3152 HTL	HM 3052	MS 3052-48	HMV 52 E	C 3152 K	
	260	330	211	39	-	Tr 260x4	M 6	4.2	23	OH 2352 H	HM 52 T	MB 52	HMV 52 E	23252 CCK/W33, 22352 CACK/W33	
	260	310	190	34	46	Tr 260x4	M 6	4.2	17.7	OH 3152 HTL	HM 3052	MS 3052-48	HMV 52 E	C 3152 K	
260	280	330	121	38	50	Tr 280x4	M 6	4.2	15.3	OH 3956 H	HM 3056	MS 3056	HMV 56 E	23956 CCK/W33	
	280	330	152	38	50	Tr 280x4	M 6	4.2	16	OH 3056 H	HM 3056	MS 3056	HMV 56 E	23056 CCK/W33, C 3056 K	
	280	350	195	41	-	Tr 280x4	M 6	4.2	23	OH 3156 H	HM 56 T	MB 56	HMV 56 E	23156 CCK/W33, 22256 CACK/W33	
	280	330	195	38	50	Tr 280x4	M 6	4.2	19.3	OH 3156 HTL	HM 3056	MS 3056	HMV 56 E	C 3156 K	
	280	350	224	41	-	Tr 280x4	M 6	4.2	27	OH 2356 H	HM 56 T	MB 56	HMV 56 E	23256 CACK/W33, 22356 CCK/W33	
	280	330	195	38	50	Tr 280x4	M 6	4.2	19.3	OH 3156 HTL	HM 3056	MS 3056	HMV 56 E	C 3156 K	
280	300	360	140	42	54	Tr 300x4	M 6	4.2	20	OH 3960 H	HM 3060	MS 3060	HMV 60 E	23960 CCK/W33	
	300	360	168	42	54	Tr 300x4	M 6	4.2	20.5	OH 3060 H	HM 3060	MS 3060	HMV 60 E	23060 CCK/W33, C 3060 K	
	300	380	208	40	53	Tr 300x4	M 6	4.2	29	OH 3160 H	HM 3160	MS 3160	HMV 60 E	23160 CCK/W33, 22260 CACK/W33, C 3160 K	
	300	380	240	40	53	Tr 300x4	M 6	4.2	32	OH 3260 H	HM 3160	MS 3160	HMV 60 E	23260 CACK/W33	
300	320	380	140	42	55	Tr 320x5	M 6	4	21.5	OH 3964 H	HM 3064	MS 3068-64	HMV 64 E	23964 CACK/W33	
	320	380	171	42	55	Tr 320x5	M 6	4	22	OH 3064 H	HM 3064	MS 3068-64	HMV 64 E	23064 CCK/W33, C 3064 KM	
	320	400	226	42	56	Tr 320x5	M 6	4	32	OH 3164 H	HM 3164	MS 3164	HMV 64 E	23164 CCK/W33, 22264 CACK/W33, C 3164 KM	
	320	400	258	42	56	Tr 320x5	M 6	4	35	OH 3264 H	HM 3164	MS 3164	HMV 64 E	23264 CACK/W33	
320	340	400	144	45	58	Tr 340x5	M 6	4	24.5	OH 3968 H	HM 3068	MS 3068-64	HMV 68 E	23968 CCK/W33	
	340	400	187	45	58	Tr 340x5	M 6	4	27	OH 3068 H	HM 3068	MS 3068-64	HMV 68 E	23068 CCK/W33, C3068 KM	
	340	440	254	55	72	Tr 340x5	M 6	4	50	OH 3168 H	HM 3168	MS 3172-68	HMV 68 E	23168 CCK/W33, C 3168 KM	
	340	440	288	55	72	Tr 340x5	M 6	4	51.5	OH 3268 H	HM 3168	MS 3172-68	HMV 68 E	23268 CCK/W33	
340	360	420	144	45	58	Tr 360x5	M 6	4	25.2	OH 3972 H	HM 3072	MS 3072	HMV 72 E	23972 CACK/W33	
	360	420	144	45	58	Tr 360x5	M 6	4	25.2	OH 3972 HE	HME 3072	MS 3072	HMV 72 E	C 3972 KM	
	360	420	188	45	58	Tr 360x5	M 6	4	29	OH 3072 H	HM 3072	MS 3072	HMV 72 E	23072 CCK/W33, C3072 KM	
	360	460	259	58	75	Tr 360x5	M 6	4	56	OH 3172 H	HM 3172	MS 3172-68	HMV 72 E	23172 CACK/W33, C 3172 KM	
	360	460	299	58	75	Tr 360x5	M 6	4	60.5	OH 3272 H	HM 3172	MS 3172-68	HMV 72 E	23272 CACK/W33	
360	380	450	164	48	62	Tr 380x5	M 6	4	31.5	OH 3976 H	HM 3076	MS 3080-76	HMV 76 E	23976 CCK/W33, C3976 KMB	
	380	450	193	48	62	Tr 380x5	M 6	4	35.5	OH 3076 H	HM 3076	MS 3080-76	HMV 76 E	23076 CCK/W33, C 3076 KM	
	380	490	264	60	77	Tr 380x5	M 6	4	61.5	OH 3176 H	HM 3176	MS 3176	HMV 76 E	23176 CCK/W33	
	380	490	310	60	77	Tr 380x5	M 6	4	69.5	OH 3276 H	HM 3176	MS 3176	HMV 76 E	23276 CACK/W33	
380	400	470	168	52	66	Tr 400x5	M 6	4	35	OH 3980 H	HM 3080	MS 3080-76	HMV 80 E	23980 CACK/W33	
	400	470	210	52	66	Tr 400x5	M 6	4	40	OH 3080 H	HM 3080	MS 3080-76	HMV 80 E	23080 CCK/W33, C 3080 KM	
	400	520	272	62	82	Tr 400x5	M 6	4	73	OH 3180 H	HM 3180	MS 3184-80	HMV 80 E	23180 CCK/W33	
	400	520	328	62	82	Tr 400x5	M 6	4	87	OH 3280 H	HM 3180	MS 3184-80	HMV 80 E	23280 CACK/W33	
400	420	490	168	52	66	Tr 420x5	M 6	4	36	OH 3984 H	HM 3084	MS 3084	HMV 84 E	23984 CACK/W33	
	420	490	168	52	66	Tr 420x5	M 6	4	36	OH 3984 HE	HME 3084	MS 3084	HMV 84 E	C 3984 KM	
	420	490	212	52	66	Tr 420x5	M 6	4	47	OH 3084 H	HM 3084	MS 3084	HMV 84 E	23084 CCK/W33, C 3084 KM	
	420	540	304	70	90	Tr 420x5	M 6	4	80	OH 3184 H	HM 3184	MS 3184-80	HMV 84 E	23184 CCK/W33, C 3184 KM	
	420	540	352	70	90	Tr 420x5	M 6	4	96	OH 3284 H	HM 3184	MS 3184-80	HMV 84 E	23284 CACK/W33	
	420	490	168	52	66	Tr 420x5	M 6	4	36	OH 3984 H	HM 3084	MS 3084	HMV 84 E	23984 CACK/W33	

For OH .. HE sleeves not listed in the table, please contact SKF

Metric Sleeves

d 410 - 710 mm



Dimensions										Mass	Designations Adapter sleeve with nut and locking device	Lock nut	Locking device	Appropriate hydraulic nut	bearing(s)
d ₁	d	d ₃	B ₁	B ₂	B ₃	G	G ₁	A							
mm										kg	-				
410	440	520	189	60	77	Tr 440x5	M 8	6.5	58	OH 3988 H	HM 3088	MS 3092-88	HMV 88 E	23988 CACK/W33	
	440	520	228	60	77	Tr 440x5	M 8	6.5	65	OH 3088 H	HM 3088	MS 3092-88	HMV 88 E	23088 CAK/W33	
	440	560	307	70	90	Tr 440x5	M 8	6.5	95	OH 3188 H	HM 3188	MS 3192-88	HMV 88 E	23188 CAK/W33	
	440	560	361	70	90	Tr 440x5	M 8	6.5	117	OH 3288 H	HM 3188	MS 3192-88	HMV 88 E	23288 CAK/W33	
430	460	540	189	60	77	Tr 460x5	M 8	6.5	60	OH 3992 H	HM 3092	MS 3092-88	HMV 92 E	23992 CAK/W33	
	460	540	234	60	77	Tr 460x5	M 8	6.5	71	OH 3092 H	HM 3092	MS 3092-88	HMV 92 E	23092 CAK/W33, C 3092 KM	
	460	580	326	75	95	Tr 460x5	M 8	6.5	119	OH 3192 H	HM 3192	MS 3192-88	HMV 92 E	23192 CAK/W33, C 3192 KM	
	460	580	382	75	95	Tr 460x5	M 8	6.5	134	OH 3292 H	HM 3192	MS 3192-88	HMV 92 E	23292 CAK/W33	
450	480	560	200	60	77	Tr 480x5	M 8	6.5	66	OH 3996 H	HM 3096	MS 30/500-96	HMV 96 E	23996 CAK/W33, C 3996 KM	
	480	560	200	60	77	Tr 480x5	M 8	6.5	66	OH 3996 HE	HME 3096	MS 30/500-96	HMV 96 E	C3996 KM	
	480	560	237	60	77	Tr 480x5	M 8	6.5	75	OH 3096 H	HM 3096	MS 30/500-96	HMV 96 E	23096 CAK/W33, C 3096 KM	
	480	620	335	75	95	Tr 480x5	M 8	6.5	135	OH 3196 H	HM 3196	MS 3196	HMV 96 E	23196 CAK/W33	
480	620	397	75	95	Tr 480x5	M 8	6.5	153	OH 3296 H	HM 3196	MS 3196	HMV 96 E	23296 CAK/W33		
470	500	580	208	68	85	Tr 500x5	M 8	6.5	74.3	OH 39/500 H	HM 30/500	MS 30/500-96	HMV 100 E	239/500 CAK/W33	
	500	580	208	68	85	Tr 500x5	M 8	6.5	74.3	OH 39/500 HE	HME 30/500	MS 30/500-96	HMV 100 E	C 39/500 KM	
	500	580	247	68	85	Tr 500x5	M 8	6.5	82	OH 30/500 H	HM 30/500	MS 30/500-96	HMV 100 E	230/500 CAK/W33, C 30/500 KM	
	500	630	356	80	100	Tr 500x5	M 8	6.5	145	OH 31/500 H	HM 31/500	MS 31/500	HMV 100 E	231/500 CAK/W33, C 31/500 KM	
	500	630	428	80	100	Tr 500x5	M 8	6	170	OH 32/500 H	HM 31/500	MS 31/500	HMV 100 E	232/500 CAK/W33	
500	530	630	216	68	90	Tr 530x6	M 8	6	87.9	OH 39/530 H	HM 30/530	MS 30/600-530	HMV 106 E	239/530 CAK/W33	
	530	630	216	68	90	Tr 530x6	M 8	6	87.9	OH 39/530 HE	HME 30/530	MS 30/600-530	HMV 106 E	C 39/530 KM	
	530	630	265	68	90	Tr 530x6	M 8	6	105	OH 30/530 H	HM 30/530	MS 30/600-530	HMV 106 E	230/530 CAK/W33, C 30/530 KM	
	530	670	364	80	105	Tr 530x6	M 8	6	161	OH 31/530 H	HM 31/530	MS 31/530	HMV 106 E	231/530 CAK/W33, C 31/530 KM	
	530	670	447	80	105	Tr 530x6	M 8	6	192	OH 32/530 H	HM 31/530	MS 31/530	HMV 106 E	232/530 CAK/W33	
530	560	650	227	75	97	Tr 560x6	M 8	6	95	OH 39/560 H	HM 30/560	MS 30/560	HMV 112 E	239/560 CAK/W33	
	560	650	227	75	97	Tr 560x6	M 8	6	95	OH 39/560 HE	HME 30/560	MS 30/560	HMV 112 E	C 39/560 KM	
	560	650	282	75	97	Tr 560x6	M 8	6	112	OH 30/560 H	HM 30/560	MS 30/560	HMV 112 E	230/560 CAK/W33, C 30/560 KM	
	560	710	377	85	110	Tr 560x6	M 8	6	185	OH 31/560 H	HM 31/560	MS 31/600-560	HMV 112 E	231/560 CAK/W33	
	560	710	462	85	110	Tr 560x6	M 8	6	219	OH 32/560 H	HM 31/560	MS 31/600-560	HMV 112 E	232/560 CAK/W33	
560	600	700	239	75	97	Tr 600x6	G 1/8	8	127	OH 39/600 HE	HME 30/600	MS 30/600-530	HMV120	C 39/600KM	
	600	700	239	75	97	Tr 600x6	G 1/8	8	127	OH 39/600 H	HM 30/600	MS 30/600-530	HMV 120	239/600 CAK/W33	
	600	700	289	75	97	Tr 600x6	G 1/8	8	147	OH 30/600 H	HM 30/600	MS 30/600-530	HMV 120	230/600 CAK/W33, C 30/600 KM	
	600	750	399	85	110	Tr 600x6	G 1/8	8	234	OH 31/600 H	HM 31/600	MS 31/600-560	HMV 120	231/600 CAK/W33	
	600	750	487	85	110	Tr 600x6	G 1/8	8	278	OH 32/600 H	HM 31/600	MS 31/600-560	HMV 120	232/600 CAK/W33	
600	630	730	254	75	97	Tr 630x6	M 8	6	124	OH 39/630 H	HM 30/630	MS 30/630	HMV 126 E	239/630 CAK/W33	
	630	730	254	75	97	Tr 630x6	M 8	6	124	OH 39/630 HE	HME 30/630	MS 30/630	HMV 126 E	C 39/630 KM	
	630	730	301	75	97	Tr 630x6	M 8	6	138	OH 30/630 H	HM 30/630	MS 30/630	HMV 126 E	230/630 CAK/W33, C 30/630 KM	
	630	800	424	95	120	Tr 630x6	M 8	6	254	OH 31/630 H	HM 31/630	MS 31/630	HMV 126 E	231/630 CAK/W33	
630	670	780	264	80	102	Tr 670x6	G 1/8	8	162	OH 39/670 H	HM 30/670	MS 30/670	HMV 134 E	239/670 CAK/W33, C 39/670 KM	
	670	780	324	80	102	Tr 670x6	G 1/8	8	190	OH 30/670 H	HM 30/670	MS 30/670	HMV 134 E	230/670 CAK/W33, C 30/670 KM	
	670	850	456	106	131	Tr 670x6	G 1/8	8	340	OH 31/670 H	HM 31/670	MS 31/670	HMV 134 E	231/670 CAK/W33	
	670	850	558	106	131	Tr 670x6	G 1/8	8	401	OH 32/670 H	HM 31/670	MS 31/670	HMV 134 E	232/670 CAK/W33	
670	710	830	286	90	112	Tr 710x7	G 1/8	8	183	OH 39/710 H	HM 30/710	MS 30/710	HMV 142 E	239/710 CAK/W33	
	710	830	286	90	112	Tr 710x7	G 1/8	8	183	OH 39/710 HE	HME 30/710	MS 30/710	HMV 142 E	C 39/710 KM	
	710	830	342	90	112	Tr 710x7	G 1/8	8	228	OH 30/710 H	HM 30/710	MS 30/710	HMV 142 E	230/710 CAK/W33, C 30/710 KM	
	710	900	467	106	135	Tr 710x7	G 1/8	8	392	OH 31/710 H	HM 31/710	MS 31/710	HMV 142 E	231/710 CAK/W33	
	710	900	572	106	135	Tr 710x7	G 1/8	8	459	OH 32/710 H	HM 31/710	MS 31/710	HMV 142 E	232/710 CAK/W33	
710	750	870	291	90	112	Tr 750x7	G 1/8	8	211	OH 39/750 H	HM 30/750	MS 30/800-750	HMV 150 E	239/750 CAK/W33	
	750	870	291	90	112	Tr 750x7	G 1/8	8	211	OH 39/750 HE	HME 30/750	MS 30/800-750	HMV 150 E	C 39/750 KM	
	750	870	356	90	112	Tr 750x7	G 1/8	8	246	OH 30/750 H	HM 30/750	MS 30/800-750	HMV 150 E	230/750 CAK/W33	
	750	950	493	112	141	Tr 750x7	G 1/8	8	451	OH 31/750 H	HM 31/750	MS 31/800-750	HMV 150 E	231/750 CAK/W33	
	750	950	603	112	141	Tr 750x7	G 1/8	8	526	OH 32/750 H	HM 31/750	MS 31/800-750	HMV 150 E	232/750 CAK/W33	

For OH .. HE sleeves not listed in the table, please contact SKF

Metric Sleeves

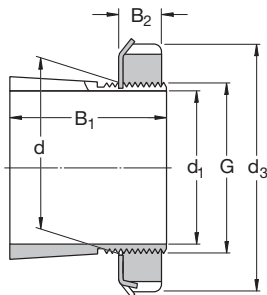
d 750 - 1 000 mm

Dimensions										Mass	Designations Adapter sleeve with nut and locking device	Lock nut	Locking device	Appropriate hydraulic nut	bearing(s)
d ₁	d	d ₃	B ₁	B ₂	B ₃	G	G ₁	A							
mm										kg	–				
750	800	920	303	90	112	Tr 800x7	G 1/8	10	259	OH 39/800 H	HM 30/800	MS 30/800-750	HMV 160 E	239/800 CAK/W33	
	800	920	303	90	112	Tr 800x7	G 1/8	10	259	OH 39/800 HE	HME 30/800	MS 30/800-750	HMV 160 E	C 39/800 KM	
	800	920	366	90	112	Tr 800x7	G 1/8	10	302	OH 30/800 H	HM 30/800	MS 30/800-750	HMV 160 E	230/800 CAK/W33	
	800	1 000	505	112	141	Tr 800x7	G 1/8	10	535	OH 31/800 H	HM 31/800	MS 31/800-750	HMV 160 E	231/800 CAK/W33	
800	850	980	308	90	115	Tr 850x7	G 1/8	10	288	OH 39/850 H	HM 30/850	MS 30/900-850	HMV 170 E	239/850 CAK/W33	
	850	980	308	90	115	Tr 850x7	G 1/8	10	288	OH 39/850 HE	HME 30/850	MS 30/900-850	HMV 170 E	C 39/850 KM	
	850	980	380	90	115	Tr 850x7	G 1/8	10	341	OH 30/850 H	HM 30/850	MS 30/900-850	HMV 170 E	230/850 CAK/W33	
	850	1 060	536	118	147	Tr 850x7	G 1/8	10	616	OH 31/850 H	HM 31/850	MS 31/850	HMV 170 E	231/850 CAK/W33	
850	900	1 030	326	100	125	Tr 900x7	G 1/8	10	330	OH 39/900 H	HM 30/900	MS 30/900-850	HMV 180 E	239/900 CAK/W33	
	900	1 030	326	100	125	Tr 900x7	G 1/8	10	330	OH 39/900 HE	HME 30/900	MS 30/900-850	HMV 180 E	C 39/900 KMB	
	900	1 030	400	100	125	Tr 900x7	G 1/8	10	387	OH 30/900 H	HM 30/900	MS 30/900-850	HMV 180 E	230/900 CAK/W33	
	900	1 120	557	125	154	Tr 900x7	G 1/8	10	677	OH 31/900 H	HM 31/900	MS 31/900	HMV 180 E	231/900 CAK/W33	
900	950	1 080	344	100	125	Tr 950x8	G 1/8	10	363	OH 39/950 H	HM 30/950	MS 30/950	HMV 190 E	239/950 CAK/W33	
	950	1 080	420	100	125	Tr 950x8	G 1/8	10	424	OH 30/950 H	HM 30/950	MS 30/950	HMV 190 E	230/950 CAK/W33	
	950	1 170	583	125	154	Tr 950x8	G 1/8	10	738	OH 31/950 H	HM 31/950	MS 31/950	HMV 190 E	231/950 CAK/W33	
950	1 000	1 140	358	100	125	Tr 1000x8	G 1/8	10	407	OH 39/1000 H	HM 30/1000	MS 30/1000	HMV 200 E	239/1000 CAK/W33	
	1 000	1 140	430	100	125	Tr 1000x8	G 1/8	10	470	OH 30/1000 H	HM 30/1000	MS 30/1000	HMV 200 E	230/1000 CAK/W33	
	1 000	1 240	609	100	154	Tr 1000x8	G 1/8	10	842	OH 31/1000 H	HM 31/1000	MS 31/1000	HMV 200 E	231/1000 CAK/W33	
1 000	1 060	1 200	372	100	125	Tr 1060x8	G 1/8	12	490	OH 39/1060 H	HM 30/1060	MS 30/1000	HMV 212 E	239/1060 CAK/W33	
	1 060	1 200	447	100	125	Tr 1060x8	G 1/8	12	571	OH 30/1060 H	HM 30/1060	MS 30/1000	HMV 212 E	230/1060 CAK/W33	
	1 060	1 300	622	125	154	Tr 1060x8	G 1/8	12	984	OH 31/1060 H	HM 31/1060	MS 31/1000	HMV 212 E	231/1060 CAK/W33	

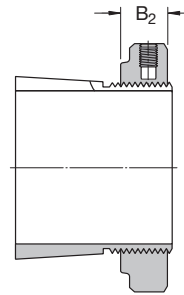
For OH .. HE sleeves not listed in the table, please contact SKF

Inch Sleeves

d 3/4 - 17/16 in



HA, HE, HS



HA .. E, HE .. E, HS .. E

Dimensions						Mass	Designations		Locking device	Appropriate hydraulic nut	bearing(s)	
d ₁	d	d ₃	B ₁	B ₂	G		Adapter sleeve with nut and locking device	Lock nut				
in	mm					kg	–					
3/4	19.05	25	38	26	8	M 25x1.5	0.07	HE 205	KM 5	MB 5	-	1205 EK
		25	38	29	8	M 25x1.5	0.08	HE 305	KM 5	MB 5	-	2205 EK, 1305 EK
		25	38	29	10.5	M 25x1.5	0.088	HE 305 E	KMFE 5	-	-	C2205 K
		25	38	35	8	M 25x1.5	0.09	HE 2305	KM 5	MB 5	-	2305 K
7/8	22.225	30	45	27	8	M 30x1.5	0.11	HS 206	KM 6	MB 6	-	1206 EK
		30	45	31	8	M 30x1.5	0.12	HS 306	KM 6	MB 6	-	2206 EK, 1306 EK
15/16	23.813	30	45	27	8	M 30x1.5	0.1	HA 206	KM 6	MB 6	-	1206 EK
		30	45	31	8	M 30x1.5	0.12	HA 306	KM 6	MB 6	-	2206 EK
		30	45	31	10.5	M 30x1.5	0.13	HA 306 E	KMFE 6	-	-	C 2206 K
		30	45	38	8	M 30x1.5	0.13	HA 2306	KM 6	MB 6	-	2306 K
1	25.4	30	45	27	8	M 30x1.5	0.08	HE 206	KM 6	MB 6	-	1206 EK
		30	45	31	8	M 30x1.5	0.1	HE 306	KM 6	MB 6	-	2206 EK, 1306 EK
		30	45	31	10.5	M 30x1.5	0.11	HE 306 E	KMFE 6	-	-	C 2206 K
		30	45	38	8	M 30x1.5	0.11	HE 2306	KM 6	MB 6	-	2306 K
1 1/8	28.575	35	52	29	9	M 35x1.5	0.14	HS 207	KM 7	MB 7	-	1207 EK
		35	52	35	9	M 35x1.5	0.16	HS 307	KM 7	MB 7	-	2207 EK, 1307 EK, 22207 EK
		35	52	35	11.5	M 35x1.5	0.17	HS 307 E	KMFE 7	-	-	C 2207 K
1 3/16	30.163	35	52	29	9	M 35x1.5	0.12	HA 207	KM 7	MB 7	-	1207 EK
		35	52	35	9	M 35x1.5	0.14	HA 307	KM 7	MB 7	-	2207 EK, 1307 EK, 22207 EK
		35	52	35	11.5	M 35x1.5	0.15	HA 307 E	KMFE 7	-	-	C 2207 K
		35	52	43	9	M 35x1.5	0.16	HA 2307	KM 7	MB 7	-	2307 EK
1 1/4	31.75	40	58	31	10	M 40x1.5	0.19	HE 208	KM 8	MB 8	-	1208 EK
		40	58	36	10	M 40x1.5	0.22	HE 308	KM 8	MB 8	-	2208 EK, 1308 EK, 22208 EK, 21308 CCK
		40	58	36	13	M 40x1.5	0.19	HE 308 E	KMFE 8	-	-	C 2208 K
		40	58	46	10	M 40x1.5	0.28	HE 2308	KM 8	MB 8	-	2308 EK, 22308 EK
1 3/8	34.925	40	58	31	10	M 40x1.5	0.16	HS 208	KM 8	MB 8	-	1208 EK
		40	58	36	10	M 40x1.5	0.17	HS 308	KM 8	MB 8	-	2208 EK, 1308 EK, 22208 EK, 21308 CCK
1 7/16	36.512	45	65	33	11	M 45x1.5	0.26	HA 209	KM 9	MB 9	-	1209 EK
		45	65	39	11	M 45x1.5	0.29	HA 309	KM 9	MB 9	-	2209 EK, 1309 EK, 22209 EK, 21309 CCK
		45	65	39	13	M 45x1.5	0.31	HA 309 E	KMFE 9	-	-	C 2209 K
		45	65	50	11	M 45x1.5	0.35	HA 2309	KM 9	MB 9	-	2309 EK, 22309 EK

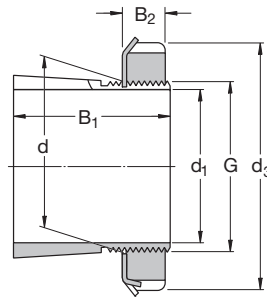
Inch Sleeves

d 1 1/2 - 2 1/8 in

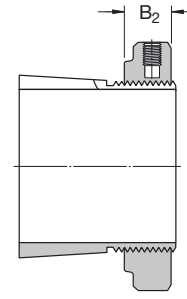
Dimensions						Mass	Designations		Locking device	Appropriate hydraulic nut	bearing(s)	
d ₁	d	d ₃	B ₁	B ₂	G	Adapter sleeve with nut and locking device	Lock nut					
in	mm					kg	–					
1 1/2	38.1	45	65	33	11	M 45x1.5	0.2	HE 209	KM 9	MB 9	–	1209 EK
		45	65	39	11	M 45x1.5	0.24	HE 309	KM 9	MB 9	–	2209 EK, 1309 EK, 22209 EK, 21309 CCK
		45	65	39	13	M 45x1.5	0.26	HE 309 E	KMFE 9	–	–	C 2209 K
		45	65	50	11	M 45x1.5	0.31	HE 2309	KM 9	MB 9	–	2309 EK, 22309 EK
1 5/8	41.275	50	70	35	12	M 50x1.5	0.31	HS 210	KM 10	MB 10	HMV 10 E	1210 EK
		50	70	42	12	M 50x1.5	0.36	HS 310	KM 10	MB 10	HMV 10 E	2210 EK, 1310 EK, 22210 EK, 21310 CCK
		50	70	55	12	M 50x1.5	0.4	HS 2310	KM 10	MB 10	HMV 10 E	2310 EK, 22310 EK
1 11/16	42.863	50	70	35	12	M 50x1.5	0.28	HA 210	KM 10	MB 10	HMV 10 E	1210 EK
		50	70	42	12	M 50x1.5	0.32	HA 310	KM 10	MB 10	HMV 10 E	2210 EK, 1310 EK, 22210 EK, 21310 CCK
		50	70	42	14	M 50x1.5	0.32	HA 310 E	KMFE 10	–	–	C 2210 K
		50	70	55	12	M 50x1.5	0.4	HA 2310	KM 10	MB 10	HMV 10 E	2310 EK, 22310 EK
1 3/4	44.45	50	70	35	12	M 50x1.5	0.26	HE 210	KM 10	MB 10	HMV 10 E	1210 EK
		50	70	42	12	M 50x1.5	0.29	HE 310	KM 10	MB 10	HMV 10 E	2210 EK, 1310 EK, 22210 EK, 21310 CCK
		50	70	42	14	M 50x1.5	0.29	HE 310 E	KMFE 10	–	–	C 2210 K
		50	70	55	12	M 50x1.5	0.36	HE 2310	KM 10	MB 10	HMV 10 E	2310 EK, 22310 EK
1 7/8	47.625	55	75	37	12.5	M 55x2	0.33	HS 211	KM 11	MB 11	HMV 11 E	1211 EK
		55	75	45	12.5	M 55x2	0.38	HS 311	KM 11	MB 11	HMV 11 E	2211 EK, 1311 EK, 22211 EK, 21311 CCK
1 15/16	49.213	55	75	37	12.5	M 55x2	0.3	HA 211	KM 11	MB 11	HMV 11 E	1211 EK
		55	75	45	12.5	M 55x2	0.34	HA 311	KM 11	MB 11	HMV 11 E	2211 EK, 1311 EK, 22211 EK, 21311 CCK
		55	75	45	14	M 55x2	0.35	HA 311 E	KMFE 11	–	–	C 2211 K
		55	75	59	12.5	M 55x2	0.42	HA 2311	KM 11	MB 11	HMV 11 E	2311 K, 22311 EK
2	50.8	55	75	37	12.5	W 55x1/19	0,26	HE 211 B	HM 11	MB 11	–	1211 EK
		55	75	45	12.5	W 55x1/19	0,29	HE 311 B	HM 11	MB 11	–	2211 EK, 1311 EK, 22211 EK, 21311 CCK
		55	75	45	14	W 55x1/19	0,3	HE 311 BE	KMFE 11 B	–	–	C 2211 K
		55	75	59	12.5	W 55x1/19	0,36	HE 2311 B	HM 11	MB 11	–	2311 K, 22311 EK
2 1/8	53.975	60	80	38	13	M 60x2	0.35	HS 212	KM 12	MB 12	HMV 12 E	1212 EK
		60	80	47	13	M 60x2	0.4	HS 312	KM 12	MB 12	HMV 12 E	2212 EK, 1312 EK, 22212 EK, 21312 CCK
		60	80	47	14	M 60x2	0.41	HS 312 E	KMFE 12	–	–	C 2212 K
		60	80	62	13	M 60x2	0.49	HS 2312	KM 12	MB 12	HMV 12 E	2312 K, 22312 EK

Inch Sleeves

d 2^{3/16} - 2^{11/16} in



HA, HE, HS



HA .. E, HE .. E,

Dimensions						Mass	Designations		Locking device	Appropriate hydraulic nut	bearing(s)	
d ₁	d	d ₃	B ₁	B ₂	G	Adapter sleeve with nut and locking device	Lock nut					
in	mm					kg	–					
2 ^{3/16}	55.563	65	85	40	14	M 65x2	0.49	HA 213	KM 13	MB 13	HMV 13 E	1213 K
		65	85	50	14	M 65x2	0.58	HA 313	KM 13	MB 13	HMV 13 E	2213 EK, 1313 EK, 22213 EK, 21313 CCK
	65	85	50	15	M 65x2	0.59	HA 313 E	KMFE 13	–	HMV 13 E	C 2213 K	
		85	65	14	M 65x2	0.75	HA 2313	KM 13	MB 13	HMV 13 E	2313 K, 22313 EK	
2 ^{1/4}	57.15	65	85	40	14	M 65x2	0.44	HE 213	KM 13	MB 13	HMV 13 E	1213 EK
		65	85	50	14	M 65x2	0.52	HE 313	KM 13	MB 13	HMV 13 E	2213 EK, 1313 EK, 22213 EK, 21313 CCK
	65	85	50	15	M 65x2	0.53	HE 313 E	KMFE 13	–	HMV 13 E	C 2213 E	
		85	65	14	M 65x2	0.65	HE 2313	KM 13	MB 13	HMV 13 E	2313 K, 22313 EK	
2 ^{3/8}	60.325	65	85	40	14	M 65x2	0.44	HS 213	KM 13	MB 13	HMV 13 E	1213 EK
		65	85	50	14	M 65x2	0.71	HS 313	KM 13	MB 13	HMV 13 E	2213 EK, 1313 EK, 22213 EK, 21313 CCK
	65	85	65	14	M 65x2	0.8	HS 2313	KM 13	MB 13	HMV 13 E	2313 K, 22313 EK	
2 ^{7/16}	61.913	75	98	43	15	M 75x2	0.75	HA 215	KM 15	MB 15	HMV 15 E	1215 K
		75	98	55	15	M 75x2	0.91	HA 315	KM 15	MB 15	HMV 15 E	2215 EK, 1315 EK, 22215 EK, 21315 CCK
	75	98	55	16	M 75x2	0.93	HA 315 E	KMFE 15	–	HMV 15 E	C 2215 K	
		98	73	15	M 75x2	1.15	HA 2315	KM 15	MB 15	HMV 15 E	2315 K, 22315 EK, C 2315 K	
2 ^{1/2}	63.5	75	98	43	15	M 75x2	0.7	HE 215	KM 15	MB 15	HMV 15 E	1215 K
		75	98	55	15	M 75x2	0.85	HE 315	KM 15	MB 15	HMV 15 E	2215 K, 1315 K, 22215 EK, 21315 CCK
	75	98	55	16	M 75x2	0.87	HE 315 E	KMFE 15	–	HMV 15 E	C 2215 K	
		98	73	15	M 75x2	1.09	HE 2315	KM 15	MB 15	HMV 15 E	2315 K, 22315 EK, C 2315 K, C 2315 K	
2 ^{5/8}	66.675	75	98	43	15	M 75x2	0.7	HS 215	KM 15	MB 15	HMV 15 E	1215 K
		75	98	55	15	M 75x2	0.71	HS 315	KM 15	MB 15	HMV 15 E	2215 EK, 1315 EK, 22215 EK, 21315 CCK
	75	98	73	15	M 75x2	0.9	HS 2315	KM 15	MB 15	HMV 15 E	2315 K, 22315 EK, C 2315 K	
2 ^{11/16}	68.263	80	105	46	17	M 80x2	0.87	HA 216	KM 16	MB 16	HMV 16 E	1216 K
		80	105	59	17	M 80x2	1.05	HA 316	KM 16	MB 16	HMV 16 E	2216 EK, 1316 EK, 22216 EK, 21316 CCK
	80	105	59	18	M 80x2	1.06	HA 316 E	KMFE 16	–	HMV 16 E	C 2216 K	
		105	78	17	M 80x2	1.3	HA 2316	KM 16	MB 16	HMV 16 E	2316 K, 22316 K, C 2316 K	

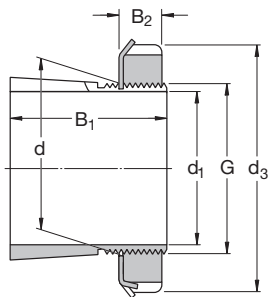
Inch Sleeves

d 2^{3/4} - 3^{1/4} in

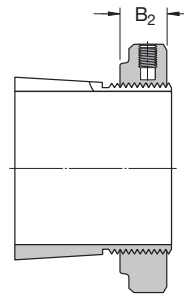
Dimensions						Mass	Designations		Locking device	Appropriate hydraulic nut	bearing(s)	
d ₁	d	d ₃	B ₁	B ₂	G	Adapter sleeve with nut and locking device	Lock nut					
in	mm					kg	–					
2 ^{3/4}	69.85	80	105	46	17	M 80x2	0.81	HE 216	KM 16	MB 16	HMV 16 E	1216 K
		80	105	59	17	M 80x2	0.97	HE 316	KM 16	MB 16	HMV 16 E	2216 EK, 1316 K, 22216 EK, 21316 CCK
		80	105	59	18	M 80x2	0.98	HE 316 E	KMFE 16	–	HMV 16 E	C 2216 K
		80	105	78	17	M 80x2	1.2	HE 2316	KM 16	MB 16	HMV 16 E	2316 K, 22316 EK, C 2316 K
2 ^{15/16}	74.613	85	110	50	18	M 85x2	0.94	HA 217	KM 17	MB 17	HMV 17 E	1217 K
		85	110	63	18	M 85x2	1.1	HA 317	KM 17	MB 17	HMV 17 E	2217 EK, 1317 K, 22217 EK, 21317 CCK
		85	110	63	19	M 85x2	1.19	HA 317 E	KMFE 17	–	HMV 17 E	C 2217 E
		85	110	82	18	M 85x2	1.4	HA 2317	KM 17	MB 17	HMV 17 E	2317 K, 22317 EK, C 2317 K
3	76.2	85	110	50	18	M 85x2	0.87	HE 217	KM 17	MB 17	HMV 17 E	1217 K
		85	110	63	18	M 85x2	1	HE 317	KM 17	MB 17	HMV 17 E	2217 K, 1317 K, 22217 EK, 21317 CCK
		85	110	63	19	M 85x2	0.99	HE 317 E	KMFE 17	–	HMV 17 E	C 2217 K
		85	110	82	18	M 85x2	1.3	HE 2317	KM 17	MB 17	HMV 17 E	2317 K, 22317 EK, C 2317 K
3 ^{3/16}	80.963	90	120	52	18	M 90x2	1.05	HA 218	KM 18	MB 18	HMV 18 E	1218 K
		90	120	65	18	M 90x2	1.25	HA 318	KM 18	MB 18	HMV 18 E	2218 K, 1318 K, 22218 EK, 21318 CCK
		90	120	65	19	M 90x2	1.26	HA 318 E	KMFE 18	–	HMV 18 E	C 2218 K
		90	120	86	18	M 90x2	1.5	HA 2318	KM 18	MB 18	HMV 18 E	2318 K, 23218-CCK/W33, 22318 EK, C 2318 K
3 ^{1/4}	82.55	90	120	52	18	M 90x2	0.97	HE 218	KM 18	MB 18	HMV 18 E	1218 K
		90	120	65	18	M 90x2	1.1	HE 318	KM 18	MB 18	HMV 18 E	2218 K, 1318 K, 22218 EK, 21318 CCK
		90	120	65	19	M 90x2	1.11	HE 318 E	KMFE 18	–	HMV 18 E	C 2218 K
		90	120	86	18	M 90x2	1.4	HE 2318	KM 18	MB 18	HMV 18 E	2318 K, 23218-CCK/W33, 22318 EK, C2318 K
	95	125	55	19	M 95x2	1.35	HE 219	KM 19	MB 19	HMV 19 E	1219 K	
	95	125	68	19	M 95x2	1.6	HE 319	KM 19	MB 19	HMV 19 E	2219 K, 1319 K, 22219 EK, 21319 CCK	
	95	125	68	20	M 95x2	1.61	HE 319 E	KMFE 19	–	HMV 19 E	C 2219 K	
	95	125	90	19	M 95x2	2	HE 2319	KM 19	MB 19	HMV 19 E	2319 K, 22319 EK, C 2319 K	

Inch Sleeves

d 37/16 - 4 1/4 in



HA, HA .. L, HE, HE .. L



HA .. E, HE .. E,

Dimensions						Mass	Designations		Locking device	Appropriate hydraulic nut	bearing(s)	
d ₁	d	d ₃	B ₁	B ₂	G		Adapter sleeve with nut and locking device	Lock nut				
in	mm					kg	–					
37/16	87.313	100	130	58	20	M 100x2	1.55	HA 220	KM 20	MB 20	HMV 20 E	1220 K
		100	130	71	20	M 100x2	1.8	HA 320	KM 20	MB 20	HMV 20 E	2220 K, 1320 K, 22220 EK, 21320 CCK
		100	130	71	21	M 100x2	1.75	HA 320 E	KMFE 20	–	HMV 20 E	C 2220 K
		100	130	97	20	M 100x2	2.35	HA 2320	KM 20	MB 20	HMV 20 E	2320 K, 23220-CCK/W33, 22320 EK, C2320 K
3 1/2	88.9	100	130	58	20	M 100x2	1.45	HE 220	KM 20	MB 20	HMV 20 E	1220 K
		100	130	71	20	M 100x2	1.75	HE 320	KM 20	MB 20	HMV 20 E	2220 K, 1320 K, 22220 EK, 21320 CCK
		100	130	71	21	M 100x2	1.7	HE 320 E	KMFE 20	–	HMV 20 E	C 2220 K
		100	130	76	20	M 100x2	1.8	HE 3120	KM 20	MB 20	HMV 20 E	23120 CCK/W33
100	130	97	20	M 100x2	2.2	HE 2320	KM 20	MB 20	HMV 20 E	2320 K, 23220-CCK/W33, 22320 EK, C2320 K		
3 15/16	See metric sleeves for d ₁ = 100mm											
4	101.6	110	145	63	21	M 110x2	1.65	HE 222	KM 22	MB 22	HMV 22 E	1222 K
		110	145	77	21	M 110x2	1.9	HE 322	KM 22	MB 22	HMV 22 E	2222 K, 1322 K, 23022 CCK, 22222 EK, 21322 CCK
		110	145	77	21.5	M 110x2	1.85	HE 322 E	KMFE 22	–	HMV 22 E	C 2222 K
		110	145	81	21	M 110x2	2.25	HE 3122	KM 22	MB 22	HMV 22 E	23122 CCK/W33
		110	145	105	21	M 110x2	2.4	HE 2322	KM 22	MB 22	HMV 22 E	2322 K, 23222-CCK/W33, 22322 EK
4 3/16	106.363	120	145	72	22	M 120x2	2.25	HA 3024	KML 24	MBL 24	HMV 24 E	1224 K, 23024-CCK/W33
		120	155	72	26	M 120x2	2.32	HA 3024 E	KMFE 24	–	HMV 24 E	C 3024 K
		120	155	88	22	M 120x2	2.9	HA 3124	KM 24	MB 24	HMV 24 E	2224 K, 23124-CCK/W33
		120	145	88	22	M 120x2	2.6	HA 3124 L	KML 24	MBL 24	HMV 24 E	C 2224 K
		120	155	112	22	M 120x2	3.6	HA 2324	KM 24	MB 24	HMV 24 E	23224 CCK/W33, 22324 CCK/W33
120	145	112	22	M 120x2	3.3	HA 2324 L	KML 24	MBL 24	HMV 24 E	C 3224 K		
4 1/4	107.95	120	145	72	22	M 120x2	2	HE 3024	KML 24	MBL 24	HMV 24 E	1224 K, 23024-CCK/W33, C 3024 KV
		120	155	72	26	M 120x2	2.7	HE 3024 E	KMFE 24	–	HMV 24 E	C 3024 K
		120	155	88	22	M 120x2	2.8	HE 3124	KM 24	MB 24	HMV 24 E	23124 CCK/W33, 22224 EK
		120	155	112	22	M 120x2	3.35	HE 2324	KM 24	MB 24	HMV 24 E	23224 CCK/W33, 22324 CCK/W33
		120	145	112	22	M 120x2	3.05	HE 2324 L	KML 24	MBL 24	HMV 24 E	C 3224 K

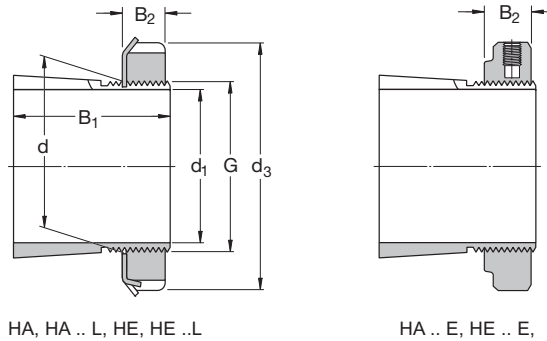
Inch Sleeves

d 4^{7/16} - 5^{1/4} in

Dimensions						Mass	Designations		Locking device	Appropriate hydraulic nut	bearing(s)	
d ₁	d	d ₃	B ₁	B ₂	G	Adapter sleeve with nut and locking device	Lock nut					
in	mm					kg	–					
4 ^{7/16}	112.713	130	155	80	23	M 130x2	3.05	HA 3026	KML 26	MBL 26	HMV 26 E	23026 CCK/W33
		130	165	92	23	M 130x2	3.75	HA 3126	KM 26	MB 26	HMV 26 E	23126 CCK/W33, 22226 EK
		130	155	92	23	M 130x2	3.55	HA 3126 L	KML 26	MBL 26	HMV 26 E	C 2226 K
		130	165	92	28	M 130x2	3.77	HA 3126 E	KMFE 26	–	HMV 26 E	C 2226 K
		130	165	121	23	M 130x2	4.74	HA 2326	KM 26	MB 26	HMV 26 E	23226 CCK/W33, 22326 CCK/W33, C 2326 K
4 ^{1/2}	114.3	130	155	80	23	M 130x2	2.9	HE 3026	KML 26	MBL 26	HMV 26 E	23026 CCK/W33, C 3026 K
		130	165	92	23	M 130x2	3.6	HE 3126	KM 26	MB 26	HMV 26 E	23126 CCK/W33, 22226 EK
		130	155	92	23	M 130x2	3.4	HE 3126 L	KML 26	MBL 26	HMV 26 E	C 2226 K
		130	165	121	23	M 130x2	4.55	HE 2326	KM 26	MB 26	HMV 26 E	23226 CCK/W33, 22326 CCK/W33, C2326 K
4 ^{15/16}	125.413	140	165	82	24	M 140x2	3	HA 3028	KML 28	MBL 28	HMV 28 E	23028 CCK/W33
		140	180	97	24	M 140x2	4.1	HA 3128	KM 28	MB 28	HMV 28 E	23128 CCK/W33, 22228 CCK/W33
		140	165	97	24	M 140x2	4.6	HA 3128 L	KML 28	MBL 28	HMV 28 E	C 2228 K
		140	180	131	24	M 140x2	5.3	HA 2328	KM 28	MB 28	HMV 28 E	23228 CCK/W33, 22328 CCK/W33
5	127	140	165	82	24	M 140x2	2.8	HE 3028	KML 28	MBL 28	HMV 28 E	23028 CCK/W33
		140	180	97	24	M 140x2	3.8	HE 3128	KM 28	MB 28	HMV 28 E	23128 CCK/W33, 22228 CCK/W33
		140	165	97	24	M 140x2	3.3	HE 3128 L	KML 28	MBL 28	HMV 28 E	C 2228 K
		140	180	131	24	M 140x2	5	HE 2328	KM 28	MB 28	HMV 28 E	23228 CCK/W33, 22328 CCK/W33
5 ^{3/16}	131.763	150	180	87	26	M 150x2	4.2	HA 3030	KML 30	MBL 30	HMV 30 E	23030 CCK/W33
		150	195	111	26	M 150x2	5.8	HA 3130	KM 30	MB 30	HMV 30 E	23130 CCK/W33, 22230 CCK/W33
		150	180	111	26	M 150x2	5.3	HA 3130 L	KML 30	MBL 30	HMV 30 E	C 2230 K
		150	195	139	26	M 150x2	7.1	HA 2330	KM 30	MB 30	HMV 30 E	23230 CCK/W33, 22330 CCK/W33
5 ^{1/4}	133.35	150	180	87	26	M 150x2	4	HE 3030	KML 30	MBL 30	HMV 30 E	23030 CCK/W33
		150	195	111	26	M 150x2	5.5	HE 3130	KM 30	MB 30	HMV 30 E	23130 CCK/W33, 22230 CCK/W33
		150	180	111	26	M 150x2	5	HE 3130 L	KML 30	MBL 30	HMV 30 E	C 2230 K
		150	195	139	26	M 150x2	6.8	HE 2330	KM 30	MB 30	HMV 30 E	23230 CCK/W33, 22330 CCK/W33

Inch Sleeves

d 5/16 - 6 1/2 in



Dimensions						Mass	Designations		Locking device	Appropriate hydraulic nut	bearing(s)	
d ₁	d	d ₃	B ₁	B ₂	G	Adapter sleeve with nut and locking device	Lock nut					
in	mm					kg	–					
5/16	138.113	160	190	93	27.5	M 160x3	5.4	HA 3032	KML 32	MBL 32	HMV 32 E	23032 CCK/W33
			210	119	27.5	M 160x3	7.55	HA 3132	KM 32	MB 32	HMV 32 E	23132 CCK/W33, 22232 CCK/W33
		160	210	147	27.5	M 160x3	9.4	HA 2332	KM 32	MB 32	HMV 32 E	23232 CCK/W33, 22332 CCK/W33
			190	147	27.5	M 160x3	8.55	HA 2332 L	KML 32	MBL 32	HMV 32 E	C 3232 K
5/2	139.7	160	190	93	27.5	M 160x3	5.1	HE 3032	KML 32	MBL 32	HMV 32 E	23032 CCK/W33
			210	119	27.5	M 160x3	7.3	HE 3132	KM 32	MB 32	HMV 32 E	23132 CCK/W33, 22232 CCK/W33
		160	190	119	27.5	M 160x3	6.45	HE 3132 L	KML 32	MBL 32	HMV 32 E	C 3132 K
			210	147	27.5	M 160x3	8.8	HE 2332	KM 32	MB 32	HMV 32 E	23232 CCK/W33, 22332 CCK/W33
5 15/16	150.813	170	200	101	28.5	M 170x3	5.7	HA 3034	KML 34	MBL 34	HMV 34 E	23034 CCK/W33, C 3034 K
			220	122	28.5	M 170x3	7.8	HA 3134	KM 34	MB 34	HMV 34 E	23134 CCK/W33, 22234 CCK/W33
		170	200	122	28.5	M 170x3	6.8	HA 3134 L	KML 34	MBL 34	HMV 34 E	C 2234 K
			220	154	28.5	M 170x3	9.6	HA 2334	KM 34	MB 34	HMV 34 E	23234 CCK/W33, 22334 CCK/W33
6	152.4	170	200	101	28.5	M 170x3	5.4	HE 3034	KML 34	MBL 34	HMV 34 E	23034 CCK/W33, C 3034 K
			220	122	28.5	M 170x3	7.55	HE 3134	KM 34	MB 34	HMV 34 E	23134 CCK/W33, 22234 CCK/W33
		170	200	122	28.5	M 170x3	6.6	HE 3134 L	KML 34	MBL 34	HMV 34 E	C 2234 K
			220	154	28.5	M 170x3	9.2	HE 2334	KM 34	MB 34	HMV 34 E	23234 CCK/W33, 22334 CCK/W33
6 7/16	163.513	180	210	109	29.5	M 180x3	6	HA 3036	KML 36	MBL 36	HMV 36 E	23036 CCK/W33, C 3036 K
			230	131	29.5	M 180x3	8.15	HA 3136	KM 36	MB 36	HMV 36 E	23136 CCK/W33, 22236 CCK/W33
		180	210	131	29.5	M 180x3	7.2	HA 3136 L	KML 36	MBL 36	HMV 36 E	C 3136 K
			230	161	29.5	M 180x3	9.9	HA 2336	KM 36	MB 36	HMV 36 E	23236 CCK/W33, 22336 CCK/W33, C 3236 K
6 1/2	165.1	180	210	109	29.5	M 180x3	5.55	HE 3036	KML 36	MBL 36	HMV 36 E	23036 CCK/W33, C 3036 K
			230	131	29.5	M 180x3	7.8	HE 3136	KM 36	MB 36	HMV 36 E	23136 CCK/W33, 22236 CCK/W33
		180	210	131	29.5	M 180x3	6.85	HE 3136 L	KML 36	MBL 36	HMV 36 E	C 3136 K
			230	161	29.5	M 180x3	9.35	HE 2336	KM 36	MB 36	HMV 36 E	23236 CCK/W33, 22336 CCK/W33, C 3236 K

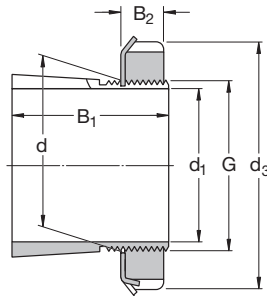
Inch Sleeves

d 6^{3/4} - 7^{3/16} in

Dimensions						Mass	Designations		Locking device	Appropriate hydraulic nut	bearing(s)	
d ₁	d	d ₃	B ₁	B ₂	G	Adapter sleeve with nut and locking device	Lock nut					
in	mm					kg	–					
6 ^{3/4}	171.45	190	220	112	30.5	M 190x3	7.2	HE 3038	KML 38	MBL 38	HMV 38 E	23038 CCK/W33, C3038 K
		190	240	141	30.5	M 190x3	10.2	HE 3138	KM 38	MB 38	HMV 38 E	23138 CCK/W33, 22238 CCK/W33
		190	240	169	30.5	M 190x3	11.7	HE 2338	KM 38	MB 38	HMV 38 E	23238 CCK/W33, 22338 CCK/W33
6 ^{15/16}	176.213	190	220	112	30.5	M 190x3	5.8	HA 3038	KML 38	MBL 38	HMV 38 E	23038 CCK/W33, C 3038 K
		190	240	141	30.5	M 190x3	8.5	HA 3138	KM 38	MB 38	HMV 38 E	23138 CCK/W33, 22238 CCK/W33
		190	240	169	30.5	M 190x3	10	HA 2338	KM 38	MB 38	HMV 38 E	23238 CCK/W33, 22338 CCK/W33
7	177.8	200	240	120	31.5	M 200x3	9.35	HE 3040	KML 40	MBL 40	HMV 40 E	23040 CCK/W33, C 3040 K
		200	250	150	31.5	M 200x3	12.3	HE 3140	KM 40	MB 40	HMV 40 E	23140 CCK/W33, 22240 CCK/W33, C 3140 K
		200	250	176	31.5	M 200x3	14.2	HE 2340	KM 40	MB 40	HMV 40 E	23240 CCK/W33, 22340 CCK/W33
7 ^{3/16}	182.563	200	240	120	31.5	M 200x3	8.25	HA 3040	KML 40	MBL 40	HMV 40 E	23040 CCK/W33, C 3040 K
		200	250	150	31.5	M 200x3	11.2	HA 3140	KM 40	MB 40	HMV 40 E	23140 CCK/W33, 22240 CCK/W33, C 3140 K

Adapter sleeves with inch dimensions

d $\frac{3}{4}$ - $\frac{2}{16}$ in



Dimensions							Mass	Designation	Locknut	Wshr.	Appropriate bearings
d ₁	d	d ₃	B ₁	B ₂	G nom.	T.P.I.					
in.	mm	in.					kg				
$\frac{3}{4}$	25	$\frac{19}{16}$	1.269	0.456	0.969	32	0.10	SNW 5 x $\frac{3}{4}$	N05	W05	1205 EK
$\frac{15}{16}$	30	$\frac{13}{4}$	1.353	0.456	1.173	18	0.10	SNW 6 x $\frac{15}{16}$	N06	W06	1206 EK, 1306 EK
1	30	$\frac{13}{4}$	1.353	0.456	1.173	18	0.10	SNW 6 x 1	N06	W06	1206 EK, 1306 EK
$\frac{11}{8}$	35	$\frac{21}{16}$	1.459	0.487	1.376	18	0.16	SNW 7 x $\frac{11}{8}$	N07	W 07	1207 EK, 1307 EK, 22207 EK
$\frac{13}{16}$	35	$\frac{21}{16}$	1.459	0.487	1.376	18	0.16	SNW 7 x $\frac{13}{16}$	N07	W07	1207 EK, 1307 EK, 22207 EK
$\frac{11}{4}$	35	$\frac{21}{16}$	1.459	0.487	1.376	18	0.16	SNW 7 x $\frac{11}{4}$	N07	W07	1207 EK, 1307 EK, 22207 EK
	40	$\frac{21}{4}$	1.504	0.495	1.563	18	0.19	SNW 8 x $\frac{11}{4}$	N08	W08	1208 EK, 1308 EK, 22208 EK
$\frac{13}{8}$	40	$\frac{21}{4}$	1.504	0.495	1.563	18	0.19	SNW 8 x $\frac{13}{8}$	N08	W08	1208 EK, 1308 EK, 22208 EK
	45	$\frac{217}{32}$	1.584	0.495	1.767	18	0.28	SNW 9 x $\frac{13}{8}$	N09	W09	1209 EK, 1309 EK, 22209 EK, 21309 EK
$\frac{15}{16}$	40	$\frac{21}{4}$	1.504	0.495	1.563	18	0.19	SNW 8 x $\frac{15}{16}$	N08	W08	1208 EK, 1308 EK, 22208 EK
	45	$\frac{217}{32}$	1.584	0.495	1.767	18	0.28	SNW 9 x $\frac{15}{16}$	N09	W09	1209 EK, 1309 EK, 22209 EK, 21309 EK
$\frac{17}{16}$	45	$\frac{217}{32}$	1.584	0.495	1.767	18	0.28	SNW 9 x $\frac{17}{16}$	N09	W09	1209 EK, 1309 EK, 22209 EK, 21309 EK
	45	$\frac{217}{32}$	2.133	0.495	1.767	18	0.32	SNW 109 x $\frac{17}{16}$	N09	W09	2309 EK, 22309 EK
$\frac{11}{2}$	45	$\frac{217}{32}$	2.133	0.495	1.767	18	0.32	SNW 109 x $\frac{11}{2}$	N09	W09	2309 EK, 22309 EK
$\frac{15}{8}$	50	$\frac{211}{16}$	1.765	0.558	1.967	18	0.33	SNW 10 x $\frac{15}{8}$	N10	W10	1210 EK, 1310 EK, 22210 EK, 21310 CCK
$\frac{111}{16}$	50	$\frac{211}{16}$	1.765	0.558	1.967	18	0.33	SNW 10 x $\frac{111}{16}$	N10	W10	1210 EK, 1310 EK, 22210 EK, 21310 CCK
	50	$\frac{211}{16}$	2.394	0.558	1.967	18	0.39	SNW 110 x $\frac{111}{16}$	N10	W10	2310 EK, 22310 EK
$\frac{13}{4}$	50	$\frac{211}{16}$	1.765	0.558	1.967	18	0.33	SNW 10 x $\frac{13}{4}$	N10	W10	1210 EK, 1310 EK, 22210 EK, 21310 CCK
	55	$\frac{231}{32}$	1.845	0.563	2.157	18	0.36	SNW 11 x $\frac{13}{4}$	N11	W11	1211 EK, 1311 EK, 22211 EK, 21311 EK
$\frac{113}{16}$	55	$\frac{231}{32}$	1.845	0.563	2.157	18	0.36	SNW 11 x $\frac{113}{16}$	N11	W11	1211 EK, 1311 EK, 22211 EK, 21311 EK
$\frac{17}{8}$	55	$\frac{231}{32}$	1.845	0.563	2.157	18	0.36	SNW 11 x $\frac{17}{8}$	N11	W11	1211 EK, 1311 EK, 22211 EK, 21311 EK
$\frac{115}{16}$	55	$\frac{231}{32}$	1.845	0.563	2.157	18	0.36	SNW 11 x $\frac{115}{16}$	N11	W11	1211 EK, 1311 EK, 22211 EK, 21311 EK
	55	$\frac{231}{32}$	2.516	0.563	2.157	18	0.43	SNW 111 x $\frac{115}{16}$	N11	W11	2311 K, 22311 EK
2	55	$\frac{231}{32}$	1.845	0.563	2.157	18	0.36	SNW 11 x 2	N11	W11	1211 EK, 1311 EK, 22211 EK, 21311 EK
	55	$\frac{231}{32}$	2.516	0.563	2.157	18	0.43	SNW 111 x 2	N11	W11	2311 K, 22311 EK
	65	$\frac{3}{8}$	2.100	0.625	2.548	18	0.64	SNW 13 x 2	N13	W13	1213 EK, 1313 EK, 22213 EK
$\frac{21}{16}$	60	$\frac{35}{32}$	2.659	0.594	2.360	18	0.73	SNW 112 x $\frac{21}{16}$	N12	W12	2312 K, 22312 EK

* For air handling units, H sleeves should be used.

Threads: American National Form NS Class 3

Adapter sleeves with inch dimensions

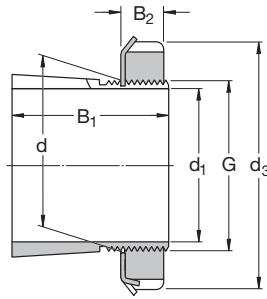
d 2^{3/16} - 3^{15/16} in

Dimensions							Mass	Designation	Locknut	Washer	Appropriate hydraulic nut	Appropriate bearings
d ₁	d	d ₃	B ₁	B ₂	G nom.	T.P.I.						
in.	mm	in.					kg					
2 ^{3/16}	65	3 ^{3/8}	2.100	0.625	2.548	18	0.64	SNW 13 x 2 ^{3/16}	N13	W13		1213 EK, 1313EK, 22213 EK,
	65	3 ^{3/8}	2.771	0.625	2.548	18	0.79	SNW 113 x 2 ^{3/16}	N13	W13		2313 K, 22313 EK
2 ^{1/4}	65	3 ^{3/8}	2.100	0.625	2.548	18	0.64	SNW 13 x 2 ^{1/4}	N13	W13		1213 EK, 1313 EK, 22213 EK
	65	3 ^{3/8}	2.771	0.625	2.548	18	0.79	SNW 113 x 2 ^{1/4}	N13	W13		2313 K, 22313 EK
2 ^{5/16}	65	3 ^{3/8}	2.100	0.625	2.548	18	0.64	SNW 13 x 2 ^{5/16}	N13	W13		1213 EK, 1313EK, 22213 EK,
2 ^{3/8}	75	3 ^{7/8}	2.296	0.665	2.933	12	1.00	SNW 15 x 2 ^{3/8}	AN15	W15		1215 K, 1315 K, 22215 EK
	75	3 ^{7/8}	2.296	0.665	2.933	12	1.00	SNW 15 x 2 ^{7/16}	AN15	W15		1215 K, 1315 K, 22215 EK
2 ^{7/16}	75	3 ^{7/8}	2.296	0.665	2.933	12	1.00	SNW 115 x 2 ^{7/16}	AN15	W15		2315 K, 22315 EK
	75	3 ^{7/8}	3.084	0.665	2.933	12	1.35					
2 ^{11/16}	80	4 ^{5/32}	2.376	0.665	3.137	12	1.10	SNW 16 x 2 ^{11/16}	AN16	W16		1216 K, 1316 K, 22216 EK
	80	4 ^{5/32}	3.204	0.665	3.137	12	1.45	SNW 116 x 2 ^{11/16}	AN16	W16		2316 K, 22316 EK
2 ^{3/4}	80	4 ^{5/32}	2.376	0.665	3.137	12	1.10	SNW 16 x 2 ^{3/4}	AN16	W16		1216 K, 1316 K, 22216 EK
2 ^{15/16}	85	4 ^{13/32}	2.486	0.697	3.340	12	1.30	SNW 17 x 2 ^{15/16}	AN17	W17		1217 K, 1317 K, 22217 EK
	85	4 ^{13/32}	3.312	0.697	3.340	12	1.55	SNW 117 x 2 ^{15/16}	AN17	W17		2317 K, 22317 EK
3	85	4 ^{13/32}	2.486	0.697	3.340	12	1.30	SNW 17 x 3	AN17	W17		1217 K, 1317 K, 22217 EK
	85	4 ^{13/32}	3.312	0.697	3.340	12	1.55	SNW 117 x 3	AN17	W17		2317 K, 22317 EK
3 ^{3/16}	90	4 ^{21/32}	2.646	0.782	3.527	12	1.40	SNW 18 x 3 ^{3/16}	AN18	W18	HMVC 18	1218 K, 1318 K, 22218 EK
	90	4 ^{21/32}	3.553	0.782	3.527	12	1.80	SNW 118 x 3 ^{3/16}	AN18	W18	HMVC 18	2318 K, 23218 CCK/W33, 22318 EK
3 ^{1/4}	90	4 ^{21/32}	2.646	0.782	3.527	12	1.40	SNW 18 x 3 ^{1/4}	AN18	W18	HMVC 18	1218 K, 1318 K, 22218 EK
3 ^{5/16}	95	4 ^{15/16}	2.760	0.813	3.730	12	1.85	SNW 19 x 3 ^{5/16}	AN19	W19	HMVC19	1219 K, 1319 K, 22219 EK
	95	4 ^{15/16}	3.702	0.813	3.730	12	2.20	SNW 119 x 3 ^{5/16}	AN19	W19	HMVC19	23219 CCK/W33, 22319 EK
3 ^{7/16}	100	5 ^{3/16}	2.869	0.844	3.918	12	2.00	SNW 20 x 3 ^{7/16}	AN20	W20	HMVC20	1220 K, 1320 K, 22220 EK
	100	5 ^{3/16}	3.971	0.844	3.918	12	2.85	SNW 120 x 3 ^{7/16}	AN20	W20	HMVC20	23220 CCK/W33, 22320EK
3 ^{1/2}	100	5 ^{3/16}	2.869	0.844	3.918	12	2.00	SNW 20 x 3 ^{1/2}	AN20	W20	HMVC20	1220 K, 1320 K, 22220 EK
	100	5 ^{3/16}	3.971	0.844	3.918	12	2.85	SNW 120 x 3 ^{1/2}	AN20	W20	HMVC20	23220 CCK/W33, 22320EK
3 ^{11/16}	105	5 ^{7/16}	2.987	0.844	4.122	12	2.05	SNW 21 x 3 ^{11/16}	AN21	W21		1321 K
	110	5 ^{23/32}	3.206	0.906	4.325	12	2.25	SNW 22 x 3 ^{11/16}	AN22	W22	HMVC22	1222 K, 1322 K, 22222 EK
3 ^{15/16}	110	5 ^{23/32}	3.206	0.906	4.325	12	2.25	SNW 22 x 3 ^{15/16}	AN22	W22	HMVC22	1222 K, 1322 K, 22222 EK
	110	5 ^{23/32}	4.348	0.906	4.325	12	2.95	SNW 122 x 3 ^{15/16}	AN22	W22	HMVC22	23222 CCK/W33, 22322 EK

Threads: American National Form NS Class 3

Adapter sleeves with inch dimensions

d 4 - 5^{3/4} in



Dimensions							Mass	Designation	Locknut	Washer	Appropriate hydraulic nut	Appropriate bearings
d ₁	d	d ₃	B ₁	B ₂	G nom.	T.P.I.						
in.	mm	in.					kg					
4	110	5 ^{23/32}	3.206	0.906	4.325	12	2.25	SNW 22 x 4	AN22	W22	HMVC 22	1222K, 1322K, 22222EK
4 ^{3/16}	120	5 ^{11/16}	2.947	0.938	4.716	12	2.80	SNW 3024 x 4^{3/16}	N024	W024	HMVC 24	23024 CCK/W33
		5 ^{11/16}	3.466	0.938	4.716	12	2.65	SNW 3124 x 4^{3/16}	NO24	W024	HMVC 24	23124 CCK/W33
		6 ^{1/8}	3.466	0.938	4.716	12	3.00	SNW 24 x 4^{3/16}	AN24	W24	HMVC 24	22224 EK
		6 ^{1/8}	4.648	0.938	4.716	12	3.55	SNW 124 x 4^{3/16}	AN24	W24	HMVC 24	23224 CCK/W33, 22324 CCK/W33
4 ^{1/4}	120	5 ^{11/16}	3.466	0.938	4.716	12	2.65	SNW 3124 x 4^{1/4}	N024	W024	HMVC 24	23124 CCK/W33
		6 ^{1/8}	3.466	0.938	4.716	12	3.00	SNW 24 x 4^{1/4}	AN24	W24	HMVC 24	22224 EK
4 ^{7/16}	130	6 ^{1/8}	3.237	1.00	5.106	12	3.40	SNW 3026 x 4^{7/16}	N026	W026	HMVC 26	23026 CCK/W33
		6 ^{1/8}	3.762	1.00	5.106	12	3.80	SNW 3126 x 4^{7/16}	N026	W026	HMVC 26	23126 CCK/W33
		6 ^{3/4}	3.762	1.00	5.106	12	4.40	SNW 26 x 4^{7/16}	AN26	W26	HMVC 26	22226 EK
		6 ^{3/4}	4.982	1.00	5.106	12	5.65	SNW 126 x 4^{7/16}	AN26	W26	HMVC 26	23226 CCK/W33, 22326 CCK/W33
4 ^{1/2}	130	6 ^{1/8}	3.237	1.00	5.106	12	3.40	SNW 3026 x 4^{1/2}	N026	W026	HMVC 26	23026 CCK/W33
		6 ^{1/8}	3.762	1.00	5.106	12	3.80	SNW 3126 x 4^{1/2}	N026	W026	HMVC 26	23126CCK/W33
		6 ^{3/4}	3.762	1.00	5.106	12	4.40	SNW 26 x 4^{1/2}	AN26	W26	HMVC 26	22226 EK
4 ^{15/16}	140	6 ^{1/2}	3.340	1.063	5.497	12	3.80	SNW 3028 x 4^{15/16}	N028	W028	HMVC 28	23028 CCK/W33
		6 ^{1/2}	3.981	1.063	5.497	12	4.00	SNW 3128 x 4^{15/16}	N028	W028	HMVC 28	23128 CCK/W33
		7 ^{3/32}	3.981	1.063	5.497	12	4.75	SNW 28 x 4^{15/16}	AN28	W28	HMVC 28	22228 CCK/W33
		7 ^{3/32}	5.323	1.063	5.497	12	5.90	SNW 128 x 4^{15/16}	AN28	W28	HMVC 28	23228 CCK/W33, 22328 CCK/W33
5	140	6 ^{1/2}	3.340	1.063	5.497	12	3.85	SNW 3028 x 5	N028	W028	HMVC 28	23028 CCK/W33
		6 ^{1/2}	3.981	1.063	5.497	12	4.00	SNW 3128 x 5	N028	W028	HMVC 28	23128 CCK/W33
		7 ^{3/32}	3.981	1.063	5.497	12	4.75	SNW 28 x 5	AN28	W28	HMVC 28	22228CCK/W33
5 ^{3/16}	150	7 ^{1/8}	3.492	1.094	5.888	12	4.45	SNW 3030 x 5^{3/16}	N030	W030	HMVC 30	23030 CCK/W33
		7 ^{1/8}	4.241	1.094	5.888	12	6.20	SNW 3130 x 5^{3/16}	N030	W030	HMVC 30	23130 CCK/W33
		7 ^{11/16}	4.241	1.125	5.888	12	7.25	SNW 30 x 5^{3/16}	AN30	W30	HMVC 30	22230 CCK/W33
		7 ^{11/16}	5.621	1.125	5.888	12	8.15	SNW 130 x 5^{3/16}	AN30	W30	HMVC 30	23230 CCK/W33, 22330 CCK/W33
5 ^{1/4}	150	7 ^{11/16}	4.241	1.125	5.888	12	7.25	SNW 30 x 5^{1/4}	AN30	W30	HMVC 30	22230 CCK/W33
5 ^{7/16}	160	7 ^{1/2}	3.711	1.156	6.284	8	5.45	SNW 3032 x 5^{7/16}	N032	W032	HMVC 32	23032 CCK/W33
		7 ^{1/2}	4.578	1.156	6.284	8	6.10	SNW 3132 x 5^{7/16}	N032	W032	HMVC 32	23132 CCK/W33
		8 ^{1/16}	4.578	1.187	6.284	8	7.05	SNW 32 x 5^{7/16}	AN32	W32	HMVC 32	22232 CCK/W33
		8 ^{1/16}	5.920	1.187	6.284	8	8.15	SNW 132 x 5^{7/16}	AN32	W32	HMVC 32	23232 CCK/W33, 22332CCK/W33
5 ^{3/4}	160	8 ^{1/16}	4.578	1.187	6.284	8	7.05	SNW 32 x 5^{3/4}	AN32	W32	HMVC 32	22232 CCK/W33

Threads: American National Form NS Class 3

Adapter sleeves with inch dimensions

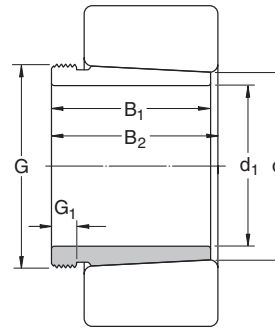
d 5^{15/16} - 8 in

Dimensions								Mass	Designation	Locknut	Washer	Appropriate hydraulic nut	Appropriate bearings
d1	d	d3	B1	B2	G nom.		T.P.I.						
in.	mm	in.						kg					
5 ^{15/16}	170	7 ^{7/8}	4.019	1.188	6.659	8	6.10	SNW 3034 x 5^{15/16}	N034	W034	HMVC 34	23034 CCK/W33	
		7 ^{7/8}	4.847	1.188	6.659	8	7.30	SNW 3134 x 5^{15/16}	N034	W034	HMVC 34	23134 CCK/W33	
		8 ^{21/32}	4.847	1.219	6.659	8	8.85	SNW 34 x 5^{15/16}	AN34	W34	HMVC 34	22234 CCK/W33	
		8 ^{21/32}	6.188	1.219	6.659	8	9.55	SNW 134 x 5^{15/16}	AN34	W34	HMVC 34	23234 CCK/W33, 22334 CCK/W33	
6	170	7 ^{7/8}	4.019	1.188	6.659	8	6.10	SNW 3034 x 6	N034	W034	HMVC 34	23034 CCK/W33	
		7 ^{7/8}	4.847	1.188	6.659	8	7.30	SNW 3134 x 6	N034	W034	HMVC 34	23134 CCK/W33	
		8 ^{21/32}	4.847	1.219	6.659	8	8.85	SNW 34 x 6	AN34	W34	HMVC 34	22234 CCK/W33	
		8 ^{21/32}	6.188	1.219	6.659	8	9.55	SNW 134 x 6	AN34	W34	HMVC 34	23234 CCK/W33, 22334 CCK/W33	
6 ^{7/16}	180	8 ^{1/4}	4.337	1.219	7.066	8	6.80	SNW 3036 x 6^{7/16}	N036	W036	HMVC 36	23036 CCK/W33	
		8 ^{1/4}	5.038	1.219	7.066	8	7.75	SNW 3136 x 6^{7/16}	N036	W036	HMVC 36	23136 CCK/W33	
		9 ^{1/16}	5.038	1.250	7.066	8	9.30	SNW 36 x 6^{7/16}	AN36	W36	HMVC 36	22236 CCK/W33	
		9 ^{1/16}	6.456	1.250	7.066	8	10.0	SNW 136 x 6^{7/16}	AN36	W36	HMVC 36	23236 CCK/W33, 22336 CCK/W33	
6 ^{1/2}	180	8 ^{1/4}	5.038	1.219	7.066	8	7.75	SNW 3136 x 6^{1/2}	N036	W036	HMVC 36	23136 CCK/W33	
		9 ^{1/16}	5.038	1.250	7.066	8	9.30	SNW 36 x 6^{1/2}	AN36	W36	HMVC 36	22236 CCK/W33	
6 ^{15/16}	190	8 ^{11/16}	4.412	1.250	7.472	8	7.50	SNW 3038 x 6^{15/16}	N038	W038	HMVC 38	23038 CCK/W33	
		8 ^{11/16}	5.261	1.250	7.472	8	8.95	SNW 3138 x 6^{15/16}	N038	W038	HMVC 38	23138 CCK/W33	
		9 ^{15/32}	5.261	1.281	7.472	8	10.5	SNW 38 x 6^{15/16}	AN38	W38	HMVC 38	22238 CCK/W33	
		9 ^{15/32}	6.758	1.281	7.472	8	12.5	SNW 138 x 6^{15/16}	AN38	W38	HMVC 38	23238 CCK/W33, 22338 CCK/W33	
7	190	8 ^{11/16}	4.412	1.250	7.472	8	7.50	SNW 3038 x 7	N038	W038	HMVC 38	23038 CCK/W33	
		8 ^{11/16}	5.261	1.250	7.472	8	8.95	SNW 3138 x 7	N038	W038	HMVC 38	23138 CCK/W33	
		9 ^{15/32}	5.261	1.281	7.472	8	10.5	SNW 38 x 7	AN38	W38	HMVC 38	22238 CCK/W33	
		9 ^{15/32}	6.758	1.281	7.472	8	12.5	SNW 138 x 7	AN38	W38	HMVC 38	23238 CCK/W33, 22338 CCK/W33	
7 ^{3/16}	200	9 ^{7/16}	4.750	1.313	7.847	8	8.85	SNW 3040 x 7^{3/16}	N040	W040	HMVC 40	23040 CCK/W33	
		9 ^{7/16}	5.484	1.313	7.847	8	12.9	SNW 3140 x 7^{3/16}	N040	W040	HMVC 40	23140 CCK/W33	
		9 ^{27/32}	5.484	1.344	7.847	8	14.0	SNW 40 x 7^{3/16}	AN40	W40	HMVC 40	22240 CCK/W33	
		9 ^{27/32}	7.095	1.344	7.847	8	16.0	SNW 140 x 7^{3/16}	AN40	W40	HMVC 40	23240 CCK/W33, 22340 CCK/W33	
7 ^{15/16}	220	10 ^{1/4}	5.130	1.375	8.628	8	11.0	SNW 3044 x 7^{15/16}	N044	W044	HMVC 44	23044 CCK/W33	
		10 ^{1/4}	5.901	1.375	8.628	8	12.8	SNW 3144 x 7^{15/16}	N044	W044	HMVC 44	23144 CCK/W33	
		11	5.901	1.406	8.628	8	14.5	SNW 44 x 7^{15/16}	N44	W44	HMVC 44	22244 CCK/W33	
		11	7.287	1.406	8.628	8	21.0	SNW 144 x 7^{15/16}	N44	W44	HMVC 44	23244 CCK/W33, 22344 CCK/W33	
8	220	10 ^{1/4}	5.130	1.375	8.628	8	11.0	SNW 3044 x 8	N044	W044	HMVC 44	23044 CCK/W33	
		10 ^{1/4}	5.901	1.375	8.628	8	12.8	SNW 3144 x 8	N044	W044	HMVC 44	23144 CCK/W33	
		11	5.901	1.406	8.628	8	14.5	SNW 44 x 8	N44	W44	HMVC 44	22244 CCK/W33	

Threads: American National Form NS Class 3

Withdrawal Sleeves

d 35 - 90 mm



d ₁	d	B ₁	B ₂ ¹⁾	G	G ₁	Mass kg	Designations Withdrawal sleeve	Appropriate nut for dismnt.	hydraulic nut	lock nut	locking washer	bearing(s)
35	40	29	32	M 45x1.5	6	0.09	AH 308	KM 9	–	KM 7	MB 7	2208 EK, 1308 EK, 22208 EK, 21308 CCK, C 2208 KTN9, C 2208 KV 2308 EK, 22308 EK
	40	40	43	M 45x1.5	7	0.13	AH 2308	KM 9	–	KM 7	MB 7	
40	45	31	34	M 50x1.5	6	0.12	AH 309	KM 10	HMV 10 E	KM 8	MB 8	2209 EK, 1309 EK, 22209 EK, 21309 EK, C 2209 KTN9, C 2209 KV 2309 EK, 22309 EK
	45	44	47	M 50x1.5	7	0.16	AH 2309	KM 10	HMV 10 E	KM 8	MB 8	
45	50	35	38	M 55x2	7	0.13	AHX 310	KM 11	HMV 11 E	KM 9	MB 9	2210 EK, 1310 EK, 22210 EK, 21310 CCK, C 2210 KTN9, C 2210 KV 2310 K, 22310 K
	50	50	53	M 55x2	9	0.19	AHX 2310	KM 11	HMV 11 E	KM 9	MB 9	
50	55	37	40	M 60x2	7	0.16	AHX 311	KM 12	HMV 12 E	KM 10	MB 10	2211 EK, 1311 EK, 22211 EK, 21311 CCK, C 2211 KTN9, C 2211 KV 2311 K, 22311 EK
	55	54	57	M 60x2	10	0.26	AHX 2311	KM 12	HMV 12 E	KM 10	MB 10	
55	60	40	43	M 65x2	8	0.19	AHX 312	KM 13	HMV 13 E	KM 11	MB 11	2212 EK, 1312 EK, 22212 EK, 21312 CCK, C2212 KTN9, C 2212 KV 2312 K, 22312 EK
	60	58	61	M 65x2	11	0.30	AHX 2312	KM 13	HMV 13 E	KM 11	MB 11	
60	65	42	45	M 70x2	8	0.22	AH 313 G	KM 14	HMV 14 E	KM 12	MB 12	2213 EK, 1313 EK, 22213 EK, 21313 CCK, C 2213 KTN9, C 2212 KV 2313 K, 22313 K
	65	61	64	M 70x2	12	0.36	AH 2313 G	KM 14	HMV 14 E	KM 12	MB 12	
65	70	43	47	M 75x2	8	0.24	AH 314 G	KM 15	HMV 15 E	KM 13	MB 13	22214 EK, 21314 CCK, C2214 KTN9, C 2214 KV
	70	64	68	M 75x2	12	0.42	AHX 2314 G	KM 15	HMV 15 E	KM 13	MB 13	22314 EK, C 2314 K
70	75	45	49	M 80x2	8	0.29	AH 315 G	KM 16	HMV 16 E	KM 14	MB 14	2215 K, 1315 K, 22215 EK, 21315 CCK, C 2215 K, C 2215 KV 2315 K, 22315 K, C 2315 K
	75	68	72	M 80x2	12	0.48	AHX 2315 G	KM 16	HMV 16 E	KM 14	MB 14	
75	80	48	52	M 90x2	8	0.37	AH 316	KM 18	HMV 18 E	KM 15	MB 15	2216 EK, 1316 K, 22216 EK, 21316 CCK, C 2216 K, C 2216 KV 2316 K, 22316 EK, C 2316 K
	80	71	75	M 90x2	12	0.57	AHX 2316	KM 18	HMV 18 E	KM 15	MB 15	
80	85	52	56	M 95x2	9	0.43	AHX 317	KM 19	HMV 19 E	KM 16	MB 16	2217 K, 1317 K, 22217 EK, 21317 CCK, C 2217 K, C 2217 KV 2317 K, 22317 EK, C 2317 K
	85	74	78	M 95x2	13	0.65	AHX 2317	KM 19	HMV 19 E	KM 16	MB 16	
85	90	53	57	M 100x2	9	0.46	AHX 318	KM 20	HMV 20 E	KM 17	MB 17	2218 K, 1318 K, 22218 EK, 21318 CCK, C 2218 K, C 2218 KV 23218 CCK/W33
	90	63	67	M 100x2	10	0.57	AHX 3218	KM 20	HMV 20 E	KM 17	MB 17	
	90	79	83	M 100x2	14	0.76	AHX 2318	KM 20	HMV 20 E	KM 17	MB 17	2318 K, 22318 EK, C 2318 K
90	95	57	61	M 105x2	10	0.54	AHX 319	KM 21	HMV 21 E	KM 18	MB 18	2219 K, 1319 K, 22219 EK, 21319 CCK, C 2219 K
	95	85	89	M 105x2	16	0.9	AHX 2319	KM 21	HMV 21 E	KM 18	MB 18	2319 K, 22319 EK, C 2319 K

¹⁾ Width before the sleeve is pressed into the bearing bore

Withdrawal Sleeves

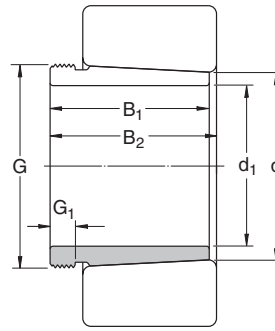
d 95 - 145 mm

d ₁	d	B ₁	B ₂ ¹⁾	G	G ₁	Mass	Designations Withdrawal sleeve	Appropriate nut for dismnt.	hydraulic nut	lock nut	locking washer	bearing(s)
						kg	–					
95	100	59	63	M 110x2	10	0.58	AHX 320	KM 22	HMV 22 E	KM 19	MB 19	2220 K, 1320 K, 22220 EK, 21320 CCK, C 2220 K
	100	64	68	M 110x2	11	0.66	AHX 3120	KM 22	HMV 22 E	KM 19	MB 19	23120 CCK/W33, C 2320 K, C 3120 K, C 3120 KV
	100	73	77	M 110x2	11	0.76	AHX 3220	KM 22	HMV 22 E	KM 19	MB 19	23220 CCK/W33
	100	90	94	M 110x2	16	1.00	AHX 2320	KM 22	HMV 22 E	KM 19	MB 19	2320 K, 22320 EK, C 2320 K
105	110	63	67	M 120x2	12	0.77	AHX 322	KM 24	HMV 24 E	KM 21	MB 21	1322 K
	110	68	72	M 120x2	11	0.76	AHX 3122	KM 24	HMV 24 E	KM 21	MB 21	2222 K, 23122 CCK/W33, 22222 EK, C 3022 K, C 2222 K
	110	82	86	M 120x2	11	1.00	AHX 3222 G	KM 24	HMV 24 E	KM 21	MB 21	23222 CCK/W33
	110	98	102	M 120x2	16	1.30	AHX 2322 G	KM 24	HMV 24 E	KM 21	MB 21	2322 K, 22322 EK
	110	82	91	M 115x2	13	0.71	AH 24122	KM 23	HMV 23 E	KM 21	MB 21	24122 CCK30/W33, C 4122 K30V
115	120	60	64	M 130x2	13	0.73	AHX 3024	KM 26	HMV 26 E	KM 22	MB 22	23024 CCK/W33, C 3024 K, C 3024 KV
	120	75	79	M 130x2	12	0.94	AHX 3124	KM 26	HMV 26 E	KM 22	MB 22	23124 CCK/W33, 22224 EK, C 2224 K
	120	90	94	M 130x2	13	1.30	AHX 3224 G	KM 26	HMV 26 E	KM 22	MB 22	23224 CCK/W33, C 3224K
	120	105	109	M 130x2	17	1.55	AHX 2324 G	KM 26	HMV 26 E	KM 22	MB 22	22324 CCK/W33
	120	73	82	M 125x2	13	0.7	AH 24024	KM 25	HMV 25 E	KM 22	MB 22	24024 CCK30/W33, C 4024 K30V
	120	93	102	M 130x2	13	1.00	AH 24124	KM 26	HMV 26 E	KM 22	MB 22	24124 CCK30/W33, C 4124 K30V
125	130	67	71	M 140x2	14	0.91	AHX 3026	KM 28	HMV 28 E	KM 24	MB 24	23026 CCK/W33, C 3026 K
	130	78	82	M 140x2	12	1.10	AHX 3126	KM 28	HMV 28 E	KM 24	MB 24	23126 CCK/W33, 22226 EK, C 2226 K
	130	98	102	M 140x2	15	1.50	AHX 3226 G	KM 28	HMV 28 E	KM 24	MB 24	23226 CCK/W33
	130	115	119	M 140x2	19	1.85	AHX 2326 G	KM 28	HMV 28 E	KM 24	MB 24	22326 CCK/W33
	130	83	93	M 135x2	14	0.90	AH 24026	KM 27	HMV 27 E	KM 24	MB 24	24026 CCK30/W33, C 4026 K30, C 4026 K30V
	130	94	104	M 140x2	14	1.15	AH 24126	KM 28	HMV 28 E	KM 24	MB 24	24126 CCK30/W33, C4126 K30V/VE240
	130	104	109	M 140x2	15	1.15	AH 24126	KM 28	HMV 28 E	KM 24	MB 24	24126 CCK30/W33, C4126 K30V/VE240
135	140	68	73	M 150x2	14	1.00	AHX 3028	KM 30	HMV 30 E	KM 26	MB 26	23028 CCK/W33, C 3028 K, C4026 K30V
	140	83	88	M 150x2	14	1.30	AHX 3128	KM 30	HMV 30 E	KM 26	MB 26	23128 CCK/W33, 22228 EK, C 2228 K
	140	104	109	M 150x2	15	1.75	AHX 3228 G	KM 30	HMV 30 E	KM 26	MB 26	23228 CCK/W33
	140	125	130	M 150x2	20	2.25	AHX 2328 G	KM 30	HMV 30 E	KM 26	MB 26	22328 CCK/W33
	140	83	93	M 145x2	14	0.95	AH 24028	KM 29	HMV 29 E	KM 26	MB 26	24028 CCK30/W33, C 4028 K30V
145	150	72	77	M 160x3	15	1.15	AHX 3030	KM 32	HMV 32 E	KM 28	MB 28	23030 CCK/W33, C 3030 KMB
	150	96	101	M 160x3	15	1.70	AHX 3130 G	KM 32	HMV 32 E	KM 28	MB 28	23130 CCK/W33, 22230 CCK/W33, C 3130 K, C 2230 K
	150	114	119	M 160x3	17	2.10	AHX 3230 G	KM 32	HMV 32 E	KM 28	MB 28	23230 CCK/W33
	150	135	140	M 160x3	24	2.75	AHX 2330 G	KM 32	HMV 32 E	KM 28	MB 28	22330 CCK/W33
	150	90	101	M 155x3	15	1.05	AH 24030	KM 31	HMV 31 E	KM 28	MB 28	24030 CCK30/W33, C 4030 K30V
	150	115	126	M 160x3	15	1.55	AH 24130	KM 32	HMV 32 E	KM 28	MB 28	24130 CCK30/W33, C 4130 K30V
	150	115	126	M 160x3	15	1.55	AH 24130	KM 32	HMV 32 E	KM 28	MB 28	24130 CCK30/W33, C 4130 K30V
	150	115	126	M 160x3	15	1.55	AH 24130	KM 32	HMV 32 E	KM 28	MB 28	24130 CCK30/W33, C 4130 K30V

¹⁾ Width before the sleeve is pressed into the bearing bore

Withdrawal Sleeves

d 150 - 190 mm

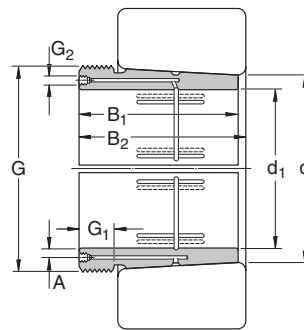


d ₁	d	B ₁	B ₂ ¹⁾	G	G ₁	Mass	Designations	Appropriate	hydraulic	lock	locking	bearing(s)	
						kg	Withdrawal sleeve	nut for dismnt.	nut	nut	washer		
150	160	77	82	M 170x3	16	2.00	AH 3032	KM 34	HMV 34 E	KM 30	MB 30	23032 CCK/W33, C 3032 K	
	160	103	108	M 170x3	16	3.00	AH 3132 G	KM 34	HMV 34 E	KM 30	MB 30	23132 CCK/W33, 22232 CCK/W33, C 3132 K	
	160	124	130	M 170x3	20	3.70	AH 3232 G	KM 34	HMV 34 E	KM 30	MB 30	23232 CCK/W33, C 3232 K	
	160	140	146	M 170x3	24	4.35	AH 2332 G	KM 34	HMV 34 E	KM 30	MB 30	22332 CCK/W33	
	160	95	106	M 170x3	15	2.30	AH 24032	KM 34	HMV 34 E	KM 30	MB 30	24032 CCK30/W33, C 4032 K30,	
	160	124	135	M 170x3	15	3.00	AH 24132	KM 34	HMV 34 E	KM 30	MB 30	C 4032 K30V 24132 CCK30/W33, C 4132 K30V	
	160	170	85	90	M 180x3	17	2.45	AH 3034	KM 36	HMV 36 E	KM 32	MB 32	23034 CCK/W33, C 3034 K
		170	104	109	M 180x3	16	3.20	AH 3134 G	KM 36	HMV 36 E	KM 32	MB 32	23134 CCK/W33, 22234 CCK/W33, C 3134 K, C 2234 K
		170	134	140	M 180x3	24	4.35	AH 3234 G	KM 36	HMV 36 E	KM 32	MB 32	23234 CCK/W33
		170	146	152	M 180x3	24	4.85	AH 2334 G	KM 36	HMV 36 E	KM 32	MB 32	22334 CCK/W33
170		106	117	M 180x3	16	2.70	AH 24034	KM 36	HMV 36 E	KM 32	MB 32	24034 CCK30/W33, C 4034 K30V	
170		125	136	M 180x3	16	3.25	AH 24134	KM 36	HMV 36 E	KM 32	MB 32	24134 CCK30/W33, C 4134 K30V	
170		180	92	98	M 190x3	17	2.80	AH 3036	KM 38	HMV 38 E	KM 34	MB 34	23036 CCK/W33, C 3036 K
		180	105	110	M 190x3	17	3.40	AH 2236 G	KM 38	HMV 38 E	KM 34	MB 34	22236 CCK/W33
	180	116	122	M 190x3	19	3.90	AH 3136 G	KM 38	HMV 38 E	KM 34	MB 34	23136 CCK/W33, C 3136 K	
	180	140	146	M 190x3	24	4.85	AH 3236 G	KM 38	HMV 38 E	KM 34	MB 34	23236 CCK/W33, C 3236 K	
	180	154	160	M 190x3	26	5.50	AH 2336 G	KM 38	HMV 38 E	KM 34	MB 34	22336 CCK/W33	
	180	116	127	M 190x3	16	3.20	AH 24036	KM 38	HMV 38 E	KM 34	MB 34	24036 CCK30/W33, C 4036 K30V	
	180	134	145	M 190x3	16	3.75	AH 24136	KM 38	HMV 38 E	KM 34	MB 34	24136 CCK30/W33, C 4136 K30V	
	180	190	96	102	M 200x3	18	3.30	AH 3038 G	KM 40	HMV 40 E	KM 36	MB 36	23038 CCK/W33, C 3038 K
190		112	117	M 200x3	18	3.90	AH 2238 G	KM 40	HMV 40 E	KM 36	MB 36	22238 CCK/W33, C 2238 K	
190		125	131	M 200x3	20	4.50	AH 3138 G	KM 40	HMV 40 E	KM 36	MB 36	23138 CCK/W33, C 3138 K	
190		145	152	M 200x3	25	5.40	AH 3238 G	KM 40	HMV 40 E	KM 36	MB 36	23238 CCK/W33	
190		160	167	M 200x3	26	6.10	AH 2338 G	KM 40	HMV 40 E	KM 36	MB 36	22338 CCK/W33	
190		118	131	M 200x3	18	3.55	AH 24038	KM 40	HMV 40 E	KM 36	MB 36	24038 CCK30/W33, C 4038 K30V	
190		146	159	M 200x3	18	4.45	AH 24138	KM 40	HMV 40 E	KM 36	MB 36	24138 CCK30/W33, C 4138 K30V	
190		200	102	108	Tr 210x4	19	3.70	AH 3040 G	HM 42 T	HMV 42 E	KM 38	MB 38	23040 CCK/W33, C 3040 K
	200	134	140	Tr 220x4	21	5.65	AH 3140	HM 3044	HMV 44 E	KM 38	MB 38	23140 CCK/W33, C 3140 K	
	200	153	160	Tr 220x4	25	6.60	AH 3240	HM 3044	HMV 44 E	KM 38	MB 38	23240 CCK/W33	
	200	170	177	Tr 220x4	30	7.60	AH 2340	HM 3044	HMV 44 E	KM 38	MB 38	22340 CCK/W33	
	200	127	140	Tr 210x4	18	4.00	AH 24040	HM 42 T	HMV 42 E	KM 38	MB 38	24040 CCK30/W33, C 4040 K30V	
	200	158	171	Tr 210x4	18	5.05	AH 24140	HM 42 T	HMV 42 E	KM 38	MB 38	24140 CCK30/W33, C 4140 K30V	

¹⁾ Width before the sleeve is pressed into the bearing bore

Withdrawal Sleeves

d 200 - 320 mm

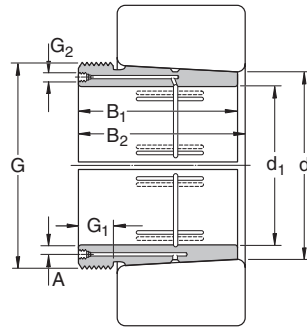


d ₁	d	B ₁	B ₂ ¹⁾	G	G ₁	G ₂	A	Mass	Designations		hydraulic nut	lock nut	locking washer	bearing(s)	
									Withdrawal sleeve	Appropriate nut for dismnt.					
								kg	-						
200	220	111	117	Tr 230x4	20	G 1/8	6.5	7.3	AOH 3044 G	HM 46 T	HMV 46 E	KM 40	MB 40	23044 CCK/W33, C 3044 K	
	220	145	151	Tr 240x4	23	G 1/4	9	9.3	AOH 3144	HM 3048	HMV 48 E	KM 40	MB 40	23144 CCK/W33, C 3144 K	
	220	181	189	Tr 240x4	30	G 1/4	9	13.5	AOH 2344	HM 3048	HMV 48 E	KM 40	MB 40	23244 CCK/W33, 22344 CCK/W33	
	220	130	136	Tr 240x4	20	G 1/4	9	9.40	AOH 2244	HM 3048	HMV 48 E	KM 40	MB 40	22244 CCK/W33, C 2244K	
	220	138	152	Tr 230x4	20	G 1/8	6.5	8.2	AOH 24044	HM 46 T	HMV 46 E	KM 40	MB 40	24044 CCK30/W33, C 4044 K30V	
	220	170	184	Tr 230x4	20	G 1/8	6.5	10	AOH 24144	HM 46 T	HMV 46 E	KM 40	MB 40	24144 CCK30/W33	
	220	240	116	123	Tr 260x4	21	G 1/4	9	7.95	AOH 3048	HM 3052	HMV 52 E	HM 44 T	MB 44	23048 CCK/W33, C 3048 K
		240	154	161	Tr 260x4	25	G 1/4	9	12	AOH 3148	HM 3052	HMV 52 E	HM 44 T	MB 44	23148 CCK/W33, C 3148 K
		240	189	197	Tr 260x4	30	G 1/4	9	14	AOH 2348	HM 3052	HMV 52 E	HM 44 T	MB 44	23248 CCK/W33, 22348 CCK/W33
		240	138	153	Tr 250x4	20	G 1/8	6.5	8.05	AOH 24048	HM 50 T	HMV 50 E	HM 48 T	MB 44	24048 CCK30/W33
240	180	195	Tr 260x4	20	G 1/4	9	11.5	AOH 24148	HM 3052	HMV 52 E	HM 48 T	MB 44	24148 CCK30/W33		
240	260	128	135	Tr 280x4	23	G 1/4	9	9.6	AOH 3052	HM 3056	HMV 56 E	HM 48 T	MB 48	23052 CCK/W33, C 3052 K	
	260	155	161	Tr 280x4	23	G 1/4	9	13.5	AOH 2252 G	HM 3056	HMV 56 E	HM 48 T	MB 48	22252 CCK/W33	
	260	172	179	Tr 280x4	26	G 1/4	9	15.5	AOH 3152 G	HM 3056	HMV 56 E	HM 48 T	MB 48	23152 CCK/W33, C 3152 K	
	260	205	213	Tr 280x4	30	G 1/4	9	19	AOH 2352 G	HM 3056	HMV 56 E	HM 48 T	MB 48	23252 CCK/W33, 22352 CCK/W33	
	260	162	178	Tr 280x4	22	G 1/8	6.5	12.5	AOH 24052 G	HM 3056	HMV 56 E	HM 48 T	MB 48	24052 CCK30/W33	
	260	202	218	Tr 280x4	22	G 1/4	9	14	AOH 24152	HM 3056	HMV 56 E	HM 48 T	MB 48	24152 CCK30/W33	
260	280	131	139	Tr 300x4	24	G 1/4	9	11	AOH 3056	HM 3060	HMV 60 E	HM 52 T	MB 52	23056 CCK/W33, C 3056 K	
	280	155	163	Tr 300x4	24	G 1/4	9	15	AOH 2256 G	HM 3160	HMV 60 E	HM 52 T	MB 52	22256 CCK/W33	
	280	175	183	Tr 300x4	28	G 1/4	9	17	AOH 3156 G	HM 3160	HMV 60 E	HM 52 T	MB 52	23156 CCK/W33, C 3156 K	
	280	212	220	Tr 300x4	30	G 1/4	9	21.5	AOH 2356 G	HM 3160	HMV 60 E	HM 52 T	MB 52	23256 CCK/W33, 22356 CCK/W33	
	280	162	179	Tr 300x4	22	G 1/8	6.5	13.5	AOH 24056 G	HM 3160	HMV 60 E	HM 52 T	MB 52	24056 CCK30/W33	
280	202	219	Tr 300x4	22	G 1/4	9	15	AOH 24156	HM 3160	HMV 60 E	HM 52 T	MB 52	24156 CCK30/W33		
280	300	145	153	Tr 320x5	26	G 1/4	9	13	AOH 3060	HM 3064	HMV 64 E	HM 56 T	MB 56	23060 CCK/W33, C 3060 KM	
	300	170	178	Tr 320x5	26	G 1/4	9	18	AOH 2260 G	HM 3164	HMV 64 E	HM 56 T	MB 56	22260 CCK/W33	
	300	192	200	Tr 320x5	30	G 1/4	9	20.5	AOH 3160 G	HM 3164	HMV 64 E	HM 56 T	MB 56	23160 CCK/W33, C 3160 K	
	300	228	236	Tr 320x5	34	G 1/4	9	23.5	AOH 3260 G	HM 3164	HMV 64 E	HM 56 T	MB 56	23260 CCK/W33	
	300	184	202	Tr 320x5	24	G 1/8	6.5	17	AOH 24060 G	HM 3164	HMV 64 E	HM 56 T	MB 56	24060 CCK30/W33, C 4060 K30M	
	300	224	242	Tr 320x5	24	G 1/4	9	18.5	AOH 24160	HM 3164	HMV 64 E	HM 56 T	MB 56	24160 CCK30/W33	
300	320	149	157	Tr 340x5	27	G 1/4	9	16.5	AOH 3064 G	HM 3068	HMV 68 E	HM 3060	MS 3060	23064 CCK/W33, C 3064 KM	
	320	180	190	Tr 340x5	27	G 1/4	9	20	AOH 2264 G	HM 3168	HMV 68 E	HM 3060	MS 3060	22264 CCK/W33	
	320	209	217	Tr 340x5	31	G 1/4	9	24.5	AOH 3164 G	HM 3168	HMV 68 E	HM 3060	MS 3060	23164 CCK/W33, C 3164 KM	
	320	246	254	Tr 340x5	36	G 1/4	9	27.5	AOH 3264 G	HM 3168	HMV 68 E	HM 3060	MS 3060	23264 CCK/W33	
	320	184	202	Tr 340x5	24	G 1/8	6.5	18	AOH 24064 G	HM 3168	HMV 68 E	HM 3060	MS 3060	24064 CCK30/W33	
320	242	260	Tr 340x5	24	G 1/4	9	20.5	AOH 24164	HM 3168	HMV 68 E	HM 3060	MS 3060	24164 CCK30/W33		
320	340	162	171	Tr 360x5	28	G 1/4	9	19	AOH 3068 G	HM 3072	HMV 72 E	HM 3064	MS 3068-64	23068 CCK/W33 C 3068 KM	
	340	225	234	Tr 360x5	33	G 1/4	9	28.5	AOH 3168 G	HM 3172	HMV 72 E	HM 3064	MS 3068-64	23168 CCK/W33, C 3168 KM	
	340	264	273	Tr 360x5	38	G 1/4	9	32	AOH 3268 G	HM 3172	HMV 72 E	HM 3064	MS 3068-64	23268 CCK/W33	
	340	206	225	Tr 360x5	26	G 1/4	9	18	AOH 24068	HM 3172	HMV 72 E	HM 3064	MS 3068-64	24068 CCK30/W33	
340	269	288	Tr 360x5	26	G 1/4	9	25.5	AOH 24168	HM 3172	HMV 72 E	HM 3064	MS 3068-64	24168 CCK30/W33		

¹⁾ Width before the sleeve is pressed into the bearing bore

Withdrawal Sleeves

d 340 - 440 mm



d ₁	d	B ₁	B ₂ ¹⁾	G	G ₁	G ₂	A	Mass	Designations	Appropriate	hydraulic	lock	locking	bearing(s)
								kg	Withdrawal sleeve	nut for dismt.	nut	nut	washer	
340	360	167	176	Tr 380x5	30	G 1/4	9	21.0	AOH 3072 G	HM 3076	HMV 76 E	HM 3068	MS 3068-64	23072 CCK/W33, C 3072 KM
	360	229	238	Tr 380x5	35	G 1/4	9	30.5	AOH 3172 G	HM 3176	HMV 76 E	HM 3068	MS 3068-64	23172 CCK/W33, C 3172 KM
	360	274	283	Tr 380x5	40	G 1/4	9	35.5	AOH 3272 G	HM 3176	HMV 76 E	HM 3068	MS 3068-64	23272 CAK/W33
	360	206	226	Tr 380x5	26	G 1/4	9	20.0	AOH 24072	HM 3176	HMV 76 E	HM 3068	MS 3068-64	24072 CCK30/W33
	360	269	289	Tr 380x5	26	G 1/4	9	26.0	AOH 24172	HM 3176	HMV 76 E	HM 3068	MS 3068-64	24172 ECCK30/W33
360	380	170	180	Tr 400x5	31	G 1/4	9	22.5	AOH 3076 G	HM 3080	HMV 80 E	HM 3072	MS 3072	23076 CCK/W33, C 3076 KM
	380	232	242	Tr 400x5	36	G 1/4	9	33.0	AOH 3176 G	HM 3180	HMV 80 E	HM 3072	MS 3072	23176 CAK/W33, C 3176 KMB
	380	284	294	Tr 400x5	42	G 1/4	9	42.0	AOH 3276 G	HM 3180	HMV 80 E	HM 3072	MS 3072	23276 CAK/W33
	380	208	228	Tr 400x5	28	G 1/4	9	23.5	AOH 24076	HM 3180	HMV 80 E	HM 3072	MS 3072	24076 CCK30/W33
	380	271	291	Tr 400x5	28	G 1/4	9	31.0	AOH 24176	HM 3180	HMV 80 E	HM 3072	MS 3072	24176 ECAK30/W33
380	400	183	193	Tr 420x5	33	G 1/4	9	26.0	AOH 3080 G	HM 3080	HMV 84 E	HM 3076	MS 3080-76	23080 CCK/W33, C 3080 KM
	400	240	250	Tr 420x5	38	G 1/4	9	36.0	AOH 3180 G	HM 3184	HMV 84 E	HM 3076	MS 3080-76	23180 CAK/W33, C 3180 KMB
	400	302	312	Tr 420x5	44	G 1/4	9	48.0	AOH 3280 G	HM 3184	HMV 84 E	HM 3076	MS 3080-76	23280 CAK/W33
	400	228	248	Tr 420x5	28	G 1/4	9	27.0	AOH 24080	HM 3184	HMV 84 E	HM 3076	MS 3080-76	24080 CACK30/W33
	400	278	298	Tr 420x5	28	G 1/4	9	35.0	AOH 24180	HM 3184	HMV 84 E	HM 3076	MS 3080-76	24180 ECCK30/W33
400	420	186	196	Tr 440x5	34	G 1/4	9	28.0	AOH 3084 G	HM 3088	HMV 88 E	HM 3080	MS 3080-76	23084 CAK/W33, C 3084 KM
	420	266	276	Tr 440x5	40	G 1/4	9	43.0	AOH 3184 G	HM 3188	HMV 88 E	HM 3080	MS 3080-76	23184 CK/W33, C 3184 KM
	420	321	331	Tr 440x5	46	G 1/4	9	54.5	AOH 3284 G	HM 3188	HMV 88 E	HM 3080	MS 3080-76	23284 CAK/W33
	420	230	252	Tr 440x5	30	G 1/4	9	29.0	AOH 24084	HM 3188	HMV 88 E	HM 3080	MS 3080-76	24084 ECAK30/W33
	420	310	332	Tr 440x5	30	G 1/4	9	39.0	AOH 24184	HM 3188	HMV 88 E	HM 3080	MS 3080-76	24184 ECAK30/W33
420	440	194	205	Tr 460x5	35	G 1/4	9	31.0	AOHX 3088 G	HM 3092	HMV 92 E	HM 3084	MS 3084	23088 CAK/W33, C 3088 KMB
	440	270	281	Tr 460x5	42	G 1/4	9	46.0	AOHX 3188 G	HM 3192	HMV 92 E	HM 3084	MS 3084	23188 CAK/W33, C 3188 KMB
	440	330	341	Tr 460x5	48	G 1/4	9	64.5	AOHX 3288 G	HM 3192	HMV 92 E	HM 3084	MS 3084	23288 CAK/W33
	440	242	264	Tr 460x5	30	G 1/4	9	32.0	AOH 24088	HM 3192	HMV 92 E	HM 3084	MS 3084	24088 ECAK30/W33
	440	310	332	Tr 460x5	30	G 1/4	9	45.5	AOH 24188	HM 3192	HMV 92 E	HM 3084	MS 3084	24188 ECAK30/W33
440	460	202	213	Tr 480x5	37	G 1/4	9	34.0	AOHX 3092 G	HM 3096	HMV 96 E	HM 3088	MS 3092-88	23092 CAK/W33, C 3092 KM
	460	285	296	Tr 480x5	43	G 1/4	9	51.5	AOHX 3192 G	HM 3196	HMV 96 E	HM 3088	MS 3092-88	23192 CAK/W33, C 3192 KM
	460	349	360	Tr 480x5	50	G 1/4	9	80.0	AOHX 3292 G	HM 3196	HMV 96 E	HM 3088	MS 3092-88	23292 CAK/W33
	460	250	273	Tr 480x5	32	G 1/4	9	34.5	AOH 24092	HM 3196	HMV 96 E	HM 3088	MS 3092-88	24092 ECAK30/W33
	460	332	355	Tr 480x5	32	G 1/4	9	50.0	AOH 24192	HM 3196	HMV 96 E	HM 3088	MS 3092-88	24192 ECAK30/W33

¹⁾ Width before the sleeve is pressed into the bearing bore

Withdrawal Sleeves

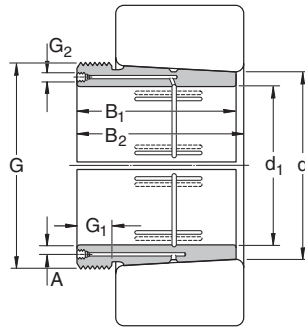
d 460 - 600 mm

d ₁	d	B ₁	B ₂ ¹⁾	G	G ₁	G ₂	A	Mass	Designations Withdrawal sleeve	Appropriate nut for dismnt.	hydraulic nut	lock nut	locking washer	bearing(s)
460	480	205	217	Tr 500x5	38	G 1/4	9	34.0	AOHX 3096 G	HM 30/500	HMV 100 E	HM 3092	MS 3092-88	23096 CAK/W33, C 3096 KM
	480	295	307	Tr 500x5	45	G 1/4	9	63.0	AOHX 3196 G	HM 31/500	HMV 100 E	HM 3092	MS 3092-88	23196 CAK/W33, C 3196 KMB
	480	364	376	Tr 500x5	52	G 1/4	9	81.0	AOHX 3296 G	HM 31/500	HMV 100 E	HM 3092	MS 3092-88	23296 CAK/W33
	480	250	273	Tr 500x5	32	G 1/4	9	36.5	AOH 24096	HM 31/500	HMV 100 E	HM 3092	MS 3092-88	24096 ECAK30/W33
480	480	340	363	Tr 500x5	32	G 1/4	9	51.5	AOH 24196	HM 31/500	HMV 100 E	HM 3092	MS 3092-88	24196 ECAK30/W33
	500	209	221	Tr 530x6	40	G 1/4	9	41.0	AOHX 30/500 G	HM 30/530	HMV 106 E	HM 3096	MS 30/500-96	230/500 CAK/W33, C 30/500 KM
	500	313	325	Tr 530x6	47	G 1/4	9	66.5	AOHX 31/500 G	HM 31/530	HMV 106 E	HM 3096	MS 30/500-96	231/500 CAK/W33, C 31/500 KM
	500	393	405	Tr 530x6	54	G 1/4	9	89.5	AOHX 32/500 G	HM 31/530	HMV 106 E	HM 3096	MS 30/500-96	232/500 CAK/W33
500	500	253	276	Tr 530x6	35	G 1/4	9	43.0	AOH 240/500	HM 31/530	HMV 106 E	HM 3096	MS 30/500-96	240/500 ECAK30/W33
	500	360	383	Tr 530x6	35	G 1/4	9	63.0	AOH 241/500	HM 31/530	HMV 106 E	HM 3096	MS 30/500-96	241/500 ECAK30/W33, C 41/500 K3OMB
	530	230	242	Tr 560x6	45	G 1/4	10	63.5	AOH 30/530	HM 30/560	HMV 112 E	HM 30/500	MS 30/500-96	230/530 CAK/W33, C 30/530 KM
	530	325	337	Tr 560x6	53	G 1/4	10	93.5	AOH 31/530	HM 31/560	HMV 112 E	HM 30/500	MS 30/500-96	231/530 CAK/W33, C 31/530 KM
530	530	412	424	Tr 560x6	57	G 1/4	10	142	AOH 32/530 G	HM 31/560	HMV 112 E	HM 30/500	MS 30/500-96	232/530 CAK/W33
	530	285	309	Tr 560x6	35	G 1/4	9	64.5	AOH 240/530 G	HM 31/560	HMV 112 E	HM 30/500	MS 30/500-96	240/530 ECAK30/W33
	530	370	394	Tr 560x6	35	G 1/4	9	92.0	AOH 241/530 G	HM 31/560	HMV 112 E	HM 30/500	MS 30/500-96	241/530 ECAK30/W33
	560	240	252	Tr 600x6	45	G 1/4	11	73.5	AOHX 30/560	HM 30/600	HMV 120 E	HM 30/530	MS 30/600-530	230/560 CAK/W33, C 30/560 KM
560	560	335	347	Tr 600x6	55	G 1/4	11	107	AOH 31/560	HM 31/600	HMV 120 E	HM 30/530	MS 30/600-530	231/560 CAK/W33, C 31/560 KMB
	560	422	434	Tr 600x6	57	G 1/4	11	143	AOHX 32/560	HM 31/600	HMV 120 E	HM 30/530	MS 30/600-530	232/560 CAK/W33
	560	296	320	Tr 600x6	38	G 1/4	9	71.0	AOH 240/560 G	HM 31/600	HMV 120 E	HM 30/530	MS 30/600-530	240/560 ECAK30/W33
	560	393	417	Tr 600x6	38	G 1/4	9	107	AOH 241/560 G	HM 31/600	HMV 120 E	HM 30/530	MS 30/600-530	241/560 ECAK30/W33
570	600	245	259	Tr 630x6	45	G 1/4	11	77.0	AOHX 30/600	HM 30/630	HMV 126 E	HM 30/560	MS 30/560	230/600 CAK/W33, C 30/600 KM
	600	355	369	Tr 630x6	55	G 1/4	11	120	AOHX 31/600	HM 31/630	HMV 126 E	HM 30/560	MS 30/560	231/600 CAK/W33, C 31/600 KMB
	600	445	459	Tr 630x6	57	G 1/4	11	159	AOHX 32/600 G	HM 31/630	HMV 126 E	HM 30/560	MS 30/560	232/600 CAK/W33
	600	310	336	Tr 630x6	38	G 1/4	9	108	AOHX 240/600	HM 31/630	HMV 126 E	HM 30/560	MS 30/560	240/600 ECAK30/W33
600	600	413	439	Tr 630x6	38	G 1/4	9	120	AOHX 241/600	HM 31/630	HMV 126 E	HM 30/560	MS 30/560	241/600 ECAK30/W33
	630	258	272	Tr 670x6	46	G 1/4	11	88.5	AOH 30/630	HM 30/670	HMV 134 E	HM 30/600	MS 30/600-530	230/630 CAK/W33, C 30/630 KM
	630	375	389	Tr 670x6	60	G 1/4	11	139	AOH 31/630	HM 31/670	HMV 134 E	HM 30/600	MS 30/600-530	231/630 CAK/W33, C 31/630 KMB
	630	475	489	Tr 670x6	63	G 1/4	11	188	AOH 32/630 G	HM 31/670	HMV 134 E	HM 30/600	MS 30/600-530	232/630 CAK/W33
630	630	330	356	Tr 670x6	40	G 1/4	9	101	AOH 240/630 G	HM 31/670	HMV 134 E	HM 30/600	MS 30/600-530	240/630 ECAK30/W33
	630	440	466	Tr 670x6	40	G 1/4	9	139	AOH 241/630 G	HM 31/670	HMV 134 E	HM 30/600	MS 30/600-530	241/630 ECAK30/W33

¹⁾ Width before the sleeve is pressed into the bearing bore

Withdrawal Sleeves

d 630 - 900 mm



d ₁	d	B ₁	B ₂ ¹⁾	G	G ₁	G ₂	A	Mass	Designations Withdrawal sleeve	Appropriate nut for dismnt.	hydraulic nut	lock nut	locking washer	bearing(s)
630	670	280	294	Tr 710x7	50	G 1/4	12	125	AOH 30/670	HM 30/710	HMV 142 E	HM 30/630	MS 30/630	230/670 CAK/W33, C 30/670 KM
	670	395	409	Tr 710x7	59	G 1/4	12	189	AOHX 31/670	HM 31/710	HMV 142 E	HM 30/630	MS 30/630	231/670 CAK/W33, C 31/670 KMB
	670	500	514	Tr 710x7	62	G 1/4	12	252	AOH 32/670 G	HM 31/710	HMV 142 E	HM 30/630	MS 30/630	232/670 CAK/W33
	670	348	374	Tr 710x7	40	G 1/4	12	140	AOH 240/670 G	HM 31/710	HMV 142 E	HM 30/630	MS 30/630	240/670 ECAK30/W33
	670	452	478	Tr 710x7	40	G 1/4	12	180	AOH 241/670	HM 31/710	HMV 142 E	HM 30/630	MS 30/630	241/670 ECAK30/W33
670	710	286	302	Tr 750x7	50	G 1/4	15	138	AOHX 30/710	HM 30/750	HMV 150 E	HM 30/670	MS 30/670	230/710 CAK/W33, C 30/710 KM
	710	405	421	Tr 750x7	60	G 1/4	15	207	AOHX 31/710	HM 31/750	HMV 150 E	HM 30/670	MS 30/670	231/710 CAK/W33, C 31/710 KMB
	710	515	531	Tr 750x7	65	G 1/4	15	278	AOH 32/710 G	HM 31/750	HMV 150 E	HM 30/670	MS 30/670	232/710 CAK/W33
	710	360	386	Tr 750x7	45	G 1/4	12	155	AOH 240/710 G	HM 31/750	HMV 150 E	HM 30/670	MS 30/670	240/710 ECAK30/W33, C 40/710 K30M
	710	483	509	Tr 750x7	45	G 1/4	12	205	AOH 241/710	HM 31/750	HMV 150 E	HM 30/670	MS 30/670	241/710 ECAK30/W33
710	750	300	316	Tr 800x7	50	G 1/4	15	145	AOH 30/750	HM 30/800	HMV 160 E	HM 30/710	MS 30/710	230/750 CAK/W33, C 30/750 KMB
	750	425	441	Tr 800x7	60	G 1/4	15	238	AOH 31/750	HM 31/800	HMV 160 E	HM 30/710	MS 30/710	231/750 CAK/W33, C 31/750 KMB
	750	540	556	Tr 800x7	65	G 1/4	15	320	AOH 32/750	HM 31/800	HMV 160 E	HM 30/710	MS 30/710	232/750 CAK/W33
	750	380	408	Tr 800x7	45	G 1/4	12	178	AOH 240/750 G	HM 31/800	HMV 160 E	HM 30/710	MS 30/710	240/750 ECAK30/W33
	750	520	548	Tr 800x7	45	G 1/4	12	240	AOH 241/750 G	HM 31/800	HMV 160 E	HM 30/710	MS 30/710	241/750 ECAK30/W33
750	800	308	326	Tr 850x7	50	G 1/4	15	204	AOH 30/800	HM 30/850	HMV 170 E	HM 30/750	MS 30/800-750	230/800 CAK/W33, C 30/800 KMB
	800	438	456	Tr 850x7	63	G 1/4	15	305	AOH 31/800	HM 31/850	HMV 170 E	HM 30/750	MS 30/800-750	231/800 CAK/W33, C 31/800 KMB
	800	550	568	Tr 850x7	67	G 1/4	15	401	AOH 32/800	HM 31/850	HMV 170 E	HM 30/750	MS 30/800-750	232/800 CAK/W33
	800	395	423	Tr 850x7	50	G 1/4	15	237	AOH 240/800 G	HM 31/850	HMV 170 E	HM 30/750	MS 30/800-750	240/800 ECAK30/W33
	800	525	553	Tr 850x7	50	G 1/4	15	318	AOH 241/800 G	HM 31/850	HMV 170 E	HM 30/750	MS 30/800-750	241/800 ECAK30/W33
800	850	325	343	Tr 900x7	53	G 1/4	15	230	AOH 30/850	HM 30/900	HMV 180 E	HM 30/800	MS 30/800-750	230/850 CAK/W33, C 30/850 KMB
	850	462	480	Tr 900x7	62	G 1/4	15	345	AOH 31/850	HM 31/900	HMV 180 E	HM 30/800	MS 30/800-750	231/850 CAK/W33, C 31/850 KMB
	850	585	603	Tr 900x7	70	G 1/4	15	461	AOH 32/850	HM 31/900	HMV 180 E	HM 30/800	MS 30/800-750	232/850 CAK/W33
	850	415	445	Tr 900x7	50	G 1/4	15	265	AOH 240/850 G	HM 31/900	HMV 180 E	HM 30/800	MS 30/800-750	240/850 ECAK30/W33
	850	560	600	Tr 900x7	60	G 1/4	15	368	AOH 241/850	HM 31/900	HMV 180 E	HM 30/800	MS 30/800-750	241/850 ECAK30/W33
850	900	335	355	Tr 950x8	55	G 1/4	15	250	AOH 30/900	HM 30/950	HMV 190 E	HM 30/850	MS 30/900-850	230/900 CAK/W33, C 30/900 KM
	900	475	495	Tr 950x8	63	G 1/4	15	379	AOH 31/900	HM 31/950	HMV 190 E	HM 30/850	MS 30/900-850	231/900 CAK/W33
	900	585	605	Tr 950x8	70	G 1/4	15	489	AOH 32/900	HM 31/950	HMV 190 E	HM 30/850	MS 30/900-850	232/900 CAK/W33
	900	430	475	Tr 950x8	55	G 1/4	15	296	AOH 240/900	HM 31/950	HMV 190 E	HM 30/850	MS 30/900-850	240/900 ECAK30/W33
	900	575	620	Tr 950x8	60	G 1/4	15	402	AOH 241/900	HM 31/950	HMV 190 E	HM 30/850	MS 30/900-850	241/900 ECAK30/W33
900	950	355	375	Tr 1000x8	55	G 1/4	15	285	AOH 30/950	HM 30/1000	HMV 200 E	HM 30/900	MS 30/900-850	230/950 CAK/W33, C 30/950 KMB
	950	500	520	Tr 1000x8	62	G 1/4	15	426	AOH 31/950	HM 31/1000	HMV 200 E	HM 30/900	MS 30/900-850	231/950 CAK/W33
	950	600	620	Tr 1000x8	70	G 1/4	15	533	AOH 32/950	HM 31/1000	HMV 200 E	HM 30/900	MS 30/900-850	232/950 CAK/W33
	950	467	512	Tr 1000x8	55	G 1/4	15	340	AOH 240/950	HM 31/1000	HMV 200 E	HM 30/900	MS 30/900-850	240/950 CAK30/W33
	950	605	650	Tr 1000x8	60	G 1/4	15	449	AOH 241/950	HM 31/1000	HMV 200 E	HM 30/900	MS 30/900-850	241/950 CAK30/W33

¹⁾ Width before the sleeve is pressed into the bearing bore

Withdrawal Sleeves

d 950 - 1000 mm

d ₁	d	B ₁	B ₂ ¹⁾	G	G ₁	G ₂	A	Mass	Designations	Withdrawal sleeve	Appropriate nut for dismnt.	hydraulic nut	lock nut	locking washer	bearing(s)
950	1 000	365	387	Tr 1060x8	57	G 1/4	15	318	AOH 30/1000	HM 30/1060	HMV 212 E	HM 30/950	MS 30/950	230/1000 CAKF/W33, C 30/1000 KM	
	1 000	525	547	Tr 1060x8	63	G 1/4	15	485	AOH 31/1000	HM 31/1060	HMV 212 E	HM 30/950	MS 30/950	231/1000 CAKF/W33, C 31/1000 KMB	
	1 000	630	652	Tr 1060x8	70	G 1/4	15	608	AOH 32/1000	HM 31/1060	HMV 212 E	HM 30/950	MS 30/950	232/1000 CAK/W33	
	1 000	469	519	Tr 1060x8	57	G 1/4	15	369	AOH 240/1000	HM 31/1060	HMV 212 E	HM 30/950	MS 30/950	240/1000 CAK30F/W33	
	1 000	645	695	Tr 1060x8	65	G 1/4	15	519	AOH 241/1000	HM 31/1060	HMV 212 E	HM 30/950	MS 30/950	241/1000 ECAK30/W33	
1000	1 060	385	407	Tr 1120x8	60	G 1/4	15	406	AOH 30/1060	HM 30/1120	HMV 224 E	HM 30/1000	MS 30/1000	230/1060 CAKF/W33	
	1 060	540	562	Tr 1120x8	65	G 1/4	15	599	AOH 31/1060	HM 30/1120	HMV 224 E	HM 30/1000	MS 30/1000	231/1060 CAK/W33	
	1 060	498	548	Tr 1120x8	60	G 1/4	15	479	AOH 240/1060	HM 30/1120	HMV 224 E	HM 30/1000	MS 30/1000	240/1060 CAK30F/W33	
	1 060	665	715	Tr 1120x8	65	G 1/4	15	652	AOH 241/1060	HM 30/1120	HMV 224 E	HM 30/1000	MS 30/1000	241/1060 CAK30/W33	

¹⁾ Width before the sleeve is pressed into the bearing bore

Maintenance and lubrication products

SKF develops and markets maintenance tools, lubricants and lubricators to optimize mounting, dismantling and lubrication of bearings. The product assortment includes mechanical tools, heaters, oil injection equipment, instruments, lubricants and lubricators (see the catalogue “SKF Maintenance and Lubrication Products” or online at www.mapro.skf.com).

Mechanical tools

Mechanical tools are used mainly for mounting and dismantling small and medium-sized bearings. The SKF range comprises tools for the installation and removal of bearings and locking devices. The range also contains bearing handling tools for safe and rapid lifting and positioning of bearings up to 500 kg.

Hook and impact spanners

SKF hook spanners have the exact radius to suit the appropriate lock nut. This enables safe and efficient tightening and minimizes the risk of damage to both the nut and shaft.

Impact spanners are made of spheroidal graphite cast iron and have a special impact face to transmit a maximum torque to the nut. Each spanner can be used with several nut sizes.

Lock nut spanners and axial lock nut sockets

To mount SKF self-aligning ball bearings on adapter sleeves in housings, a special bearing lock nut spanner set is available. Using these spanners, the correct tightening angle is easy to achieve and this enables consistently accurate bearing mounting.

Axial lock nut sockets are especially useful if there is insufficient space around the lock nut. They have drive connections suitable for use with power tools or torque wrenches.



Bearing fitting tools

SKF bearing fitting tools enable small bearings to be cold mounted on a shaft. They can also be used to mount bushings, seals and pulleys. The kits consist of impact rings and sleeves and a dead blow hammer.

Jaw pullers

SKF jaw pullers enable a wide range of bearings to be dismantled. One of the puller series, designated TMMA, which design is unique to SKF, incorporates a spring allowing easy opening and closing of the arms, while a special safety solution helps to prevent dangerous overload. A range of hydraulic spindles and rams are also available for increased puller forces. The SKF jaw puller range contains pullers with withdrawal forces up to 500 kN.

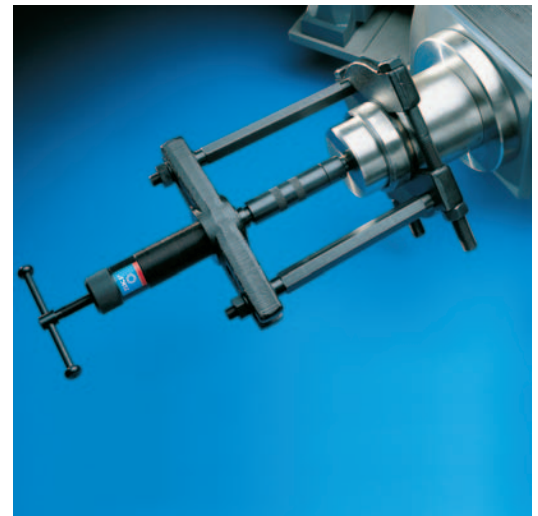
Strong back pullers

SKF strong back pullers are supplied as kits with all necessary accessories to cover the most difficult pulling operations. Strong back pullers consist of either a two or three-piece separable yoke, which when placed behind the bearing makes a “strong back”. The pulling force can be applied using a mechanical spindle, a hydraulic spindle or a hydraulic ram.

Internal and blind pullers

To dismantle a wide range of deep groove ball bearings from blind housing bores quickly and easily, SKF has developed blind housing puller kits. These pullers have hinged arms with specially machined ends so that they fit into the bearing raceway(s), allowing the bearing to be extracted from the housing.

Puller kits for removing bearings from housings, using an internal pull, consist of a number of adjustable collets that can be expanded to fit on the rear side of the bearing bore. A slide hammer arrangement allows large forces to be applied to the bearing in order to remove it.



Bearing heaters

A fast and very efficient way to heat a bearing for mounting is to use an induction heater. These heaters, which only heat metallic components, control bearing temperature safely and accurately, to minimize the risk of bearing damage caused by excessive heat.

Induction heaters

SKF pioneered the use of induction heaters for bearing applications. SKF TIH induction heaters cover a wide range of bearing types and sizes. The smaller heaters are recommended for bearings weighing up to 80 kg while the largest floor model can be used for bearings up to 700 kg.

Large heaters are also suitable for heating smaller bearings, as a power reduction feature is incorporated. SKF induction heaters can be controlled by means of time or temperature. In addition, they feature a bearing heating mode to help prevent damage to bearings through over-heating. At the end of each heating cycle, the bearings are automatically demagnetized.

Portable induction heater

The portable SKF induction heater heats bearings and other components with a bore diameter up to 100 mm and a maximum weight of 5 kg. It uses a patented method of heating based on high frequency induction for optimized efficiency. This truly portable unit weighs just 4.5 kg and is supplied with a heating clamp, temperature probe, power cable and a carrying case.



Hot plates

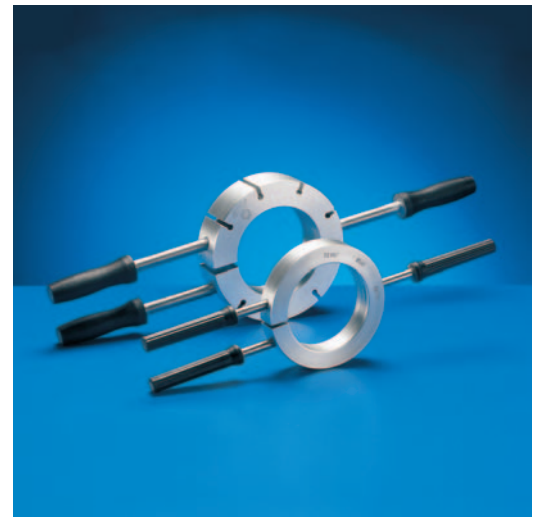
The SKF electric hot plate heats small bearings and other machinery components. It is suitable for bearings with an outside diameter up to approximately 170 mm or with a weight up to 4 kg. A lid for retaining the heat also prevents dirt from entering the bearing.

Heating devices to remove inner rings

A range of special heating devices for removing cylindrical roller bearing inner rings from shafts is available from SKF. Aluminium heating rings are designed for dismantling inner rings of small and medium-size cylindrical roller bearings. Adjustable induction heaters are also available for frequent dismantling of various sizes of cylindrical roller bearing inner rings. Two sizes are available covering raceway diameters from 80 to 170 mm. Non-adjustable induction heaters are designed to suit a particular bearing and application. They are normally used to dismount inner rings of multi-row cylindrical roller bearings.

Gloves

SKF heat resistant gloves specially designed for the handling of heated bearings and other machine components.



Hydraulic tools

A variety of hydraulic tools is available to mount and dismount bearings in a safe and controlled manner. The SKF oil injection method enables easy working while the SKF Drive-up Method provides accurate results.

Hydraulic nuts

HMV .. E type hydraulic nuts enable mounting and dismounting of bearings with tapered bores of 50 mm and above. When compared with mechanical methods, they considerably reduce the time and effort needed to install or remove a bearing. SKF HMV .. E nuts are available with metric or imperial threads or with a plain bore.

SKF HMV .. E nuts, when used in conjunction with SKF pumps fitted with a digital pressure gauge and a dial indicator, allow the full advantages of the SKF Drive-up Method to be realized.



Hydraulic pumps and oil injectors

SKF hand-operated hydraulic pumps can develop pressures up to 150 MPa. They can be supplied with a highly accurate pressure gauge, which allows the SKF Drive-up Method to be employed. All pumps are contained in a sturdy carrying case complete with a hose, quick connection coupling, nipple and mounting fluid.

Oil Injectors can supply oil pressures up to 400 MPa. The SKF range comprises single injectors as well as a number of kits, which contain an injector and a selection of the most common accessories such as an adapter block, high-pressure pipes and nipples.

For large bearings and applications requiring a larger volume of oil, several air-driven portable pumps and injectors providing pressures up to 300 MPa are available.

Hydraulic accessories

To facilitate connections between hydraulic tools and most applications, SKF offers a wide range of accessories including pressure gauges, high pressure pipes, connection nipples and mounting and dismantling fluids.



Instruments

To realize maximum bearing life, it is important to determine the operating condition of machinery and their bearings. With the SKF measuring instrument range, critical environmental conditions can be analysed to achieve optimum bearing performance.

Tachometers

Optical measurement is a safe and reliable technique to determine rotational speed. Using non-contact instruments is often essential to meet industrial safety regulations. SKF provides a range of highly accurate optical tachometers. A range of accessories enables linear and direct contact rotational speeds to be measured.



Thermometers

The temperature of a bearing or bearing housing is a quick and easy indication of the running conditions of the bearing. SKF provides a range of contact and non-contact thermometers from the indispensable ThermoPen up to a highly accurate, advanced dual channel, wide range thermometer. A comprehensive range of temperature probes for a variety of applications is also available.



Electronic stethoscope

The noise of a machine can help indicate troublesome parts such as damaged bearings, valve chatter, tappet noise, piston slap and gear and pump noise. The SKF electronic stethoscope is a hand-held instrument that picks up the noise or vibration from a machine via a probe and helps the user locate the source of the noise.



Oil check monitor

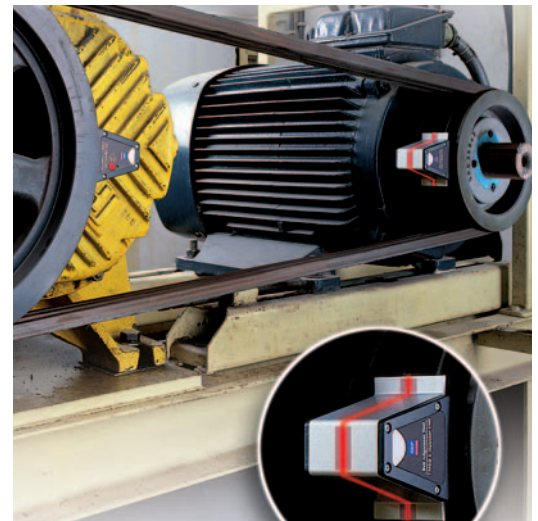
The SKF oil check monitor determines oil condition by analysing the contamination levels and electro-chemical changes in both mineral and synthetic based oils. It was developed originally for engine oils but is suitable for gear and lubrication oils. It can also help to detect water, anti-freeze or metallic particles in an oil sample.

Alignment instruments and shims

SKF has developed laser alignment tools to make the machinery alignment process faster, easier and more reliable. Using the latest laser technology, the SKF shaft alignment tool measures both the parallel and angular alignment of shafts to be connected.

SKF's belt alignment tool aligns the grooves in a pulley rather than the pulley face, facilitating accurate and simultaneous adjustment of belt tension and pulley alignment.

A comprehensive range of pre-cut machinery shims in both metric and inch dimensions is available as well as stainless steel double slot shims for use with many housings.



Lubricants and lubricators

The formulation of all SKF bearing greases is based on extensive research, grease performance testing and field experience.

SKF developed many of the internationally accepted bearing-related grease testing parameters. For correct lubricant application, a range of lubrication equipment is available from SKF.

Greases

SKF offers a range of high quality lubricating greases to suit many bearing applications and conditions. The greases have been developed specifically to meet the needs of rolling bearings and their application conditions. A guide to select the most suitable SKF grease can be found on **pages 328-330**.

Grease guns and pumps

The SKF range also includes grease guns, manual and air-driven grease pumps and grease filler pumps. Grease filler pumps are used to fill grease guns and grease packers from standard SKF grease drums.

Grease meter

The SKF grease meter can accurately measure the volume of grease pumped into a bearing. A wide range of accessories is available.



SYSTEM 24 single point automatic lubricator

SKF SYSTEM 24 is a single point automatic lubricator, pre-filled with SKF grease or oil. Compared with traditional manual relubrication techniques, SKF SYSTEM 24 provides a more accurate control of the quantity of lubricant supplied. It can be set to continuously supply the correct amount of quality lubricant over a given time period, up to a maximum of one year.



DialSet 3.0

The new version of the SKF re-lubrication calculation program has been updated according to the latest lubrication theories published by SKF in the General Catalogue (5000), released in 2003. This program is available on CD-ROM in six languages and suitable for PC's working with MS Windows 95 or later. A web version of the DialSet is currently being developed.



SYSTEM MultiPoint automatic lubricator

SKF SYSTEM MultiPoint is a microprocessor controlled automatic lubricator. Grease can be supplied to up to eight points, using standard SKF grease cartridges. The cartridges assure the user that only clean fresh grease is used. SYSTEM MultiPoint lubricator has been tested and approved for use with all SKF bearing greases.

Oil leveller

The SKF oil levellers are designed for automatic adjustment of the optimal oil level in oil bath lubricated applications. They effectively solve the problem of adjusting the correct oil level during operation or due to leakage rather than just during standstill.



Bearing Greases

Highest quality grease for bearing lubrication

Guarantee of consistent quality as each product is manufactured at one location to the same formulation

A complete product programme for general and specific bearing lubrication requirements

International standardisation of the SKF grease testing methods and equipment



SKF grease for all-important applications

Standard bearing greases

LGMT 2 All purpose bearing grease for a wide range of industrial and automotive applications

- Agricultural equipment
- Automotive wheel bearings
- Conveyors
- Small electric motors

LGMT 3 All purpose bearing grease for a wide range of applications like LGMT 2 where higher consistency is required

- Bearings >100 mm shaft size
- Outer ring rotation
- Vertical shaft applications
- Continuous high ambient temperatures >35 °C
- Propeller shafts

LGEP 2 EP bearing grease for a wide range of industrial and automotive applications

- Pulp and paper making machines
- Jaw crushers
- Traction motors for rail vehicles
- Dam gates

LGLT 2 Low temperature bearing grease for high speed and low noise applications

- Textile spinning spindles
- Machine tool spindles
- Instruments and control equipment
- Small electric motors used in medical and dental equipment

LGHP 2 High performance, wide temperature, long life, high speed polyurea thickened bearing grease

- Electric motors
- Hot fans
- Water pumps
- Rolling bearings in textile, paper processing and drying machines
- Applications with high speed ball bearings operating at medium and high temperatures
- Replaces LGHQ 3

LGFP 2 Food processing bearing grease NSF H1

- Bakery equipment
- Food processing equipment
- Multipack cassette bearings
- Wrapping machines
- Conveyor bearings

Special bearing greases

LGGB 2 Green biodegradable low toxicity bearing grease

- Agricultural and forestry equipment
- Construction and earthmoving equipment
- Mining and conveying equipment
- Water treatment and irrigation
- Turf, lawn, golf equipment
- Locks, dams, bridges
- Linkages, rod ends
- Pleasure craft propellers and shafts
- Other applications where contamination of the environment is a concern

LGWA 2 Wide temperature, long-life bearing grease

- Wheel bearings in cars and trucks
- Washing machines
- Electric motors

LGHB 2 EP bearing grease for high temperature industrial applications

- Steel on steel plain bearings
- Pulp and paper making machines
- Asphalt vibrating screens
- Continuous casting machines
- Sealed spherical roller bearings operating up to 150 °C/300 °F
- Withstands peak temperatures of 200 °C/392 °F

LGET 2 Extreme temperature, high performance, long life, fluorinated bearing grease

- Bakery equipment (ovens)
- Hot fans
- Kiln truck wheels
- Load rollers in copying machines
- Any applications operating under extremely high temperature and/or in aggressive environments

LGEM 2 EP bearing grease with molybdenum disulphide for industrial and heavy equipment

- Rolling element bearings running at low speed and very high loads
- Jaw crushers
- Track laying machines
- Lift mast wheels
- Building machines such as mechanical rams, crane arms, crane hooks

LGEV 2 EP bearing grease with molybdenum disulphide for heavy industrial applications

- Trunnion bearings on rotating drums
- Support and thrust rollers on rotary kilns and dryers
- Bucket wheel excavators
- Slewing ring bearings
- High pressure roller mills

LGWM 1 EP bearing grease for low temperature applications

- Windmills
- Screw conveyors

SKF Bearing Grease Selection

Basic bearing grease selection

Generally use	LGMT 2	All-purpose
Unless:		
Expected bearing temperature continuously > 100 °C/212 °F	LGHP 2	High temperature
Low ambient -50 °C/-58 °F, expected bearing temperature < 50 °C/122 °F	LGLT 2	Low temperature
Shock loads, heavy loads, vibrations	LGEP 2	High load
Food processing industry	LGFP 2	Food processing
Green biodegradable, demands for low toxicity	LGGB 2	Green biodegradable

Note: - For areas with relatively high ambient temperatures, use LGMT 3 instead of LGMT 2
 - For special operating conditions, refer to the range of special SKF bearing greases

Quick bearing grease selection guide

Temp	Speed	Load	Main additional properties	Grease recommended
M	M	M	General purpose for small/medium-sized bearings	LGMT 2
M	M	M	General purpose for larger bearings (or high ambient temp.)	LGMT 3
M	M	M	Food compatible	LGFP 2
M	M	M+H	Biodegradable, low toxicity, EP/anti-wear	LGGB 2
M	L	H	EP/anti-wear, good corrosion inhibition	LGEP 2
M	L	H	EP/anti-wear, good low temperature performance, anti-brinelling	LGWM 1
M	L	H	EP/anti-wear, severe vibrations, anti-brinelling, water resistance	LGHB 2
M	VL	VH	Excellent EP/anti-wear (solid additives), high viscosity	LGEM 2
M	VL	VH	Excellent EP/anti-wear (solid additives), extremely high viscosity	LGEV 2
M	VL	VH	Extremely good EP, anti-brinelling, water resistance	LGHB 2
L	EH	L	Quiet running, very low start-up temperature	LGLT 2
M+H	M+H	M	Excellent corrosion protection, water resistance, long grease life	LGHP 2
H	L+M	H	Extremely good EP, anti-brinelling, water resistance	LGHB 2
H	L+M	M+H	EP/anti-wear, leakage resistant, water resistance	LGWA 2

Bearing operating parameters

Temperature	Load	Speed for ball bearings	Speed for roller bearings
M = Medium -30 to 110 °C/-22 to 230 °F H = High -20 to 130 °C/-4 to 266 °F L = Low -50 to 80 °C/-58 to 176 °F	VH = Very high H = High M = Medium L = Low	EH = Extremely High n.dm over 700.000 VH = Very High n.dm up to 700.000 H = High n.dm up to 500.000 M = Medium n.dm up to 300.000	C/P < 2 C/P = 2-5 C/P = 5-10 C/P > 10 H = High n.dm over 150.000 M = Medium n.dm up to 150.000 L = Low n.dm up to 75.000 VL = Very Low n.dm below 30.000

n.dm= rotational speed, r/min x 0,5 (D+d), mm / Note: For bearing temperatures > 200 °C / 392 °F (up to 260 °C / 500 °F) refer to LGET 2

SKF Bearing Grease Technical Specifications

Technical specifications					
Bearing working conditions	Description	Temperature range	Thickener/ base oil	Base oil viscosity (*1)	Available pack sizes
					Standard bearing greases
LGMT 2	All purpose industrial and automotive	-30/120 °C -22/250 °F	Lithium soap/ mineral oil	110	35, 200 g tube, 420 ml cartridge, 1, 5, 18, 50, 180 kg
LGMT 3	All purpose industrial and automotive	-30/120 °C -22/250 °F	Lithium soap/ mineral oil	120-130	420 ml cartridge, 1, 5, 18, 50, 180 kg
LGEP 2	Extreme pressure	-20/110 °C -4/230 °F	Lithium soap/ mineral oil	200	420 ml cartridge, 1, 5, 18, 50, 180 kg
LGLT 2	Low temperature	-55/110 °C -65/230 °F	Lithium soap/ di-ester oil	15	200 g tube, 1, 180 kg
LGHP 2	High performance polyurea grease	-40/150 °C -40/300 °F	Di-urea/ mineral oil	96	420 ml cartridge, 1, 5, 18, 50, 180 kg SYSTEM 24
LGFP 2	Food compatible	-20/110 °C -4/230 °F	Aluminium complex/ medical white oil	130	420 ml cartridge, 1, 18, 180 kg SYSTEM 24
Special bearing greases					
LGGB 2	Green biodegradable low toxicity	-40/120 °C (*2) -40/250 °F	Lithium-calcium soap/ synthetic ester oil	110	420 ml cartridge 5, 18, 180 kg SYSTEM 24
LGWA 2	Wide temperature (*3)	-30/140 °C -22/284 °F	Lithium complex soap/ mineral oil	185	35, 200 g tube, 420 ml cartridge, 1, 5, 50, 180 kg SYSTEM 24
LGHB 2	EP high viscosity high temperature (*4)	-20/150 °C -4/300 °F	Complex calcium sulphionate/mineral oil	400-450	420 ml cartridge, 5, 18, 50, 180 kg SYSTEM 24
LGET 2	Extreme temperature	-40/260 °C -40/500 °F	PTFE/Synthetic (fluorinated polyether)	400	50 g (25 ml) syringe
LGEM 2	High viscosity plus solid lubricants	-20/120 °C -4/250 °F	Lithium soap/ mineral oil	500	420 ml cartridge, 5, 18, 180 kg SYSTEM 24
LGEV 2	Extremely high viscosity with solid lubricants	-10/120 °C 14/250 °F	Lithium-calcium soap/ mineral oil	1.020	35 g tube, 420 ml cartridge 5, 18, 50, 180 kg
LGWM 1	Extreme pressure low temperature	-30/110 °C -22/230 °F	Lithium soap/ mineral oil	200	420 ml cartridge, 5, 50, 180 kg

(*1) mm^2/s at 40 °C/104 °F = cSt.

(*2) For continuous operation: max. temperatures 90 °C/194 °F

(*3) LGWA 2 can withstand peak temperatures of 220 °C/428 °F

(*4) LGHB 2 can withstand peak temperatures of 200 °C/392 °F

1

12	Self-Aligning Ball Bearing	102
13	Self-Aligning Ball Bearing	102
112	Self-Aligning Ball Bearing	106
130	Self-Aligning Ball Bearing	104
139	Self-aligning ball bearing	104
160(00) Z & 2Z	Single row deep groove ball bearing with shields	45
161(00) Z & 2Z	Single row deep groove ball bearing with shields	44
1726200 and 1726300	Deep groove ball bearing with sphered o/d	245

2

200	Single row deep groove ball bearing with filling slots	58
2200	Self-aligning ball bearing	102
2300	Self-aligning ball bearing	102
213(00)	Spherical roller bearing	166
200 NR	Single row deep groove ball bearing with filling slots & snap ring	59
200 R & RD	MRC single row angular contact ball bearing with 15 degree contact angle (SKF 7200CD type) MRC Engineering catalogue	
200 S	MRC single row deep groove ball bearings (SKF 6200 type) MRC Engineering catalogue	
200 S--C	MRC single row Cartridge design	72
200-Z & 2Z	Single row deep groove ball bearing with filling slots and shields	58
200-ZNR and 2ZNR	Single row deep groove ball bearing with filling slots, shields and snap ring	59
2200-2RS1	Self-aligning ball bearing, sealed	105
222(00) (P.Press pg. 177)	Spherical roller bearing	166
223(00) (P.Press pg. 177)	Spherical roller bearing	166
223(00) VA405	Spherical roller bearing Vibratory type	176
230(00)	Spherical roller bearing	167
230(00)-2CS2	Spherical roller bearing with seals	174
2300-2RS1	Self-aligning ball bearing, sealed	105
231(00) (P. Press pg. 177)	Spherical roller bearing	167
231(00)-2CS2	Spherical roller bearing with seals	174
232(00) (P. Press pg. 177)	Spherical roller bearing	167
232(00)-2CS2	Spherical roller bearing with seals	175
238(00)	Spherical roller bearing	169
239(00)	Spherical roller bearing	168
239(00)-2CS	Spherical roller bearing with seals	175
240(00)	Spherical roller bearing	166
240(00)-2CS	Spherical roller bearing with seals	174
241(00)	Spherical roller bearing	167
241(00)-2CS	Spherical roller bearing with seals	174
248(00)	Spherical roller bearing	171
249(00)	Spherical roller bearing	172
292(00)	Spherical roller thrust bearing	208
293(00)	Spherical roller thrust bearing	208
294(00)	Spherical roller thrust bearing	208

3

300	Single row deep groove ball bearing with filling slots	58
300 R & RD	MRC single row angular contact ball bearings with 15 degree contact angle MRC Engineering catalogue	83
300 S	MRC single row deep groove ball bearings MRC Engineering catalogue	
300-SFFC	Cartridge design	72
300-2Z	Single row deep groove ball bearing with filling slots and shields	58
300-2ZNR	Single row deep groove ball bearing with filling slots, shields and snap ring	59
300-NR	Single row deep groove ball bearing with filling slots and snap ring	59
300-Z	Single row deep groove ball bearing with filling slots and shield	58
300-ZNR	Single row deep groove ball bearing with filling slots, shield and snap ring	59
302(00) (sets pg. 153)	Single row metric taper roller bearing	146
303(00) (sets pg. 153)	Single row metric taper roller bearing	146
3057(00)	Double row cam follower	97
3058(00)	Double row cam follower	97

3194(00) DA-2LSV	Full complement double row cylindrical roller bearing	138
320(00) X (sets pg. 153)	Single row taper roller bearing	146
3200 A	Double row angular contact ball bearing	91
3200 A-2RS1	Double row angular contact ball bearing with seals	93
3200 A-2Z	Double row angular contact ball bearing with shields	93
322(00) (sets pg. 153)	Single row taper roller bearing	146
323(00) (sets pg. 153)	Single row taper roller bearing	146
329(00)	Single row taper roller bearing	150
33(00) A	Double row angular contact ball bearing	91
33(00) A-2RS1	Double row angular contact ball bearing with seals	93
33(00) A-2Z	Double row angular contact ball bearing with shields	93
33(00) D	Double row angular contact ball bearing with split inner ring	91
33(00) DNR	Double row angular contact ball bearing with snap ring groove and snap ring (split inner)	91
330(00) (sets pg. 153)	Single row taper roller bearing	148
331(00) (sets pg. 153)	Single row taper roller bearing	147
332(00) (sets pg. 153)	Single row taper roller bearing	146
3612(00) R	Single row cam roller	67

4

400 R & RD	MRC single row angular contact ball bearing with 15 degree contact angle	85
42(00) A	Double row deep groove ball bearing	66
43(00) A	Double row deep groove ball bearing	66
45(0000), 46(0000)	Printing Press bearings	180
4523(00)	Spherical roller Vibratory type bearings	178
4762(00)	Spherical roller, collar mount bearings for unit blocks	262

5

511(00)	Single direction thrust ball bearing	196
512(00)	Single direction thrust ball bearing	196
513(00)	Single direction thrust ball bearing	196
514(00)	Single direction thrust ball bearing	196
52(00) A	Double row angular contact ball bearing Conrad type As 32(00) A	
52(00) E & 53(00) E	Double row angular contact ball bearing filling slot type	94
522(00), 523(00), 524(00)	Double direction thrust ball bearing	202
532(00), 533(00), 534(00)	Single direction thrust ball bearing	200
5400 A	Double row angular contact ball bearing	92
54420	Double direction thrust ball bearing	204

6

600	Single row deep groove ball bearing	34
600 seals/shields	Single row deep groove ball bearings with shields or seals	43
6000	Single row deep groove ball bearing	34
6000 N & NR	Single row deep groove ball bearing with snap ring groove	55
6000 RSH & 2RSH	Single row deep groove ball bearing with contact seal(s), new version	44
6000 RSL & 2RSL	Single row deep groove ball bearing with light contact seal(s), new version	44
6000/HC5	Single row hybrid deep groove ball bearings Hybrid bearings catalogue	
6000/VA201	Single row deep groove ball bearing for high temperatures Hi-temp catalogue	
6000-2RS1/HC5	Single row hybrid deep groove ball bearing with contact seal(s) Hybrid bearings catalogue	
6000-2RSL/HC5	Single row hybrid deep groove ball bearing with light contact seal(s) Hybrid bearings catalogue	
6000-2RZ	Single row deep groove ball bearing with non contact-seal	44
6000-2RZ/HC5	Single row hybrid deep groove ball bearing with non contact seals Hybrid bearings catalogue	
6000-2Z/VA201	Single row deep groove ball bearing for high temperatures Hi-temp catalogue	

Part number index

6000-2Z/VA208	Single row deep groove ball bearing with shields for high temperatures Hi-temp catalogue	
6000-RS1 & 2RS1	Single row deep groove ball bearing with contact seal(s)	44
6000-Z & 2Z	Single row deep groove ball bearing with shield(s)	44
6000-ZNR & 2ZNR	Single row deep groove ball bearing with shield(s) and snap ring	57
618--	Single row deep groove ball bearing	34
618(00)-2RS1, 2RZ, 2Z	Single row deep groove ball bearing with contact seal	44
619--	Single row deep groove ball bearing	34
619(00)-2RS1, 2RZ, 2Z	Single row deep groove ball bearing with contact seals	44
6200	Single row deep groove ball bearing	34
6200- 2Z-VA208	Single row deep groove ball bearing with shields for high temperatures Hi-temp catalogue	
6200 N & NR	Single row deep groove ball bearing with snap ring groove	55
6200/HC5	Single row hybrid deep groove ball bearing Hybrid bearings catalogue	
6200/VA201 & 2Z/VA201	Single row deep groove ball bearing for high temperatures Hi-temp catalogue	
6200/VL024	Single row deep groove ball bearing with Insocoat® Insocoat® catalogue	
6200-2RS1/HC5	Single row hybrid deep groove ball bearing with contact seal(s) . Hybrid bearings catalogue	
6200-2RSL/HC5	Single row hybrid deep groove ball bearing with light contact seal(s), new version Hybrid bearings catalogue	
6200-2RZ	Single row deep groove ball bearing with non contact-seal	44
6200-2RZ/HC5	Single row hybrid deep groove ball bearing with non contact-seal. . . Hybrid bearings catalogue	
6200-2Z/VA228	Single row deep groove ball bearings with shields for high temperatures Hi-temp catalogue	
6200-RSH & 2RSH	Single row deep groove ball bearing with contact seals	44
6200-RSL & 2RSL	Single row deep groove ball bearing with light contact seal(s), new version	44
6200-Z & 2Z	Single row deep groove ball bearing with shield(s)	44
6200-ZNR	Single row deep groove ball bearing with shield and snap ring	57
622(00)-2RS1	Single row deep groove ball bearing with contact seals	44
623(00)-2RS1	Single row deep groove ball bearing with contact seals	44
628-2Z	Single row deep groove ball bearing with shields	44
630/8-2RS1	Single row deep groove ball bearing with contact seals	44
6300	Single row deep groove ball bearing	34
6300 N & NR	Single row deep groove ball bearing with snap ring groove	55
6300/HC5	Single row hybrid ball bearing . . . Hybrid bearings catalogue	
6300/VL0241	Single row ball deep groove ball bearing with Insocoat® on the outer ring Insocoat® catalogue	
6300/VL2071	Single row deep groove ball bearing with Insocoat® on the bore Insocoat® catalogue	
6300-2A/VA201	Single row deep groove ball bearing with shields for high temperatures Hi-temp catalogue	
6300-2Z/VA208	Single row deep groove ball bearing with shields for high temperatures Hi-temp catalogue	
6300-2Z/VA228	Single row deep groove ball bearing with shields for high temperatures Hi-temp catalogue	
6300-RS1 & 2RS1	Single row deep groove ball bearing with contact seal(s)	44
6300-RSH & 2RSH	Single row deep groove ball bearing with contact seal(s) new version	44
6300-RSL & 2RSL	Single row deep groove ball bearing with light contact seal(s) new version.	44
6300-Z & 2Z	Single row deep groove ball bearing with shield(s)	44
6300-ZNR & 2ZNR	Single row deep groove ball bearing with shield(s) and snap ring	57
6400	Single row deep groove ball bearing	35

7, 8, 9

7200, 7300, 7400 & D	MRC single row angular contact ball bearing with 29 degree contact angle	86
7200 B	Single row angular contact ball bearing 40 degree contact angle.	78
7300 B	Single row angular contact ball bearing 40 degree contact angle.	78
811(00)	Cylindrical roller thrust bearing.	205
812(00)	Cylindrical roller thrust bearing.	205
982(00)	Single row deep groove ball bearings	35

A, B

AH	Withdrawal sleeves.	306
AHX	Withdrawal sleeves.	306
AOH	Withdrawal sleeves for oil injection mounting	309
AOHX	Withdrawal sleeves for oil injection mounting	310
BA	Single direction thrust ball bearing.	196
BS2-22-2CS	Sealed spherical roller bearing.	174
BSC-V	Full complement CARB® toroidal roller bearing.	187

C

C 22(00)	CARB® toroidal roller bearing.	186
C 23(00)	CARB® toroidal roller bearing.	187
C 30(00)	CARB® toroidal roller bearing.	188
C 31(00)	CARB® toroidal roller bearing.	187
C 39(00)	CARB® toroidal roller bearing.	189
C 40(00)	CARB® toroidal roller bearing.	186
C 40(00)-2CS5V	Sealed full complement CARB® toroidal roller bearing	192
C 41(00)	CARB® toroidal roller bearing.	187
C 41(00)-2CS5V	Sealed full complement CARB® toroidal roller bearing	192
C 49(00) V	CARB® toroidal roller bearing full complement	186
C 59(00) V	CARB® toroidal roller bearing full complement	186
C 59(00)-2CS5V	Sealed full complement CARB® toroidal roller bearing	192
C 60(00) V	CARB® toroidal roller bearing full complement	186
C 69(00) V	CARB® toroidal roller bearing full complement	186
C 69-2CS5V	Sealed full complement CARB® toroidal roller bearing	192
C2F-SS	MRC two bolt flanged unit with stainless steel bearing	266
C2F-ZM	MRC two bolt flanged unit with ZMaRC-coated bearing	265
C4F-SS	MRC 4 bolt flanged unit with stainless steel bearing	268
C4F-ZM	MRC 4 bolt flanged unit with ZMaRC-coated bearing	267
CBF-SS	MRC three bolt bracket flange unit with stainless bearing	272
CBF-ZM	MRC three bolt bracket flange unit with ZMaRC-coated bearing	271
CPB-SS	MRC unit block with stainless steel bearing.	264
CPB-ZM	MRC unit block with ZMaRC-coated bearing	263
CRL & CRM	Single row Cylindrical roller bearings inch sizes	140
CTB-SS	MRC tapped base unit block with stainless steel bearing	270
CTB-ZM	MRC tapped base unit block with ZMaRC-coated bearing	269
CTN-SS	MRC narrow slot Take-up unit with stainless steel bearing	274
CTN-ZM	MRC narrow slot Take-up unit with ZMaRC-coated bearing	273
CTW-SS	MRC wide slot Take-up unit with stainless steel bearing	276
CTW-ZM	MRC wide slot Take-up unit with ZMaRC-coated bearing	275

F

FSYE	Roller bearing unit	254
FSYE-N	Roller bearing unit, ConCentra.	255
FYE	Four bolt roller bearing unit block.	256
FY-FM	Four bolt ball bearing flanged unit	225
FYM-TF/AH	Four bolt ball bearing flanged unit, air handling, medium duty	237
FYR	Four bolt roller bearing flanged unit.	257
FYRP	Four bolt piloted roller bearing flanged unit	258
FY-TF	Four bolt ball bearing flanged unit	223
FY-TF/AH	Four bolt ball bearing, air handling unit	236
FYT-FM	Two bolt ball bearing flanged unit.	228

FYTM-TF	Two bolt ball bearing flanged unit, medium duty	229
FYT-TF	Two bolt ball bearing flanged unit.	226
FYT-TF/AH	Two bolt ball bearing flanged unit, air handling	235
FYT-WF	Two bolt ball bearing unit block	227
FY-WF	Four bolt ball bearing unit block	224

H, I

H	Adapter sleeve, series 2, 3, 23, 30, 31, and 39	288
HA, HE, HS	Adapter sleeve for inch shafts, series 2, 3, 23, 30 and 31	294
I designation bearings	Spherical roller bearing	181
ICOS-D1B	Deep groove ball bearing with radial shaft seal	54

N

N 200	Single row cylindrical roller bearing	112
N 300	Single row cylindrical roller bearing	112
NCF 18 V	Full complement single row cylindrical roller bearings	129
NCF 22 V	Full complement single row cylindrical roller bearings	129
NCF 28 V	Full complement single row cylindrical roller bearings	131
NCF 29 V	Full complement single row cylindrical roller bearings	128
NCF 30 V	Full complement single row cylindrical roller bearings	128
NJ 10	Single row cylindrical roller bearing	118
NJ 200	Single row cylindrical roller bearing	112
NJ 2200	Single row cylindrical roller bearing	112
NJ 2300	Single row cylindrical roller bearing	112
NJ 300	Single row cylindrical roller bearing	112
NJ 400	Single row cylindrical roller bearing	113
NJG 23 VH	Full complement single row cylindrical roller bearings	128
NNC CV	Full complement double row cylindrical roller bearings, series 48 and 49	133
NNCF CV	Full complement double row cylindrical roller bearings, series 48, 49 and 50	133
NNCL CV	Full complement double row cylindrical roller bearings, series 48 and 49	133
NNF 50(00) ADA-2LSV	Full complement double row cylindrical roller bearing	138
NU 10	Single row cylindrical roller bearing	112
NU 12	Single row cylindrical roller bearing	126
NU 2/VL0241	Single row cylindrical roller bearing with Insocoat® on the outer ring Insocoat® catalogue	
NU 20	Single row cylindrical roller bearing	126
NU 200	Single row cylindrical roller bearing	112
NU 22	Single row cylindrical roller bearing	112
NU 23	Single row cylindrical roller bearing	112
NU 300	Single row cylindrical roller bearing	112
NU 300/VL0241	Single row cylindrical roller bearing with Insocoat® on the outer ring Insocoat® catalogue	
NU 400	Single row cylindrical roller bearing	113
NUP 200	Single row cylindrical roller bearing	112
NUP 2200	Single row cylindrical roller bearing	112
NUP 2300	Single row cylindrical roller bearing	112
NUP 300	Single row cylindrical roller bearing	112

O, Q, R

OH	Adapter sleeve for oil injection	291
QJ 200 & QJ 300	Four point contact ball bearings	95
R--	MRC inch series	68
RLS--	Single row deep groove ball bearings	69
RMS--	Single row deep groove ball bearings	71
RRH and RRZ-BBR	MRC ZMaRC-coated insert bearings	246

S

S2F-SS	MRC 2 bolt flanged unit with stainless steel housing and bearing	284
S4F-SS	MRC 4 bolt flanged unit with stainless steel housing and bearing	285
SNW	Inch size adapters sleeves (possible substitutes for the HA, HE, HS series)	302
SPB-SS	MRC stainless steel pillow block unit	283

SR-FM	Pressed steel pillow block	231
STB-SS	MRC tapped base pillow block with stainless steel housing and bearing	286
SY PF & AH	Ball bearing unit block, ConCentra and air handling	238
SYE	Roller bearing unit block	250
SYE-N	Roller bearing pillow block ConCentra	251
SY-FM	Ball bearing unit block	217
SYH-FM	Ball bearing unit block, low base to centre	222
SYH-RM	Ball bearing unit block, low base to centre	220
SYH-TF	Ball bearing unit block, low base to centre	219
SYH-TF/AH	Ball bearing unit block, low base to centre	233
SYH-WF	Ball bearing unit block, low base to centre	221
SYM-TF	Ball bearing unit block, medium duty	218
SYM-TF/AH	Ball bearing unit block, air handling	234
SYR	Roller bearing unit block	252
SYR-N	Roller bearing unit block ConCentra	253
SYT	Roller bearing unit block - metric ConCentra	261
SY-TF	Ball bearing unit block	216
SY-TF/AH	Ball bearing unit block, air handling	232

T

T2DD	Single row taper roller bearing, ISO series	149
T2ED	Single row taper roller bearing, ISO series	147
T2EE	Single row taper roller bearing, ISO series	147
T3FE	Single row taper roller bearing, ISO series	150
T4CB	Single row taper roller bearing, ISO series	152
T4DB	Single row taper roller bearing, ISO series	153
T4EB	Single row taper roller bearing, ISO series	154
T5ED	Single row taper roller bearing, ISO series	151
T7FC (sets pg. 153)	Single row taper roller bearing, ISO series	147
TBR	Roller bearing take-up unit	259
TBR-N	Roller bearing take-up unit ConCentra	260
TFN-SS	MRC narrow slot stainless steel Take-up frames	277
TFW-SS	MRC wide slot stainless steel Take-up frames	278
TU--TF	Ball bearing take-up units	230

W

W60	Stainless deep groove ball bearing	60
W60-2RS1	Stainless deep groove ball bearing with seals	60
W60-2Z	Stainless deep groove ball bearing with shields	60
W617(00)	Stainless deep groove ball bearing	60
W618	Stainless deep groove ball bearing	60
W618-2Z	Stainless deep groove ball bearing with shields	60
W619	Stainless deep groove ball bearing	60
W619(00)-2RS1	Stainless deep groove ball bearing with seals	64
W619(00)-2Z	Stainless deep groove ball bearing with shields	64
W6200	Stainless deep groove ball bearing	60
W6200-2RS1	Stainless deep groove ball bearing with seals	63
W6200-2Z	Stainless deep groove ball bearing with shields	63
W627-2Z	Stainless deep groove ball bearing with shields	62
W628-2Z	Stainless deep groove ball bearing with shields	63
W6300	Stainless deep groove ball bearing	60
W6300-2Z	Stainless deep groove ball bearing with shields	63
W637-2Z	Stainless deep groove ball bearing with shields	62
W638-2Z	Stainless deep groove ball bearing with shields	63
W639-2Z	Stainless deep groove ball bearing with shields	63

Y, Z

YAR-2F	Y-bearing with grub screw locking	242
YAT	Y-bearing with grub screw locking	244
YEL-2F	Y-bearing with eccentric locking collar	241
YET	Y-bearing with eccentric locking collar	240
Z2F-ZM	MRC 2 bolt flanged unit with ZMaRC-coated cast iron block and bearing	280
Z4F-ZM	MRC 4 bolt flanged unit with ZMaRC-coated cast iron block and bearing	281
ZPB-ZM	MRC cast iron pillow block unit with ZMaRC-coated bearing	279
ZTB-ZM	MRC tapped base pillow block with ZMaRC coated cast iron block and bearing	282

