



# Taper roller bearings (metric series)

32302 B J2 / Q CL7C

1

2

3

4

## 1. Contact angle:

**B** Larger contact angle than standard

## 3. Features:

**Q** Improved friction torque characteristics and raceway geometry

## 2. Internal design:

**J2** Pressed steel cage rolling element guided

**X** Boundary dimensions changed to conform to ISO standards

**DF** Duplex (2) bearings, face-to-face arrangement including 1 outer ring

**DB** Duplex (2) bearings, back-to-back arrangement including 1 outer and 1 inner ring spacer

**DT** Duplex (2) bearings arranged in tandem with 1 outer ring and 1 inner ring spacer

**T...** A number immediately following the T identifies the total width of the matched bearings, arranged back-to-back or tandem

**C** Special axial clearance in microns (mean value)

## 4. Quality:

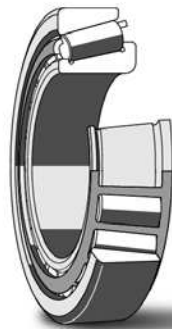
**CL7C** Special SKF quality for pinion bearings

**W64** Solid Oil lubricants

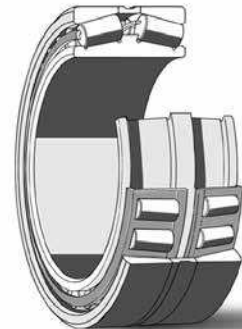
\* QCL7A is now QCL7C.

# Introduction

Technical features	
<b>Boundary dimensions</b>	In accordance with ISO 355-2007
<b>Tolerances</b>	ISO-Normal
<b>Heat stabilization</b>	302° F (150° C)
<b>Misalignment (under heavy load conditions)</b>	2-4 minutes of arc (logarithmic profile rollers)
<b>Cage Material</b>	
<b>Standard</b>	Steel
<b>Optional</b>	None
<b>Axial load – max</b>	Contact SKF Applications Engineering
<b>Seals</b>	Not available



*Single row  
Taper roller bearing  
(data tables on page 232)*



*Paired single row  
Taper roller bearing  
(data tables on page 242)*

## Introduction

Taper roller bearings have tapered inner and outer ring raceways between which tapered rollers are arranged. If extended, the tapered surfaces converge towards a single point on the bearing axis. This means that rolling conditions are at an optimum.

Their design makes taper roller bearings particularly suitable for the accommodation of combined (radial and axial) loads. The axial load carrying capacity of the bearings is largely determined by the contact angle  $\alpha$ , which corresponds to the angle of the outer ring raceway. The larger this angle, the larger the axial load carrying capacity. Taper roller bearings are generally of separable design; for example, the inner ring with roller and cage assembly forms a unit which can be mounted separately from the outer ring.

Single row taper roller bearings are able to accommodate axial loads acting in one direction only. Under radial loads, an axial force is produced in the bearing which must be counteracted. Therefore, it is customary for the single row taper roller bearings to be adjusted against a second taper roller bearing.

SKF manufactures single and double row taper roller bearings with metric dimensions. The single row bearings listed in the following product tables are the most prevalent. Double row taper roller bearings are also included in this catalog.

## Basic design

### Single row taper roller bearings

Continuous improvements made to SKF taper roller bearings resulted in the latest state of the art design known as the TQ-line (suffix Q). The sliding surfaces of the inner ring guide flange and the roller ends have been redesigned to enable lubricant feed to the roller end / flange contacts to be enhanced and lubricant film formation in the contacts to be considerably improved. The contact geometry between rollers and raceways has also been markedly improved by the "logarithmic" profile, which provides for optimum stress distribution in the bearing. Optimized raceway surfaces promote lubricant film formation and correct motion of the rollers. These improvements have considerably enhanced the performance of SKF taper roller bearings.

### Metric bearings

When the current international standard (ISO 355-1977) was prepared, new designations were devised for the Dimension series, and consequently, for the bearings.

However, since changes in bearing designations cause difficulties, and if introduced would necessitate the alteration of drawings, part lists, etc., both by producer and user, it was decided that the SKF designations for those bearings, which were in accordance with the earlier ISO/R 355 as well as the new standard, would be retained. New designations comprising the three symbols of the series designation to ISO, prefixed by the letter T and followed by a three-figure identification of the bore diameter in mm were adopted only for the bearing sizes, which were new to the ISO 355-1977 standard; for example, T2ED 045.

## SKF Explorer class bearings

High performance taper roller bearings in the SKF Explorer performance class are printed in blue in the product tables. The higher performance of SKF Explorer bearings retain the designation of the earlier standard bearings, e.g. 32010 X/Q. However, each bearing and its box are marked with the name "SKF Explorer".

Additional details on SKF Explorer performance class bearings can be found on page 25.

## Product highlights

### Suitable for heavy loads

Taper roller bearings are designed for heavy combined axial and radial loads.

### Offer longer life and higher reliability

SKF's latest state-of-the-art taper roller bearing design is less sensitive to misalignment (up to two minutes of arc) and offers long life, high reliability and low operating temperatures.

### CL7C design offers high running accuracy and low friction torque

These taper roller bearings operate under full load without any running-in risk or temperature peaks.

### Large product assortment

Available in a wide range of sizes including 15 to 320 mm inside diameter.

### Quiet running

The outstanding running and dimensional accuracy allows for extremely silent running conditions.

### Application flexibility

Depending on application needs, SKF has the possibility to provide either case-carburized or thru-hardened in some sizes. Typical applications are gearboxes, construction equipment, wheel hubs, and mining bulk conveyors.

# Introduction

## Paired single row taper roller bearings

For bearing arrangements where the load carrying capacity of a single bearing is inadequate or where the shaft has to be located in both directions with a given axial play, SKF can supply single row taper roller bearings as ready-to-mount matched pairs.

Matched pairs of single row taper roller bearings enable economic designs of bearing arrangement to be made and can be supplied by SKF in the arrangements shown in (Figure 1). However, the use of the paired bearings in face-to-face arrangements shown in the product tables on pages 242-246, which represent the range currently produced, is recommended. Other sets of bearings arranged face-to-face as well as bearing sets arranged back-to-back or in tandem can be supplied to order if the quantities required are economic.

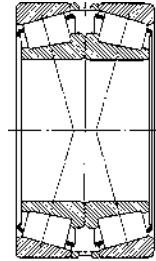
Where only a few sets are required it is recommended that they be matched by the user, following the instructions given in the SKF Rolling bearings catalog 10000 EN.

Matched pairs of bearings arranged face-to-face are simple in design and easily produced as they consist of two bearings with an intermediate ring between the two outer rings. The load lines of bearings arranged face-to-face converge towards the bearing axis. Axial loads can be accommodated in both directions, although only by one bearing at a time.

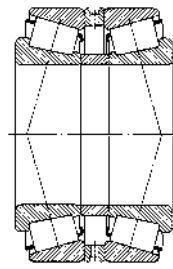
Where the bearing set has a back-to-back arrangement, two intermediate rings are needed: one between the outer rings and one between the inner rings. Such sets are therefore more expensive to produce. In a back-to-back arrangement, the load lines of the bearings diverge towards the bearing axis, so that such bearing arrangements are relatively stiff and can accommodate tilting moments. Axial loads can again be accommodated in both directions as for the face-to-face arrangement.

Sets of bearings arranged in tandem also call for the use of two intermediate rings (one between the inner and one between the outer rings) but such sets are seldom required. The load lines of bearings arranged in tandem are parallel to each other so that radial and axial loads are equally distributed over the bearing pair. Axial loads can only be taken up in one direction and the pair is usually adjusted against a third bearing, which can take axial loads acting in the opposite direction.

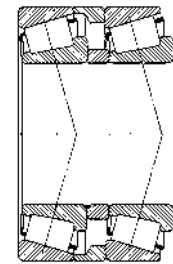
Figure 1



**Face-to-face arrangement**  
(Suffix DF)



**Back-to-back arrangement**  
(Suffix DB)



**Tandem arrangement**  
(Suffix DT)

## Variations

### CL7C design

Bearings to the CL7C specifications require no running-in and a hydrodynamic lubricant film is able to form in the roller end / flange so that their friction torque almost from the start of operation is as low as that of normal bearings after running-in. The bearings can be adjusted using the preload force / preload path procedures as well as the friction torque, as described in the SKF Rolling bearings catalog 10000 EN.

Further information on CL7C design bearings can be supplied on request.

### Four-row tapered roller bearings

Four-row tapered roller bearings are used in extremely heavy applications. Consult SKF Applications Engineering for further details.

### Metric bearing tolerances

SKF single row metric taper roller bearings are manufactured to Normal tolerances as standard. Some bearings are also available with higher accuracy – in particular those of series 320 X, T4CB and T4DB. Consult SKF Applications Engineering for further details.

### Inch series

SKF manufactures a limited assortment of these bearings. Consult SKF USA Inc. prior to design or ordering.

## Internal clearance

### Axial internal clearance – single row

The internal clearance of single row taper roller bearings can only be obtained after mounting and is determined by adjustment of the bearing against a second bearing which provides location in the opposite direction. Further details will be found in the SKF Rolling bearings catalog 10000 EN.

### Axial internal clearance – paired tapered roller bearings

The axial internal clearance of paired single row taper roller bearings is determined by the intermediate rings between the two bearings of the matched pair. The bearing pairs shown in the bearing tables are produced with the standard bearing clearance shown in Table 1. The values apply to bearings before they are mounted and under measuring loads of

- 100 N for bearings with an outside diameter  $D \leq 90$  mm
- 300 N for bearings with an outside diameter  $90 < D \leq 240$  mm
- 500 N for bearings with an outside diameter  $D > 240$  mm

Matched bearing sets having a clearance other than the standard value are identified by the designation suffix C followed by a two- or three-figure number, which gives the mean axial clearance in  $\mu\text{m}$ . The range of the special clearance is, however, the same as for the standard clearance; for example, for the bearing set designated 32048 X / DFC205, having a mean axial clearance of 205  $\mu\text{m}$ , the clearance limits are 175 and 235  $\mu\text{m}$  since the range from the table below for a 320X series bearing with 240 mm bore is  $500 - 440 = 60 \mu\text{m}$ .

## Loads

### Equivalent dynamic bearing load for single row taper roller bearings

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

$$P = 0.4 F_r + Y F_a \text{ where } F_a / F_r > e$$

The values of factors  $e$  and  $Y$  will be found in the bearing tables for each individual bearing.

Because the raceways are at an angle to the bearing axis, when taper roller bearings are subjected to a radial load, an axial force is induced within the bearing. This must be considered when calculating the equivalent dynamic bearing load. All the requisite equations for the various bearing arrangements and load cases are given on the following page. These are only valid if the bearings are adjusted against each other to give zero clearance in operation, but are without preload. Values for the axial load factor  $Y$  for bearings can be found in the bearing tables.

### Equivalent dynamic bearing load for bearings arranged in either face-to-face or back-to-back assemblies.

$$P = F_r + Y_1 F_a \text{ where } F_a / F_r \leq e$$

$$P = 0.67 F_r + Y_2 F_a \text{ where } F_a / F_r > e$$

$F_r$  and  $F_a$  are the forces acting on the bearing pair. Values of the factors  $e$ ,  $Y_1$  and  $Y_2$  are given for each bearing pair on the SKF website.

Information regarding the calculation of the equivalent load for sets of bearings arranged back-to-back or in tandem will be found in the SKF Rolling bearings catalog 10000 EN.

# Introduction

Table 1

Total width tolerances of matched single row metric taper roller bearings													
Bore diameter		Total width tolerance $\Delta_{TSD}$ of matched bearings of series											
		329		320		330		331, 302, 322, 332		303, 323		313	
d over	incl.	high	low	high	low	high	low	high	low	high	low	high	low
mm		$\mu\text{m}$											
-	30	-	-	+550	+100	-	-	+550	+100	+600	+150	+500	+50
30	40	-	-	+550	+100	-	-	+600	+150	+600	+150	+550	+50
40	50	-	-	+600	+150	-	-	+600	+200	+600	+200	+550	+50
50	65	-	-	+600	+150	-	-	+600	+200	+650	+200	+550	+100
65	80	-	-	+600	+200	-	-	+650	+200	+700	+200	+600	+100
80	100	+750	-150	+650	-250	+800	-50	+700	-200	+700	-100	+600	-300
100	120	+750	-150	+700	-200	+800	-100	+700	-200	+750	-150	+600	-300
120	140	+1 100	-200	+1 000	-300	+1 100	-200	+1 000	-300	+1 100	-200	+950	-350
140	160	+1 150	-150	+1 050	-250	+1 100	-200	+1 050	-250	+1 150	-150	+950	-350
160	180	+1 150	-150	+1 100	-200	-	-	+1 100	-200	+1 150	-150	-	-
180	190	+1 150	-150	+1 100	-200	-	-	+1 100	-200	+1 200	-100	-	-
190	200	+1 150	-150	+1 100	-200	-	-	+1 100	-200	+1 200	-100	-	-
200	225	+1 200	-100	+1 150	-150	-	-	+1 150	-150	+1 250	-50	-	-
225	250	+1 200	-100	+1 200	-100	-	-	+1 200	-100	+1 300	0	-	-
250	280	+1 300	0	+1 250	-50	-	-	+1 250	-50	-	-	-	-
280	300	+1 400	+100	+1 300	0	-	-	+1 300	0	-	-	-	-
300	315	+1 400	+100	+1 350	+50	-	-	+1 350	+50	-	-	-	-
315	340	+1 500	-200	+1 450	-250	-	-	+1 450	+200	-	-	-	-
Axial internal clearance of matched single row metric taper roller bearings													
Bore diameter		Axial internal clearance of matched bearings of series											
		329		320		330		331, 302, 322, 332		303, 323		313	
d over	incl.	min	max	min	max	min	max	min	max	min	max	min	max
mm		$\mu\text{m}$											
-	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	-	-	-	-

Note: To convert values to inches, multiply "μm" x 0.00004.

## Minimum load

In order to guarantee the satisfactory operation of all ball and roller bearings, they must always be subjected to a given minimum load. This is also true of taper roller bearings, particularly if they run at high speeds where the inertia forces of the rollers and cage, and the friction in the lubricant can have a detrimental influence on the rolling conditions in the bearing and may cause damaging sliding movements to occur between the rollers and the raceways.

The requisite minimum radial load to be applied in such cases can be found on the SKF website [www.skf.com](http://www.skf.com) under Knowledge Centre/Engineering tools and CAD, or by contacting SKF Applications Engineering by the bearing, together with the external forces, often exceeds the requisite minimum load. If this is not the case, an additional radial load must be applied to the bearing by increasing belt tension or similar means.

## Frequency vibration data

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

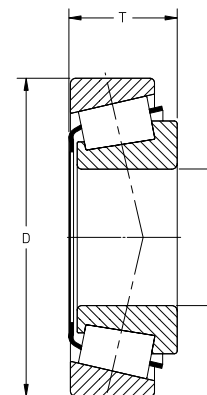
## Design of bearing arrangements

When designing bearing arrangements incorporating single row taper roller bearings, it is necessary to consider the special characteristics of these bearings. Because of their internal design, they cannot be used singly and a second bearing is required, or alternatively a paired set (**Figure 1**, page 228) may be used.

Where the arrangement comprises two single row taper roller bearings, they must be adjusted against each other until the desired operational clearance or requisite preload is achieved.

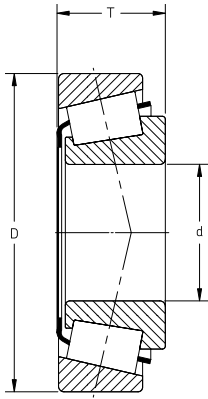
A correctly dimensioned operational clearance or preload is vital to the correct performance of single row taper roller bearings and also to the operational reliability of the bearing arrangement. If the operational clearance is too great, then the full load carrying capacity of the bearing will not be exploited and if the preload is too large then frictional losses will be greater, the operating temperature higher and the life shorter.

Single row  
 Standard and **SKF Explorer**  
 Series: 30202 – 30248  
 Size: 15 mm – 240 mm  
 0.5906 in – 9.4488 in



Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Calculation factors	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Reference speed	Limiting speed	kg	lb	e	Y
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min				
30202	15	0.5906	35	1.3780	11.75	0.4626	18 500	4 160	14 600	3 280	17 000	20 000	0.1	0.1	0.10	1.70
30203	17	0.6693	40	1.5748	13.25	0.5217	23 400	5 260	18 600	4 180	15 000	18 000	0.1	0.2	0.35	1.70
30204	20	0.7874	47	1.8504	15.25	0.6004	34 100	7 660	28 000	6 290	12 000	15 000	0.1	0.3	0.35	1.70
30205	25	0.9843	52	2.0472	16.25	0.6398	38 100	8 560	33 500	7 530	11 000	13 000	0.2	0.3	0.37	1.60
30 2 / 28	28	1.1024	58	2.2835	17.25	0.6791	46 600	10 470	41 500	9 330	10 000	12 000	0.2	0.4	0.37	1.60
30206	30	1.1811	62	2.4409	17.25	0.6791	50 000	11 240	44 000	9 890	9 000	11 000	0.2	0.5	0.37	1.60
30207	35	1.3780	72	2.8346	18.25	0.7185	63 200	14 200	56 000	12 580	8 000	9 500	0.3	0.7	0.37	1.60
30208	40	1.5748	80	3.1496	19.75	0.7776	75 800	17 030	68 000	15 280	7 000	8 500	0.4	0.9	0.37	1.60
30209	45	1.7717	85	3.3465	20.75	0.8169	81 600	18 340	76 500	17 190	6 300	8 000	0.5	1.0	0.40	1.50
30210	50	1.9685	90	3.5433	21.75	0.8563	93 100	20 920	91 500	20 560	6 000	7 500	0.5	1.2	0.43	1.40
30211	55	2.1654	100	3.9370	22.75	0.8957	111 000	24 940	106 000	23 820	5 300	6 700	0.7	1.5	0.40	1.50
30212	60	2.3622	110	4.3307	23.75	0.9350	120 000	26 970	114 000	25 620	5 000	6 000	0.9	1.9	0.40	1.50
30213	65	2.5591	120	4.7244	24.75	0.9744	141 000	31 690	134 000	30 110	4 500	5 600	1.1	2.5	0.40	1.50
30214	70	2.7559	125	4.9213	26.25	1.0335	155 000	34 830	156 000	35 060	4 300	5 300	1.2	2.7	0.43	1.40
30215	75	2.9528	130	5.1181	27.25	1.0728	171 000	38 430	176 000	39 550	4 000	5 000	1.4	3.0	0.43	1.40
30216	80	3.1496	140	5.5118	28.25	1.1122	184 000	41 350	183 000	41 120	3 800	4 800	1.6	3.6	0.43	1.40
30217	85	3.3465	150	5.9055	30.50	1.2008	216 000	48 540	220 000	49 440	3 600	4 300	2.0	4.5	0.43	1.40
30218	90	3.5433	160	6.2992	32.50	1.2795	240 000	53 900	245 000	55 100	3 400	4 000	2.5	5.6	0.43	1.40
30219	95	3.7402	170	6.6929	34.50	1.3583	266 000	59 800	275 000	61 800	3 200	3 800	3.0	6.6	0.43	1.40
30220	100	3.9370	180	7.0866	37.00	1.4567	304 000	68 300	320 000	71 900	3 000	3 600	3.6	8.0	0.43	1.40
30221	105	4.1339	190	7.4803	39.00	1.5354	333 000	74 800	355 000	79 800	2 800	3 400	4.3	9.5	0.43	1.40
30222	110	4.3307	200	7.8740	41.00	1.6142	376 000	84 500	405 000	91 000	2 600	3 200	5.1	11.2	0.43	1.40
30224	120	4.7244	215	8.4646	43.50	1.7126	417 000	93 700	465 000	104 500	2 400	3 000	6.1	13.5	0.43	1.40
30226	130	5.1181	230	9.0551	43.75	1.7224	451 000	101 300	490 000	110 100	2 200	2 800	6.8	15.1	0.43	1.40
30228	140	5.5118	250	9.8425	45.75	1.8012	451 000	101 300	570 000	128 100	1 900	2 600	8.7	19.2	0.43	1.40
30230	150	5.9055	270	10.6299	49.00	1.9291	455 000	102 200	560 000	125 800	1 800	2 400	10.6	23.4	0.43	1.40
30232	160	6.2992	290	11.4173	52.00	2.0472	566 000	127 200	735 000	165 200	1 600	2 200	13.2	29.1	0.43	1.40
30234	170	6.6929	310	12.2047	57.00	2.2441	657 000	147 600	865 000	194 400	1 500	2 000	16.6	36.6	0.43	1.40
30236	180	7.0866	320	12.5984	57.00	2.2441	629 000	141 300	815 000	183 100	1 500	2 000	17.0	37.5	0.46	1.30
30238	190	7.4803	340	13.3858	60.00	2.3622	763 000	171 500	1 000 000	224 700	1 400	1 800	20.5	45.3	0.43	1.40
30240	200	7.8740	360	14.1732	64.00	2.5197	845 000	189 900	1 120 000	251 700	1 300	1 700	24.6	54.3	0.43	1.40
30244	220	8.6614	400	15.7480	72.00	2.8346	1 059 000	238 000	1 400 000	314 600	1 200	1 600	34.4	75.9	0.43	1.40
30248	240	9.4488	440	17.3228	79.00	3.1102	1 300 000	292 100	1 760 000	395 500	1 000	1 400	47.0	103.6	0.43	1.40

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



Single row  
 Standard and SKF Explorer  
 Series: 30302 – 30334  
 Size: 15 mm – 170 mm  
 0.5906 in – 6.6929 in

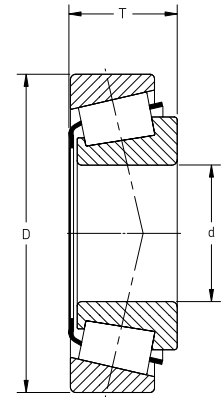
Series: 31305 – 31310  
 Size: 25 mm – 50 mm  
 0.9843 in – 1.9685 in

Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Calculation factors	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Reference speed	Limiting speed	kg	lb	e	Y
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min				
30302	15	0.5906	42	1.6535	14.25	0.5610	27 700	6 220	20 000	4 490	15 000	18 000	0.1	0.2	0.28	2.10
30303	17	0.6693	47	1.8504	15.25	0.6004	34 200	7 690	25 000	5 620	13 000	16 000	0.1	0.3	0.28	2.10
30304	20	0.7874	52	2.0472	16.25	0.6398	41 900	9 420	32 500	7 300	12 000	14 000	0.2	0.4	0.30	2.00
30305	25	0.9843	62	2.4409	18.25	0.7185	55 300	12 430	43 000	9 660	9 500	12 000	0.3	0.6	0.30	2.00
30306	30	1.1811	72	2.8346	20.75	0.8169	69 200	15 550	56 000	12 580	8 000	10 000	0.4	0.8	0.31	1.90
30307	35	1.3780	80	3.1496	22.75	0.8957	88 900	19 980	73 500	16 520	7 500	9 000	0.5	1.1	0.31	1.90
30308	40	1.5748	90	3.5433	25.25	0.9941	106 000	23 820	95 000	21 350	6 300	8 000	0.7	1.6	0.35	1.70
30309	45	1.7717	100	3.9370	27.25	1.0728	132 000	29 660	120 000	26 970	5 600	7 000	1.0	2.1	0.35	1.70
30310	50	1.9685	110	4.3307	29.25	1.1516	154 000	34 610	140 000	31 460	5 300	6 300	1.2	2.7	0.35	1.70
30311	55	2.1654	120	4.7244	31.50	1.2402	176 000	39 550	163 000	36 630	4 800	5 600	1.6	3.4	0.35	1.70
30312	60	2.3622	130	5.1181	33.50	1.3189	208 000	46 740	196 000	44 040	4 300	5 300	2.0	4.3	0.35	1.70
30313	65	2.5591	140	5.5118	36.00	1.4173	240 000	53 900	228 000	51 200	4 000	4 800	2.4	5.3	0.35	1.70
30314	70	2.7559	150	5.9055	38.00	1.4961	271 000	60 900	260 000	58 400	3 800	4 500	2.9	6.5	0.35	1.70
30315	75	2.9528	160	6.2992	40.00	1.5748	301 000	67 600	290 000	65 200	3 400	4 300	3.5	7.7	0.35	1.70
30316	80	3.1496	170	6.6929	42.50	1.6732	333 000	74 800	320 000	71 900	3 200	4 000	4.1	9.1	0.35	1.70
30317	85	3.3465	180	7.0866	44.50	1.7520	372 000	83 600	365 000	82 000	3 000	3 800	4.8	10.7	0.35	1.70
30318	90	3.5433	190	7.4803	46.50	1.8307	353 000	79 300	400 000	89 900	2 600	3 600	5.6	12.4	0.35	1.70
30319	95	3.7402	200	7.8740	49.50	1.9488	353 000	79 300	390 000	87 600	2 600	3 400	6.5	14.2	0.35	1.70
30320	100	3.9370	215	8.4646	51.50	2.0276	431 000	96 900	490 000	110 100	2 400	3 200	8.0	17.5	0.35	1.70
30321	105	4.1339	225	8.8583	53.50	2.1063	462 000	103 800	530 000	119 100	2 200	3 000	9.1	20.0	0.35	1.70
30322	110	4.3307	240	9.4488	54.50	2.1457	507 000	113 900	585 000	131 500	2 200	2 800	10.8	23.8	0.35	1.70
30324	120	4.7244	260	10.2362	59.50	2.3425	601 000	135 100	710 000	159 600	2 000	2 600	13.7	30.2	0.35	1.70
30326	130	5.1181	280	11.0236	63.75	2.5098	679 000	152 600	800 000	179 800	1 800	2 400	16.8	37.1	0.35	1.70
30328	140	5.5118	300	11.8110	67.75	2.6673	787 000	176 900	950 000	213 500	1 700	2 200	20.7	45.6	0.35	1.70
30330	150	5.9055	320	12.5984	72.00	2.8346	879 000	197 500	1 060 000	238 200	1 600	2 000	24.8	54.6	0.35	1.70
30332	160	6.2992	340	13.3858	75.00	2.9528	970 000	218 000	1 180 000	265 200	1 500	2 000	28.9	63.7	0.35	1.70
30334	170	6.6929	360	14.1732	80.00	3.1496	1 103 000	247 900	1 340 000	301 100	1 400	1 800	34.7	76.6	0.35	1.70
31305	25	0.9843	62	2.4409	18.25	0.7185	46 600	10 470	40 000	8 990	8 500	11 000	0.3	0.6	0.83	0.72
31306	30	1.1811	72	2.8346	20.75	0.8169	58 300	13 100	50 000	11 240	7 500	9 500	0.4	0.9	0.83	0.72
31307	35	1.3780	80	3.1496	22.75	0.8957	75 400	16 940	67 000	15 060	6 300	8 500	0.5	1.1	0.83	0.72
31308	40	1.5748	90	3.5433	25.25	0.9941	91 100	20 470	81 500	18 310	5 600	7 500	0.7	1.6	0.83	0.72
31309	45	1.7717	100	3.9370	27.25	1.0728	113 000	25 390	102 000	22 920	5 000	6 700	1.0	2.1	0.83	0.72
31310	50	1.9685	110	4.3307	29.25	1.1516	131 000	29 440	120 000	26 970	4 500	6 000	1.2	2.7	0.83	0.72

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

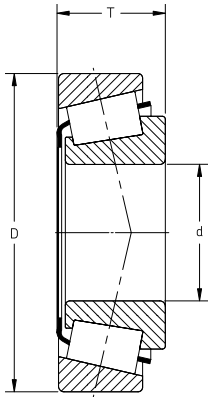
Single row  
 Standard and **SKF Explorer**  
 Series: 31311 – 31330 X  
 Size: 55 mm – 150 mm  
 2.1654 in – 5.9055 in

Series: 320/22 X – 32018 X  
 Size: 22 mm – 90 mm  
 0.8661 in – 3.5433 in



Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Calculation factors	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Reference speed	Limiting speed	kg	lb	e	Y
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min				
31311	55	2.1654	120	4.7244	31.50	1.2402	149 000	33 480	137 000	30 790	4 300	5 600	1.5	3.4	0.83	0.72
31312	60	2.3622	130	5.1181	33.50	1.3189	177 000	39 780	166 000	37 300	3 800	5 300	1.9	4.2	0.83	0.72
31313	65	2.5591	140	5.5118	36.00	1.4173	203 000	45 620	193 000	43 370	3 600	4 800	2.4	5.2	0.83	0.72
31314	70	2.7559	150	5.9055	38.00	1.4961	229 000	51 500	220 000	49 440	3 400	4 500	2.9	6.3	0.83	0.72
31315	75	2.9528	160	6.2992	40.00	1.5748	255 000	57 300	245 000	55 100	3 200	4 300	3.4	7.5	0.83	0.72
31316	80	3.1496	170	6.6929	42.50	1.6732	276 000	62 000	265 000	59 600	3 000	4 000	4.1	8.9	0.83	0.72
31317	85	3.3465	180	7.0866	44.50	1.7520	297 000	66 700	285 000	64 000	2 800	3 800	4.6	10.2	0.83	0.72
31318	90	3.5433	190	7.4803	46.50	1.8307	283 000	63 600	315 000	70 800	2 400	3 400	5.4	11.9	0.83	0.72
31319	95	3.7402	200	7.8740	49.50	1.9488	314 000	70 600	355 000	79 800	2 400	3 400	6.3	13.9	0.83	0.72
31320 X	100	3.9370	215	8.4646	56.50	2.2244	399 000	89 700	465 000	104 500	2 200	3 000	8.6	19.0	0.83	0.72
31321 X	105	4.1339	225	8.8583	58.00	2.2835	429 000	96 400	500 000	112 400	2 000	3 000	9.6	21.3	0.83	0.72
31322 X	110	4.3307	240	9.4488	63.00	2.4803	491 000	110 300	585 000	131 500	1 900	2 800	12.0	26.4	0.83	0.72
31324 X	120	4.7244	260	10.2362	68.00	2.6772	578 000	129 900	695 000	156 200	1 700	2 400	15.3	33.7	0.83	0.72
31326 X	130	5.1181	280	11.0236	72.00	2.8346	647 000	145 400	780 000	175 300	1 600	2 400	18.5	40.7	0.83	0.72
31328 X	140	5.5118	300	11.8110	77.00	3.0315	737 000	165 600	900 000	202 200	1 500	2 200	22.6	49.9	0.83	0.72
31330 X	150	5.9055	320	12.5984	82.00	3.2283	832 000	187 000	1 020 000	229 200	1 400	2 000	27.2	59.9	0.83	0.72
320/22 X	22	0.8661	44	1.7323	15.00	0.5906	30 900	6 940	29 000	6 520	13 000	15 000	0.1	0.2	0.40	1.50
320/28 X	28	1.1024	52	2.0472	16.00	0.6299	39 000	8 760	38 000	8 540	10 000	13 000	0.1	0.3	0.43	1.40
320/32 X	32	1.2598	58	2.2835	17.00	0.6693	45 100	10 130	46 500	10 450	9 000	11 000	0.2	0.4	0.46	1.30
32004 X	20	0.7874	42	1.6535	15.00	0.5906	29 700	6 670	27 000	6 070	13 000	16 000	0.1	0.2	0.37	1.60
32005 X	25	0.9843	47	1.8504	15.00	0.5906	33 200	7 460	32 500	7 300	12 000	14 000	0.1	0.3	0.43	1.40
32006 X	30	1.1811	55	2.1654	17.00	0.6693	43 900	9 870	44 000	9 890	10 000	12 000	0.2	0.4	0.43	1.40
32007 X	35	1.3780	62	2.4409	18.00	0.7087	52 300	11 750	54 000	12 130	8 500	10 000	0.2	0.5	0.46	1.30
32008 X	40	1.5748	68	2.6772	19.00	0.7480	64 700	14 540	71 000	15 960	7 500	9 500	0.3	0.6	0.37	1.60
32009 X	45	1.7717	75	2.9528	20.00	0.7874	71 700	16 110	80 000	17 980	7 000	8 500	0.3	0.8	0.40	1.50
32010 X	50	1.9685	80	3.1496	20.00	0.7874	75 100	16 880	88 000	19 780	6 300	8 000	0.4	0.8	0.43	1.40
32011 X	55	2.1654	90	3.5433	23.00	0.9055	99 400	22 340	116 000	26 070	5 600	7 000	0.6	1.2	0.40	1.50
32012 X	60	2.3622	95	3.7402	23.00	0.9055	101 000	22 700	122 000	27 420	5 300	6 700	0.6	1.3	0.43	1.40
32013 X	65	2.5591	100	3.9370	23.00	0.9055	103 000	23 150	127 000	28 540	5 000	6 000	0.6	1.4	0.46	1.30
32014 X	70	2.7559	110	4.3307	25.00	0.9843	125 000	28 090	153 000	34 380	4 500	5 600	0.9	1.9	0.43	1.40
32015 X	75	2.9528	115	4.5276	25.00	0.9843	130 000	29 210	163 000	36 630	4 300	5 300	0.9	2.0	0.46	1.30
32016 X	80	3.1496	125	4.9213	29.00	1.1417	168 000	37 750	216 000	48 540	4 000	5 000	1.3	2.9	0.43	1.40
32017 X	85	3.3465	130	5.1181	29.00	1.1417	171 000	38 430	224 000	50 300	3 800	4 800	1.4	3.0	0.44	1.35
32018 X	90	3.5433	140	5.5118	32.00	1.2598	208 000	46 740	270 000	60 700	3 600	4 300	1.8	3.9	0.43	1.40

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



Single row  
 Standard and **SKF Explorer**  
 Series: 32004 X – 32064 X  
 Size: 95 mm – 320 mm  
 3.7402 in – 12.5984in

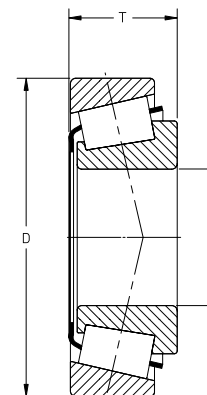
Series: 32205 – 32219  
 Size: 25 mm – 95 mm  
 0.9843 in – 3.7402 in

Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Calculation factors	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Reference speed	Limiting speed	kg	lb	e	Y
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min				
32019 X	95	3.7402	145	5.7087	32.00	1.2598	206 000	46 290	270 000	60 700	3 400	4 300	1.8	4.1	0.44	1.35
32020 X	100	3.9370	150	5.9055	32.00	1.2598	209 000	46 970	280 000	62 900	3 200	4 000	1.9	4.2	0.46	1.30
32021 X	105	4.1339	160	6.2992	35.00	1.3780	248 000	55 700	335 000	75 300	3 200	3 800	2.4	5.4	0.44	1.35
32022 X	110	4.3307	170	6.6929	38.00	1.4961	288 000	64 700	390 000	87 600	3 000	3 600	3.1	6.8	0.43	1.40
32024 X	120	4.7244	180	7.0866	38.00	1.4961	299 000	67 200	415 000	93 300	2 800	3 400	3.3	7.3	0.46	1.30
32026 X	130	5.1181	200	7.8740	45.00	1.7717	388 000	87 200	540 000	121 300	2 400	3 000	4.9	10.9	0.43	1.40
32028 X	140	5.5118	210	8.2677	45.00	1.7717	404 000	90 800	585 000	131 500	2 400	2 800	5.3	11.6	0.46	1.30
32030 X	150	5.9055	225	8.8583	48.00	1.8898	456 000	102 500	655 000	147 200	2 200	2 600	6.4	14.1	0.46	1.30
32032 X	160	6.2992	240	9.4488	51.00	2.0079	532 000	119 600	780 000	175 300	2 000	2 400	7.8	17.2	0.46	1.30
32034 X	170	6.6929	260	10.2362	57.00	2.2441	625 000	140 400	915 000	205 600	1 900	2 200	10.5	23.2	0.44	1.35
32036 X	180	7.0866	280	11.0236	64.00	2.5197	793 000	178 200	1 160 000	260 700	1 700	2 200	14.2	31.3	0.43	1.40
32038 X	190	7.4803	290	11.4173	64.00	2.5197	806 000	181 100	1 200 000	269 700	1 600	2 000	14.8	32.5	0.44	1.35
32040 X	200	7.8740	310	12.2047	70.00	2.7559	800 000	179 800	1 370 000	307 900	1 400	1 900	18.8	41.5	0.43	1.40
32044 X	220	8.6614	340	13.3858	76.00	2.9921	955 000	214 600	1 660 000	373 000	1 300	1 700	24.6	54.2	0.43	1.40
32048 X	240	9.4488	360	14.1732	76.00	2.9921	989 000	222 200	1 800 000	404 500	1 200	1 600	26.3	58.0	0.46	1.30
32052 X	260	10.2362	400	15.7480	87.00	3.4252	1 241 000	278 900	2 200 000	494 400	1 100	1 400	38.2	84.2	0.43	1.40
32056 X	280	11.0236	420	16.5354	87.00	3.4252	1 288 000	289 400	2 360 000	530 300	1 000	1 300	40.6	89.5	0.46	1.30
32060 X	300	11.8110	460	18.1102	100.00	3.9370	1 644 000	369 400	3 000 000	674 200	900	1 200	58.0	127.9	0.43	1.40
32064 X	320	12.5984	480	18.8976	100.00	3.9370	1 663 000	373 700	3 100 000	696 600	850	1 100	64.0	141.1	0.46	1.30
32205	25	0.9843	52	2.0472	19.25	0.7579	50 400	11 330	45 500	10 220	11 000	13 000	0.2	0.4	0.35	1.70
32206	30	1.1811	62	2.4409	21.25	0.8366	61 800	13 890	57 000	12 810	9 000	11 000	0.3	0.6	0.37	1.60
32207	35	1.3780	72	2.8346	24.25	0.9547	81 200	18 250	78 000	17 530	8 000	9 500	0.4	1.0	0.37	1.60
32208	40	1.5748	80	3.1496	24.75	0.9744	91 600	20 580	86 500	19 440	7 000	8 500	0.5	1.2	0.37	1.60
32209	45	1.7717	85	3.3465	24.75	0.9744	98 700	22 180	98 000	22 020	6 300	8 000	0.6	1.3	0.40	1.50
32210	50	1.9685	90	3.5433	24.75	0.9744	101 000	22 700	100 000	22 470	6 000	7 500	0.6	1.4	0.43	1.40
32211	55	2.1654	100	3.9370	26.75	1.0531	130 000	29 210	129 000	28 990	5 300	6 700	0.8	1.8	0.40	1.50
32212	60	2.3622	110	4.3307	29.75	1.1713	155 000	34 830	160 000	35 960	5 000	6 000	1.2	2.5	0.40	1.50
32213	65	2.5591	120	4.7244	32.75	1.2894	186 000	41 800	193 000	43 370	4 500	5 600	1.5	3.3	0.40	1.50
32214	70	2.7559	125	4.9213	33.25	1.3091	195 000	43 820	208 000	46 740	4 300	5 300	1.6	3.5	0.43	1.40
32215	75	2.9528	130	5.1181	33.25	1.3091	197 000	44 270	212 000	47 640	4 000	5 000	1.7	3.7	0.43	1.40
32216	80	3.1496	140	5.5118	35.25	1.3878	228 000	51 200	245 000	55 100	3 800	4 500	2.1	4.5	0.43	1.40
32217	85	3.3465	150	5.9055	38.50	1.5157	263 000	59 100	285 000	64 000	3 600	4 300	2.6	5.8	0.43	1.40
32218	90	3.5433	160	6.2992	42.50	1.6732	309 000	69 400	340 000	76 400	3 400	4 000	3.3	7.3	0.43	1.40
32219	95	3.7402	170	6.6929	45.50	1.7913	348 000	78 200	390 000	87 600	3 200	3 800	4.1	9.0	0.43	1.40

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

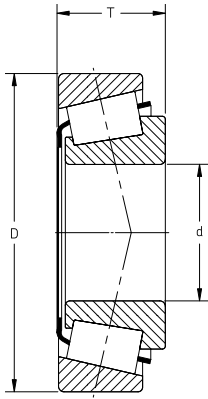
Single row  
 Standard and **SKF Explorer**  
 Series: 32220 – 32264  
 Size: 15 mm – 90 mm  
 0.5906 in – 3.5433 in

Series: 32303 – 32320  
 Size: 17 mm – 100 mm  
 0.6693 in – 3.9370 in



Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Calculation factors	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Reference speed	Limiting speed	kg	lb	e	Y
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min				
32220	15	0.5906	35	1.3780	11.75	0.4626	18 500	4 160	14 600	3 280	17 000	20 000	0.1	0.1	0.10	1.70
32221	17	0.6693	40	1.5748	13.25	0.5217	23 400	5 260	18 600	4 180	15 000	18 000	0.1	0.2	0.35	1.70
32222	20	0.7874	47	1.8504	15.25	0.6004	34 100	7 660	28 000	6 290	12 000	15 000	0.1	0.3	0.35	1.70
32224	25	0.9843	52	2.0472	16.25	0.6398	38 100	8 560	33 500	7 530	11 000	13 000	0.2	0.3	0.37	1.60
32226	28	1.1024	58	2.2835	17.25	0.6791	46 600	10 470	41 500	9 330	10 000	12 000	0.2	0.4	0.37	1.60
32228	30	1.1811	62	2.4409	17.25	0.6791	50 000	11 240	44 000	9 890	9 000	11 000	0.2	0.5	0.37	1.60
32230	35	1.3780	72	2.8346	18.25	0.7185	63 200	14 200	56 000	12 580	8 000	9 500	0.3	0.7	0.37	1.60
32232	40	1.5748	80	3.1496	19.75	0.7776	75 800	17 030	68 000	15 280	7 000	8 500	0.4	0.9	0.37	1.60
32234	45	1.7717	85	3.3465	20.75	0.8169	81 600	18 340	76 500	17 190	6 300	8 000	0.5	1.0	0.40	1.50
32236	50	1.9685	90	3.5433	21.75	0.8563	93 100	20 920	91 500	20 560	6 000	7 500	0.5	1.2	0.43	1.40
32238	55	2.1654	100	3.9370	22.75	0.8957	111 000	24 940	106 000	23 820	5 300	6 700	0.7	1.5	0.40	1.50
32240	60	2.3622	110	4.3307	23.75	0.9350	120 000	26 970	114 000	25 620	5 000	6 000	0.9	1.9	0.40	1.50
32244	65	2.5591	120	4.7244	24.75	0.9744	141 000	31 690	134 000	30 110	4 500	5 600	1.1	2.5	0.40	1.50
32248	70	2.7559	125	4.9213	26.25	1.0335	155 000	34 830	156 000	35 060	4 300	5 300	1.2	2.7	0.43	1.40
32252	75	2.9528	130	5.1181	27.25	1.0728	171 000	38 430	176 000	39 550	4 000	5 000	1.4	3.0	0.43	1.40
32256	80	3.1496	140	5.5118	28.25	1.1122	184 000	41 350	183 000	41 120	3 800	4 800	1.6	3.6	0.43	1.40
32260	85	3.3465	150	5.9055	30.50	1.2008	216 000	48 540	220 000	49 440	3 600	4 300	2.0	4.5	0.43	1.40
32264	90	3.5433	160	6.2992	32.50	1.2795	240 000	53 900	245 000	55 100	3 400	4 000	2.5	5.6	0.43	1.40
32303	17	0.6693	47	1.8504	20.25	0.7972	42 800	9 620	33 500	7 530	12 000	16 000	0.2	0.4	0.28	2.10
32304	20	0.7874	52	2.0472	22.25	0.8760	54 300	12 200	45 500	10 220	11 000	14 000	0.2	0.5	0.30	2.00
32305	25	0.9843	62	2.4409	25.25	0.9941	74 100	16 650	63 000	14 160	9 000	12 000	0.4	0.8	0.30	2.00
32306	30	1.1811	72	2.8346	28.75	1.1319	95 000	21 350	85 000	19 100	7 500	10 000	0.6	1.2	0.31	1.90
32307	35	1.3780	80	3.1496	32.75	1.2894	117 000	26 290	106 000	23 820	6 700	9 000	0.7	1.6	0.31	1.90
32308	40	1.5748	90	3.5433	35.25	1.3878	143 000	32 130	140 000	31 460	6 000	8 000	1.0	2.3	0.35	1.70
32309	45	1.7717	100	3.9370	38.25	1.5059	173 000	38 880	170 000	38 200	5 300	7 000	1.4	3.1	0.35	1.70
32310	50	1.9685	110	4.3307	42.25	1.6634	211 000	47 420	212 000	47 640	4 800	6 300	1.8	4.0	0.35	1.70
32311	55	2.1654	120	4.7244	45.50	1.7913	245 000	55 100	250 000	56 200	4 300	5 600	2.3	5.1	0.35	1.70
32312	60	2.3622	130	5.1181	48.50	1.9094	282 000	63 400	290 000	65 200	4 000	5 300	2.9	6.4	0.35	1.70
32313	65	2.5591	140	5.5118	51.00	2.0079	323 000	72 600	335 000	75 300	3 600	4 800	3.5	7.7	0.35	1.70
32314	70	2.7559	150	5.9055	54.00	2.1260	363 000	81 600	380 000	85 400	3 400	4 500	4.3	9.4	0.35	1.70
32315	75	2.9528	160	6.2992	58.00	2.2835	416 000	93 500	440 000	98 900	3 200	4 300	5.2	11.5	0.35	1.70
32316	80	3.1496	170	6.6929	61.50	2.4213	465 000	104 500	500 000	112 400	3 200	4 000	6.2	13.7	0.35	1.70
32317	85	3.3465	180	7.0866	63.50	2.5000	501 000	112 600	530 000	119 100	3 000	3 800	7.1	15.6	0.35	1.70
32318	90	3.5433	190	7.4803	67.50	2.6575	487 000	109 400	610 000	137 100	2 600	3 600	8.4	18.5	0.35	1.70
32319	95	3.7402	200	7.8740	71.50	2.8150	535 000	120 200	670 000	150 600	2 400	3 400	9.8	21.6	0.35	1.70
32320	100	3.9370	215	8.4646	77.50	3.0512	617 000	138 700	780 000	175 300	2 200	3 200	12.5	27.5	0.35	1.70

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



Single row  
**SKF Explorer**  
 Series: 32321 – 32328  
 Size: 105 mm – 140 mm  
 4.1339 in – 5.5118 in

Series: 32910 – 32964  
 Size: 50 mm – 320 mm  
 1.9685 in – 12.5984 in

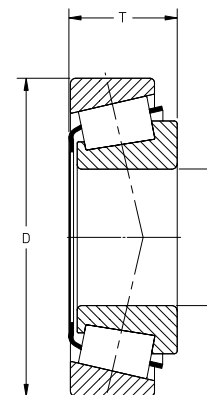
Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Calculation factors	
	Bore		Outside diameter		Width		Dynamic		Static		Reference	Limiting	kg	lb	e	Y
	d		D		B			C	C <sub>0</sub>	speed	speed					
mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min					
32321	105	4.1339	225	8.8583	81.50	3.2087	645 000	144 900	815 000	183 100	2 000	3 000	14.1	31.2	0.35	1.70
32322	110	4.3307	240	9.4488	84.50	3.3268	675 000	151 700	830 000	186 500	1 900	2 800	16.6	36.7	0.35	1.70
32324	120	4.7244	260	10.2362	90.50	3.5630	855 000	192 100	1 120 000	251 700	1 800	2 600	21.4	47.1	0.35	1.70
32326	130	5.1181	280	11.0236	98.75	3.8878	1 019 000	229 000	1 340 000	301 100	1 600	2 400	27.3	60.1	0.35	1.70
32328	140	5.5118	300	11.8110	107.75	4.2421	1 220 000	274 200	1 660 000	373 000	1 600	2 200	34.6	76.4	0.35	1.70
32910	50	1.9685	72	2.8346	15.00	0.5906	41 300	9 280	53 000	11 910	7 000	8 500	0.2	0.4	0.35	1.70
32911	55	2.1654	80	3.1496	17.00	0.6693	51 700	11 620	69 500	15 620	6 300	7 500	0.3	0.6	0.31	1.90
32912	60	2.3622	85	3.3465	17.00	0.6693	53 200	11 960	75 000	16 850	6 000	7 000	0.3	0.7	0.33	1.80
32913	65	2.5591	90	3.5433	17.00	0.6693	54 700	12 290	80 000	17 980	5 600	6 700	0.3	0.7	0.35	1.70
32914	70	2.7559	100	3.9370	20.00	0.7874	85 800	19 280	112 000	25 170	5 000	6 000	0.5	1.1	0.31	1.90
32915	75	2.9528	105	4.1339	20.00	0.7874	86 800	19 510	116 000	26 070	4 800	5 600	0.5	1.1	0.33	1.80
32916	80	3.1496	110	4.3307	20.00	0.7874	89 700	20 160	125 000	28 090	4 500	5 600	0.5	1.2	0.35	1.70
32917	85	3.3465	120	4.7244	23.00	0.9055	115 000	25 840	156 000	35 060	4 000	5 000	0.8	1.7	0.33	1.80
32918	90	3.5433	125	4.9213	23.00	0.9055	119 000	26 740	166 000	37 300	4 000	4 800	0.8	1.8	0.35	1.70
32919	95	3.7402	130	5.1181	23.00	0.9055	121 000	27 190	173 000	38 880	3 800	4 500	0.9	1.9	0.35	1.70
32920	100	3.9370	140	5.5118	25.00	0.9843	147 000	33 030	204 000	45 840	3 400	4 300	1.1	2.5	0.33	1.80
32921	105	4.1339	145	5.7087	25.00	0.9843	149 000	33 480	212 000	47 640	3 400	4 000	1.2	2.6	0.35	1.70
32922	110	4.3307	150	5.9055	25.00	0.9843	154 000	34 610	224 000	50 300	3 200	4 000	1.2	2.7	0.35	1.70
32924	120	4.7244	165	6.4961	29.00	1.1417	204 000	45 840	305 000	68 500	3 000	3 600	1.8	4.0	0.35	1.70
32926	130	5.1181	180	7.0866	32.00	1.2598	245 000	55 100	365 000	82 000	2 600	3 200	2.4	5.3	0.33	1.80
32928	140	5.5118	190	7.4803	32.00	1.2598	252 000	56 600	390 000	87 600	2 600	3 000	2.5	5.6	0.35	1.70
32930	150	5.9055	210	8.2677	38.00	1.4961	346 000	77 800	530 000	119 100	2 200	2 800	3.9	8.7	0.33	1.80
32932	160	6.2992	220	8.6614	38.00	1.4961	349 000	78 400	540 000	121 300	2 200	2 600	4.2	9.2	0.35	1.70
32934	170	6.6929	230	9.0551	38.00	1.4961	351 000	78 900	585 000	131 500	2 000	2 400	4.5	9.9	0.37	1.60
32936	180	7.0866	250	9.8425	45.00	1.7717	435 000	97 800	735 000	165 200	1 900	2 200	6.7	14.7	0.48	1.25
32938	190	7.4803	260	10.2362	45.00	1.7717	443 000	99 600	765 000	171 900	1 800	2 200	7.0	15.4	0.48	1.25
32940	200	7.8740	280	11.0236	51.00	2.0079	588 000	132 100	950 000	213 500	1 700	2 000	9.5	20.9	0.40	1.50
32944	220	8.6614	300	11.8110	51.00	2.0079	601 000	135 100	1 000 000	224 700	1 500	1 900	10.2	22.4	0.43	1.40
32948	240	9.4488	320	12.5984	51.00	2.0079	624 000	140 200	1 080 000	242 700	1 400	1 700	11.0	24.3	0.46	1.30
32952	260	10.2362	360	14.1732	63.50	2.5000	910 000	204 500	1 530 000	343 800	1 300	1 600	18.9	41.6	0.40	1.50
32956	280	11.0236	380	14.9606	63.50	2.5000	950 000	213 500	1 660 000	373 000	1 200	1 400	20.2	44.6	0.43	1.40
32960	300	11.8110	420	16.5354	76.00	2.9921	1 126 000	253 000	2 240 000	503 400	950	1 300	31.7	69.8	0.40	1.50
32964	320	12.5984	440	17.3228	76.00	2.9921	1 156 000	259 800	2 360 000	530 300	900	1 200	33.5	73.9	0.43	1.40

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

Single row  
 Standard and **SKF Explorer**  
 Series: 32968 – 32972  
 Size: 340 mm – 360 mm  
 13.3858 in – 14.1732 in

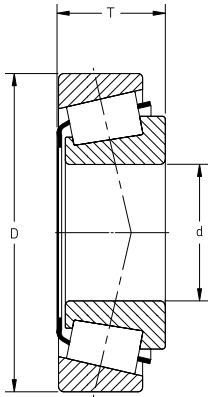
Series: 33010 – 33030  
 Size: 50 mm – 150 mm  
 1.9685 in – 5.9055 in

Series: 33108 – 33122  
 Size: 40 mm – 110 mm  
 1.5748 in – 4.3307 in



Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Calculation factors	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Reference speed	Limiting speed	kg	lb	e	Y
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min				
<b>32968</b>	340	13.3858	460	18.1102	76.00	2.9921	1 163 000	261 300	2 400 000	539 300	850	1 200	35.0	77.2	0.44	1.35
<b>32972</b>	360	14.1732	480	18.8976	76.00	2.9921	1 191 000	267 600	2 550 000	573 000	800	1 100	37.0	81.6	0.46	1.30
<b>33010</b>	50	1.9685	80	3.1496	24.00	0.9449	84 800	19 060	102 000	22 920	6 300	8 000	0.4	1.0	0.31	1.90
<b>33011</b>	55	2.1654	90	3.5433	27.00	1.0630	111 000	24 940	137 000	30 790	5 600	7 000	0.7	1.5	0.31	1.90
<b>33012</b>	60	2.3622	95	3.7402	27.00	1.0630	113 000	25 390	143 000	32 130	5 300	6 700	0.7	1.6	0.33	1.80
<b>33013</b>	65	2.5591	100	3.9370	27.00	1.0630	119 000	26 740	153 000	34 380	5 000	6 300	0.8	1.7	0.35	1.70
<b>33014</b>	70	2.7559	110	4.3307	31.00	1.2205	159 000	35 730	196 000	44 040	4 800	5 600	1.1	2.4	0.28	2.10
<b>33015</b>	75	2.9528	115	4.5276	31.00	1.2205	167 000	37 530	228 000	51 200	4 300	5 300	1.2	2.6	0.30	2.00
<b>33016</b>	80	3.1496	125	4.9213	36.00	1.4173	207 000	46 520	285 000	64 000	4 000	5 000	1.6	3.6	0.28	2.10
<b>33017</b>	85	3.3465	130	5.1181	36.00	1.4173	223 000	50 100	310 000	69 700	3 800	4 800	1.7	3.8	0.30	2.00
<b>33018</b>	90	3.5433	140	5.5118	39.00	1.5354	266 000	59 800	355 000	79 800	3 600	4 500	2.2	4.8	0.27	2.20
<b>33019</b>	95	3.7402	145	5.7087	39.00	1.5354	272 000	61 100	375 000	84 300	3 400	4 300	2.3	5.1	0.28	2.10
<b>33020</b>	100	3.9370	150	5.9055	39.00	1.5354	278 000	62 500	390 000	87 600	3 400	4 000	2.4	5.3	0.28	2.10
<b>33021</b>	105	4.1339	160	6.2992	43.00	1.6929	303 000	68 100	430 000	96 600	3 200	3 800	3.0	6.7	0.28	2.10
<b>33022</b>	110	4.3307	170	6.6929	47.00	1.8504	343 000	77 100	500 000	112 400	3 000	3 600	3.8	8.4	0.28	2.10
<b>33024</b>	120	4.7244	180	7.0866	48.00	1.8898	356 000	80 000	540 000	121 300	2 800	3 400	4.2	9.2	0.30	2.00
<b>33026</b>	130	5.1181	200	7.8740	55.00	2.1654	470 000	105 600	680 000	152 800	2 400	3 000	6.1	13.5	0.35	1.70
<b>33030</b>	150	5.9055	225	8.8583	59.00	2.3228	561 000	126 100	865 000	194 400	2 200	2 600	8.0	17.7	0.37	1.60
<b>33108</b>	40	1.5748	75	2.9528	26.00	1.0236	97 500	21 910	104 000	23 370	7 000	9 000	0.5	1.1	0.35	1.70
<b>33109</b>	45	1.7717	80	3.1496	26.00	1.0236	104 000	23 370	114 000	25 620	6 700	8 000	0.5	1.2	0.37	1.60
<b>33110</b>	50	1.9685	85	3.3465	26.00	1.0236	106 000	23 820	122 000	27 420	6 000	7 500	0.6	1.3	0.40	1.50
<b>33111</b>	55	2.1654	95	3.7402	30.00	1.1811	136 000	30 560	156 000	35 060	5 600	6 700	0.9	1.9	0.37	1.60
<b>33112</b>	60	2.3622	100	3.9370	30.00	1.1811	144 000	32 360	170 000	38 200	5 300	6 300	0.9	2.0	0.40	1.50
<b>33113</b>	65	2.5591	110	4.3307	34.00	1.3386	175 000	39 330	208 000	46 740	4 800	5 600	1.3	2.8	0.40	1.50
<b>33114</b>	70	2.7559	120	4.7244	37.00	1.4567	211 000	47 420	250 000	56 200	4 300	5 300	1.7	3.7	0.37	1.60
<b>33115</b>	75	2.9528	125	4.9213	37.00	1.4567	216 000	48 540	265 000	59 600	4 000	5 000	1.8	3.9	0.40	1.50
<b>33116</b>	80	3.1496	130	5.1181	37.00	1.4567	221 000	49 660	280 000	62 900	4 000	4 800	1.9	4.1	0.43	1.40
<b>33117</b>	85	3.3465	140	5.5118	41.00	1.6142	268 000	60 200	340 000	76 400	3 600	4 500	2.4	5.4	0.40	1.50
<b>33118</b>	90	3.5433	150	5.9055	45.00	1.7717	310 000	69 700	390 000	87 600	3 400	4 300	3.1	6.9	0.40	1.50
<b>33122</b>	110	4.3307	180	7.0866	56.00	2.2047	455 000	102 200	630 000	141 600	2 800	3 400	5.5	12.2	0.43	1.40

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



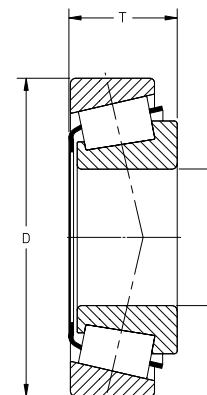
Single row  
**SKF Explorer**  
 Series: 33205 – 33220  
 Size: 25 mm – 100 mm  
 0.9843 in – 3.9370 in

Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Calculation factors	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Reference speed	Limiting speed	kg	lb	e	Y
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min				
33205	25	0.9843	52	2.0472	22.00	0.8661	57 900	13 010	56 000	12 580	10 000	13 000	0.2	0.5	0.35	1.70
33206	30	1.1811	62	2.4409	25.00	0.9843	79 700	17 910	76 500	17 190	8 500	11 000	0.4	0.8	0.35	1.70
33207	35	1.3780	72	2.8346	28.00	1.1024	104 000	23 370	106 000	23 820	7 000	9 500	0.5	1.2	0.35	1.70
33208	40	1.5748	80	3.1496	32.00	1.2598	128 000	28 760	132 000	29 660	6 300	8 500	0.7	1.6	0.35	1.70
33209	45	1.7717	85	3.3465	32.00	1.2598	132 000	29 660	143 000	32 130	6 000	7 500	0.8	1.8	0.40	1.50
33210	50	1.9685	90	3.5433	32.00	1.2598	142 000	31 910	160 000	35 960	5 300	7 000	0.9	1.9	0.40	1.50
33211	55	2.1654	100	3.9370	35.00	1.3780	170 000	38 200	190 000	42 700	4 800	6 300	1.2	2.6	0.40	1.50
33212	60	2.3622	110	4.3307	38.00	1.4961	207 000	46 520	236 000	53 000	4 500	6 000	1.5	3.4	0.40	1.50
33213	65	2.5591	120	4.7244	41.00	1.6142	239 000	53 700	270 000	60 700	4 000	5 300	2.0	4.4	0.40	1.50
33214	70	2.7559	125	4.9213	41.00	1.6142	247 000	55 500	285 000	64 000	3 800	5 000	2.1	4.6	0.40	1.50
33215	75	2.9528	130	5.1181	41.00	1.6142	255 000	57 300	300 000	67 400	3 600	4 800	2.2	4.8	0.43	1.40
33216	80	3.1496	140	5.5118	46.00	1.8110	308 000	69 200	375 000	84 300	3 400	4 500	2.9	6.4	0.43	1.40
33217	85	3.3465	150	5.9055	49.00	1.9291	353 000	79 300	430 000	96 600	3 200	4 300	3.6	7.9	0.43	1.40
33218	90	3.5433	160	6.2992	55.00	2.1654	415 000	93 300	520 000	116 900	3 000	4 000	4.6	10.2	0.43	1.40
33219	95	3.7402	170	6.6929	58.00	2.2835	460 000	103 400	560 000	125 800	2 800	3 800	5.5	12.0	0.40	1.50
33220	100	3.9370	180	7.0866	63.00	2.4803	532 000	119 600	655 000	147 200	2 600	3 600	6.7	14.8	0.40	1.50

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

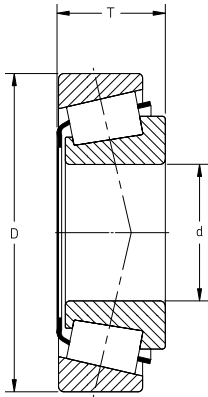
Single row  
 Standard and **SKF Explorer**  
 Series: T2EE 040 – T4EB 240  
 Size: 120 mm – 320 mm  
 4.7244 in – 12.5984 in

Series: T7FC 080 – T4EB 240  
 Size: 50 mm – 130 mm  
 1.9685 in – 5.1811 in



Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Calculation factors	
	Bore		Outside diameter		Width		Dynamic		Static		Reference speed	Limiting speed				
	d		D		B		C	C <sub>0</sub>			r/min	r/min	kg	lb	e	Y
	mm	in	mm	in	mm	in	N	lbf	N	lbf						
T2EE 040	120	4.7244	165	6.4961	29.00	1.1417	204 000	45 840	305 000	68 500	3 000	3 600	1.8	4.0	0.35	1.70
T2ED 045	130	5.1181	180	7.0866	32.00	1.2598	245 000	55 100	365 000	82 000	2 600	3 200	2.4	5.3	0.33	1.80
T7FC 045	140	5.5118	190	7.4803	32.00	1.2598	252 000	56 600	390 000	87 600	2 600	3 000	2.5	5.6	0.35	1.70
T2ED 050	150	5.9055	210	8.2677	38.00	1.4961	346 000	77 800	530 000	119 100	2 200	2 800	3.9	8.7	0.33	1.80
T7FC 050	160	6.2992	220	8.6614	38.00	1.4961	349 000	78 400	540 000	121 300	2 200	2 600	4.2	9.2	0.35	1.70
T2ED 055	170	6.6929	230	9.0551	38.00	1.4961	351 000	78 900	585 000	131 500	2 000	2 400	4.5	9.9	0.37	1.60
T7FC 055	180	7.0866	250	9.8425	45.00	1.7717	435 000	97 800	735 000	165 200	1 900	2 200	6.7	14.7	0.48	1.25
T2EE 060	190	7.4803	260	10.2362	45.00	1.7717	443 000	99 600	765 000	171 900	1 800	2 200	7.0	15.4	0.48	1.25
T7FC 060	200	7.8740	280	11.0236	51.00	2.0079	588 000	132 100	950 000	213 500	1 700	2 000	9.5	20.9	0.40	1.50
T2DD 065	220	8.6614	300	11.8110	51.00	2.0079	601 000	135 100	1 000 000	224 700	1 500	1 900	10.2	22.4	0.43	1.40
T7FC 065	240	9.4488	320	12.5984	51.00	2.0079	624 000	140 200	1 080 000	242 700	1 400	1 700	11.0	24.3	0.46	1.30
T2ED 070	260	10.2362	360	14.1732	63.50	2.5000	910 000	204 500	1 530 000	343 800	1 300	1 600	18.9	41.6	0.40	1.50
T7FC 070	280	11.0236	380	14.9606	63.50	2.5000	95 000	213 500	1 660 000	373 000	1 200	1 400	20.2	44.6	0.43	1.40
T3FE 075	300	11.8110	420	16.5354	76.00	2.9921	1 126 000	253 000	2 240 000	503 400	950	1 300	31.7	69.8	0.40	1.50
T7FC 075	320	12.5984	440	17.3228	76.00	2.9921	1 156 000	259 800	2 360 000	530 300	900	1 200	33.5	73.9	0.43	1.40
T7FC 080	50	1.9685	80	3.1496	24.00	0.9449	8 480	19 060	102 000	22 920	6 300	8 000	0.4	1.0	0.31	1.90
T7FC 085	55	2.1654	90	3.5433	27.00	1.0630	11 100	24 940	137 000	30 790	5 600	7 000	0.7	1.5	0.31	1.90
T2EE 100	60	2.3622	95	3.7402	27.00	1.0630	113 000	25 390	143 000	32 130	5 300	6 700	0.7	1.6	0.33	1.80
T4CB 100	65	2.5591	100	3.9370	27.00	1.0630	119 000	26 740	153 000	34 380	5 000	6 300	0.8	1.7	0.35	1.70
T4CB 120	70	2.7559	110	4.3307	31.00	1.2205	159 000	35 730	196 000	44 040	4 800	5 600	1.1	2.4	0.28	2.10
T4CB 140	75	2.9528	115	4.5276	31.00	1.2205	167 000	37 530	228 000	51 200	4 300	5 300	1.2	2.6	0.30	2.00
T4DB 150	80	3.1496	125	4.9213	36.00	1.4173	207 000	46 520	285 000	64 000	4 000	5 000	1.6	3.6	0.28	2.10
T4DB 160	85	3.3465	130	5.1181	36.00	1.4173	223 000	50 100	310 000	69 700	3 800	4 800	1.7	3.8	0.30	2.00
T4EE 160	90	3.5433	140	5.5118	39.00	1.5354	266 000	59 800	355 000	79 800	3 600	4 500	2.2	4.8	0.27	2.20
T4DB 170	95	3.7402	145	5.7087	39.00	1.5354	272 000	61 100	375 000	84 300	3 400	4 300	2.3	5.1	0.28	2.10
T4DB 180	100	3.9370	150	5.9055	39.00	1.5354	278 000	62 500	390 000	87 600	3 400	4 000	2.4	5.3	0.28	2.10
T4DB 200	105	4.1339	160	6.2992	43.00	1.6929	303 000	68 100	430 000	96 600	3 200	3 800	3.0	6.7	0.28	2.10
T2DC 220	110	4.3307	170	6.6929	47.00	1.8504	343 000	77 100	500 000	112 400	3 000	3 600	3.8	8.4	0.28	2.10
T2EE 240	120	4.7244	180	7.0866	48.00	1.8898	356 000	80 000	540 000	121 300	2 800	3 400	4.2	9.2	0.30	2.00
T4EB 240	130	5.1181	200	7.8740	55.00	2.1654	470 000	105 600	680 000	152 800	2 400	3 000	6.1	13.5	0.35	1.70

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



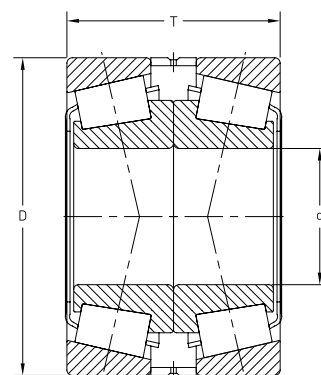
Single row  
**SKF Explorer**  
 Series: JL 26749/710 – JM 73829/210  
 Size: 80 mm – 180 mm  
 3.1496 in – 7.0866 in

Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Calculation factors	
	Bore		Outside diameter		Width		Dynamic		Static		Refer- ence speed	Limiting speed	kg	lb		
	d		D		B		C		C <sub>0</sub>							
mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min			e	Y	
JL 26749/710	80	3.1496	125	4.9213	29.00	1.1417	168 000	37 750	216 000	48 540	4 000	5 000	1.3	2.9	0.43	1.40
JL 69345/310	85	3.3465	130	5.1181	29.00	1.1417	171 000	38 430	224 000	50 300	3 800	4 800	1.4	3.0	0.44	1.35
JL 69349/310	90	3.5433	140	5.5118	32.00	1.2598	208 000	46 740	270 000	60 700	3 600	4 300	1.8	3.9	0.43	1.40
JLM 10 4945/910	95	3.7402	145	5.7087	32.00	1.2598	206 000	46 290	270 000	60 700	3 400	4 300	1.8	4.1	0.44	1.35
JM 20 5149/110	100	3.9370	150	5.9055	32.00	1.2598	209 000	46 970	280 000	62 900	3 200	4 000	1.9	4.2	0.46	1.30
JLM 50 8748/710	105	4.1339	160	6.2992	35.00	1.3780	248 000	55 700	335 000	75 300	3 200	3 800	2.4	5.4	0.44	1.35
JLM 710 949/910	110	4.3307	170	6.6929	38.00	1.4961	288 000	64 700	390 000	87 600	3 000	3 600	3.1	6.8	0.43	1.40
JM 511946/910	120	4.7244	180	7.0866	38.00	1.4961	299 000	67 200	415 000	93 300	2 800	3 400	3.3	7.3	0.46	1.30
JM 714249/210	130	5.1181	200	7.8740	45.00	1.7717	388 000	87 200	540 000	121 300	2 400	3 000	4.9	10.9	0.43	1.40
JM 515649/610	140	5.5118	210	8.2677	45.00	1.7717	404 000	90 800	585 000	131 500	2 400	2 800	5.3	11.6	0.46	1.30
JM 716649/610	150	5.9055	225	8.8583	48.00	1.8898	456 000	102 500	655 000	147 200	2 200	2 600	6.4	14.1	0.46	1.30
JM 718149/110	160	6.2992	240	9.4488	51.00	2.0079	532 000	119 600	780 000	175 300	2 000	2 400	7.8	17.2	0.46	1.30
JM 8220 49/010	170	6.6929	260	10.2362	57.00	2.2441	625 000	140 400	915 000	205 600	1 900	2 200	10.5	23.2	0.44	1.35
JM 738249/210	180	7.0866	280	11.0236	64.00	2.5197	793 000	178 200	1 160 000	260 700	1 700	2 200	14.2	31.3	0.43	1.40

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

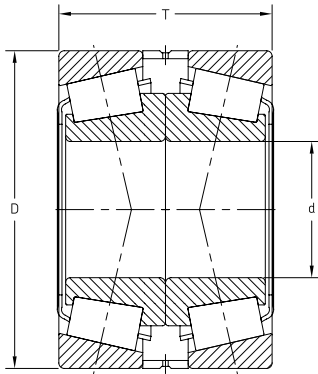
Paired single row  
 Standard and **SKF Explorer**  
 Series: 30206/DF – 30244/DF  
 Size: 30 mm – 220 mm  
 1.1811 in – 8.6614 in

Series: 30306/DF – 30330/DF  
 Size: 30 mm – 150 mm  
 1.1811 in – 5.9055 in



Designation	Principal dimensions						Basic load ratings				Speed rating		Mass	
	Bore		Outside diameter		Width		Dynamic		Static		Reference	Limiting		
	d		D		B		C		C <sub>0</sub>		speed	speed	kg	lb
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min		
30206/DF	30	1.1811	62	2.4409	34.5	1.3583	85 700	19 260	88 000	19 780	7 500	11 000	0.5	1.1
30208/DF	40	1.5748	80	3.1496	39.5	1.5551	130 000	29 210	137 000	30 790	5 600	8 500	0.9	1.9
30210/DF	50	1.9685	90	3.5433	43.5	1.7126	160 000	35 960	183 000	41 120	4 800	7 500	1.1	2.5
30211/DF	55	2.1654	100	3.9370	45.5	1.7913	190 000	42 700	212 000	47 640	4 500	6 700	1.5	3.2
30212/DF	60	2.3622	110	4.3307	47.5	1.8701	207 000	46 520	228 000	51 200	4 000	6 000	1.8	4.0
30213/DF	65	2.5591	120	4.7244	49.5	1.9488	242 000	54 400	270 000	60 700	3 600	5 600	2.3	5.1
30215/DF	75	2.9528	130	5.1181	54.5	2.1457	293 000	65 800	355 000	79 800	3 400	5 000	2.8	6.2
30217/DF	85	3.3465	150	5.9055	61.0	2.4016	370 000	83 100	440 000	98 900	3 000	4 300	4.2	9.4
30218/DF	90	3.5433	160	6.2992	65.0	2.5591	411 000	92 400	490 000	110 100	2 800	4 000	5.2	11.4
30220/DF	100	3.9370	180	7.0866	74.0	2.9134	521 000	117 100	640 000	143 800	2 400	3 600	7.5	16.6
30221/DF	105	4.1339	190	7.4803	78.0	3.0709	571 000	128 300	710 000	159 600	2 200	3 400	9.0	19.9
30222/DF	110	4.3307	200	7.8740	82.0	3.2283	645 000	144 900	800 000	179 800	2 200	3 200	10.5	23.0
30224/DF	120	4.7244	215	8.4646	87.0	3.4252	716 000	160 900	915 000	205 600	2 000	3 000	12.7	27.9
30226/DF	130	5.1181	230	9.0551	87.5	3.4449	774 000	173 900	980 000	220 200	1 800	2 800	14.1	31.2
30228/DF	140	5.5118	250	9.8425	91.5	3.6024	773 000	173 700	1 140 000	256 200	1 500	2 600	17.9	39.5
30230/DF	150	5.9055	270	10.6299	98.0	3.8583	781 000	175 500	1 120 000	251 700	1 400	2 400	22.1	48.8
30232/DF	160	6.2992	290	11.4173	104.0	4.0945	971 000	218 200	1 460 000	328 100	1 300	2 200	27.4	60.5
30234/DF	170	6.6929	310	12.2047	114.0	4.4882	1 126 000	253 000	1 730 000	388 800	1 200	2 000	34.6	76.3
30236/DF	180	7.0866	320	12.5984	114.0	4.4882	1 079 000	242 500	1 630 000	366 300	1 200	2 000	35.5	78.3
30238/DF	190	7.4803	340	13.3858	120.0	4.7244	1 308 000	293 900	2 000 000	449 400	1 100	1 800	42.6	94.0
30240/DF	200	7.8740	360	14.1732	128.0	5.0394	1 448 000	325 400	2 240 000	503 400	1 000	1 700	51.8	114.3
30244/DF	220	8.6614	400	15.7480	144.0	5.6693	1 816 000	408 100	2 800 000	629 200	950	1 600	71.8	158.2
30306/DF	30	1.1811	72	2.8346	41.5	1.6339	119 000	26 740	112 000	25 170	6 700	10 000	0.8	1.8
30307/DF	35	1.3780	80	3.1496	45.5	1.7913	152 000	34 160	150 000	33 710	6 000	9 000	1.1	2.3
30309/DF	45	1.7717	100	3.9370	54.5	2.1457	227 000	51 000	240 000	53 900	4 500	7 000	2.0	4.4
30311/DF	55	2.1654	120	4.7244	63.0	2.4803	302 000	67 900	325 000	73 000	3 800	5 600	3.3	7.2
30312/DF	60	2.3622	130	5.1181	67.0	2.6378	357 000	80 200	390 000	87 600	3 600	5 300	4.1	9.0
30320/DF	100	3.9370	215	8.4646	103.0	4.0551	739 000	166 100	980 000	220 200	1 900	3 200	16.9	37.2
30324/DF	120	4.7244	260	10.2362	119.0	4.6850	1 031 000	231 700	1 400 000	314 600	1 600	2 600	29.0	64.0
30326/DF	130	5.1181	280	11.0236	127.5	5.0197	1 165 000	261 800	1 600 000	359 600	1 400	2 400	35.2	77.7
30330/DF	150	5.9055	320	12.5984	144.0	5.6693	1 507 000	338 700	2 120 000	476 400	1 300	2 000	51.9	114.4

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



Paired single row  
 Standard and *SKF Explorer*  
 Series: 31305 /DF – 31330 X/DF  
 Size: 25 mm – 150 mm  
 0.9843 in – 5.9055 in

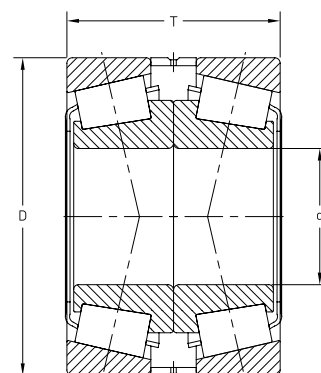
Series: 32007 X/DF – 32017 X/DF  
 Size: 35 mm – 85 mm  
 1.3780 in – 3.3465 in

Designation	Principal dimensions						Basic load ratings				Speed rating		Mass	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Reference speed	Limiting speed		
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min	kg	lb
31305/DF	25	0.9843	62	2.4409	36.5	1.4370	79 900	17 960	80 000	17 980	6 700	11 000	0.6	1.2
31306/DF	30	1.1811	72	2.8346	41.5	1.6339	100 000	22 470	100 000	22 470	5 600	9 500	0.8	1.8
31307/DF	35	1.3780	80	3.1496	45.5	1.7913	129 000	28 990	134 000	30 110	5 000	8 500	1.1	2.4
31308/DF	40	1.5748	90	3.5433	50.5	1.9882	156 000	35 060	163 000	36 630	4 500	7 500	1.5	3.3
31309/DF	45	1.7717	100	3.9370	54.5	2.1457	194 000	43 600	204 000	45 840	4 000	6 700	2.0	4.4
31310/DF	50	1.9685	110	4.3307	58.5	2.3031	224 000	50 300	240 000	53 900	3 600	6 000	2.6	5.6
31311/DF	55	2.1654	120	4.7244	63.0	2.4803	256 000	57 500	275 000	61 800	3 400	5 600	3.2	7.2
31312/DF	60	2.3622	130	5.1181	67.0	2.6378	303 000	68 100	335 000	75 300	3 000	5 300	4.0	8.9
31313/DF	65	2.5591	140	5.5118	72.0	2.8346	348 000	78 200	380 000	85 400	2 800	4 800	5.0	11.0
31314/DF	70	2.7559	150	5.9055	76.0	2.9921	393 000	88 300	440 000	98 900	2 600	4 500	6.1	13.4
31315/DF	75	2.9528	160	6.2992	80.0	3.1496	438 000	98 400	490 000	110 100	2 400	4 300	7.2	15.8
31316/DF	80	3.1496	170	6.6929	85.0	3.3465	473 000	106 300	530 000	119 100	2 400	4 000	8.7	19.1
31317/DF	85	3.3465	180	7.0866	89.0	3.5039	510 000	114 600	570 000	128 100	2 200	3 800	9.9	21.8
31318/DF	90	3.5433	190	7.4803	93.0	3.6614	486 000	109 200	630 000	141 600	1 900	3 400	11.4	25.2
31319/DF	95	3.7402	200	7.8740	99.0	3.8976	539 000	121 100	710 000	159 600	1 800	3 400	13.5	29.8
31320 X/DF	100	3.9370	215	8.4646	113.0	4.4488	685 000	153 900	930 000	209 000	1 700	3 000	18.4	40.6
31322 X/DF	110	4.3307	240	9.4488	126.0	4.9606	841 000	189 000	1 160 000	260 700	1 500	2 800	25.9	57.2
31324 X/DF	120	4.7244	260	10.2362	136.0	5.3543	992 000	222 900	1 400 000	314 600	1 400	2 400	32.5	71.7
31326 X/DF	130	5.1181	280	11.0236	144.0	5.6693	1 110 000	249 400	1 560 000	350 600	1 300	2 400	39.6	87.3
31328 X/DF	140	5.5118	300	11.8110	154.0	6.0630	1 264 000	284 000	1 800 000	404 500	1 200	2 200	49.1	108.3
31330 X/DF	150	5.9055	320	12.5984	164.0	6.4567	1 427 000	320 700	2 040 000	458 400	1 100	2 000	58.6	129.1
32007 X/DF	35	1.3780	62	2.4409	36.0	1.4173	89 700	20 160	108 000	24 270	7 000	10 000	0.5	1.0
32009 X/DF	45	1.7717	75	2.9528	40.0	1.5748	123 000	27 640	160 000	35 960	5 600	8 500	0.7	1.6
32010 X/DF	50	1.9685	80	3.1496	40.0	1.5748	129 000	28 990	176 000	39 550	5 300	8 000	0.8	1.7
32011 X/DF	55	2.1654	90	3.5433	46.0	1.8110	170 000	38 200	232 000	52 100	4 500	7 000	1.2	2.5
32012 X/DF	60	2.3622	95	3.7402	46.0	1.8110	173 000	38 880	245 000	55 100	4 300	6 700	1.2	2.7
32013 X/DF	65	2.5591	100	3.9370	46.0	1.8110	176 000	39 550	255 000	57 300	4 000	6 000	1.3	2.9
32014 X/DF	70	2.7559	110	4.3307	50.0	1.9685	214 000	48 090	305 000	68 500	3 800	5 600	1.8	3.9
32016 X/DF	80	3.1496	125	4.9213	58.0	2.2835	288 000	64 700	430 000	96 600	3 200	5 000	2.7	5.9
32017 X/DF	85	3.3465	130	5.1181	58.0	2.2835	293 000	65 800	450 000	101 100	3 200	4 800	2.8	6.2

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

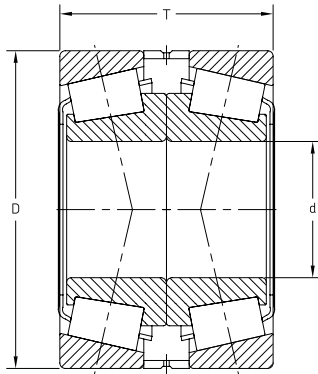
Paired single row  
 Standard and **SKF Explorer**  
 Series: 32018 X/DF – 32064 X/DF  
 Size: 90 mm – 320 mm  
 3.5433 in – 12.5984 in

Series: 32206 /DF – 32221 /DF  
 Size: 30 mm – 105 mm  
 1.1811 in – 4.1339 in



Designation	Principal dimensions						Basic load ratings				Speed rating		Mass	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Reference speed	Limiting speed		
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min	kg	lb
32018 X/DF	90	3.5433	140	5.5118	64.0	2.5197	356 000	80 000	540 000	121 300	3 000	4 300	3.6	8.0
32019 X/DF	95	3.7402	145	5.7087	64.0	2.5197	353 000	79 300	540 000	121 300	2 800	4 300	3.8	8.4
32020 X/DF	100	3.9370	150	5.9055	64.0	2.5197	359 000	80 700	560 000	125 800	2 600	4 000	3.9	8.6
32021 X/DF	105	4.1339	160	6.2992	70.0	2.7559	426 000	95 700	670 000	150 600	2 600	3 800	5.0	11.1
32022 X/DF	110	4.3307	170	6.6929	76.0	2.9921	494 000	111 000	780 000	175 300	2 400	3 600	6.3	13.9
32024 X/DF	120	4.7244	180	7.0866	76.0	2.9921	513 000	115 300	830 000	186 500	2 200	3 400	6.8	14.9
32026 X/DF	130	5.1181	200	7.8740	90.0	3.5433	666 000	149 700	1 080 000	242 700	2 000	3 000	10.2	22.5
32028 X/DF	140	5.5118	210	8.2677	90.0	3.5433	692 000	155 500	1 160 000	260 700	1 900	2 800	10.9	24.0
32030 X/DF	150	5.9055	225	8.8583	96.0	3.7795	782 000	175 700	1 320 000	296 600	1 800	2 600	13.3	29.2
32032 X/DF	160	6.2992	240	9.4488	102.0	4.0157	912 000	204 900	1 560 000	350 600	1 600	2 400	16.2	35.7
32034 X/DF	170	6.6929	260	10.2362	114.0	4.4882	1 071 000	240 700	1 830 000	411 200	1 500	2 200	21.7	47.9
32036 X/DF	180	7.0866	280	11.0236	128.0	5.0394	1 360 000	305 600	2 320 000	521 300	1 400	2 200	29.2	64.5
32038 X/DF	190	7.4803	290	11.4173	128.0	5.0394	1 381 000	310 300	2 400 000	539 300	1 300	2 000	30.6	67.5
32040 X/DF	200	7.8740	310	12.2047	140.0	5.5118	1 372 000	308 300	2 750 000	618 000	1 100	1 900	39.0	86.0
32044 X/DF	220	8.6614	340	13.3858	152.0	5.9843	1 637 000	367 900	3 350 000	752 800	1 000	1 700	51.0	112.4
32048 X/DF	240	9.4488	360	14.1732	152.0	5.9843	1 695 000	380 900	3 550 000	797 800	950	1 600	54.3	119.7
32052 X/DF	260	10.2362	400	15.7480	174.0	6.8504	2 127 000	478 000	4 400 000	988 800	850	1 400	78.8	173.7
32056 X/DF	280	11.0236	420	16.5354	174.0	6.8504	2 208 000	496 200	4 750 000	1 067 400	800	1 300	84.0	185.2
32060 X/DF	300	11.8110	460	18.1102	200.0	7.8740	2 818 000	633 300	6 000 000	1 348 300	750	1 200	119.0	262.4
32064 X/DF	320	12.5984	480	18.8976	200.0	7.8740	2 852 000	640 900	6 200 000	1 393 300	700	1 100	104.0	229.3
32206 /DF	30	1.1811	62	2.4409	42.5	1.6732	106 000	23 820	116 000	26 070	7 500	11 000	0.6	1.3
32207 /DF	35	1.3780	72	2.8346	48.5	1.9094	139 000	31 240	156 000	35 060	6 300	9 500	0.9	2.0
32209 /DF	45	1.7717	85	3.3465	49.5	1.9488	169 000	37 980	196 000	44 040	5 300	8 000	1.2	2.6
32210 /DF	50	1.9685	90	3.5433	49.5	1.9488	173 000	38 880	200 000	44 940	4 800	7 500	1.3	2.8
32211 /DF	55	2.1654	100	3.9370	53.5	2.1063	222 000	49 890	260 000	58 400	4 300	6 700	1.7	3.8
32212 /DF	60	2.3622	110	4.3307	59.5	2.3425	266 000	59 800	320 000	71 900	4 000	6 000	2.4	5.3
32213 /DF	65	2.5591	120	4.7244	65.5	2.5787	320 000	71 900	390 000	87 600	3 600	5 600	3.1	6.8
32214 /DF	70	2.7559	125	4.9213	66.5	2.6181	334 000	75 100	415 000	93 300	3 400	5 300	3.3	7.2
32215 /DF	75	2.9528	130	5.1181	66.5	2.6181	337 000	75 700	425 000	95 500	3 200	5 000	3.4	7.5
32216 /DF	80	3.1496	140	5.5118	70.5	2.7756	391 000	87 900	490 000	110 100	3 000	4 500	4.2	9.3
32217 /DF	85	3.3465	150	5.9055	77.0	3.0315	451 000	101 300	570 000	128 100	2 800	4 300	5.4	11.9
32218 /DF	90	3.5433	160	6.2992	85.0	3.3465	529 000	118 900	680 000	152 800	2 600	4 000	6.9	15.1
32219 /DF	95	3.7402	170	6.6929	91.0	3.5827	597 000	134 200	780 000	175 300	2 600	3 800	8.4	18.5
32220 /DF	100	3.9370	180	7.0866	98.0	3.8583	668 000	150 100	880 000	197 800	2 400	3 600	10.2	22.5
32221 /DF	105	4.1339	190	7.4803	106.0	4.1732	760 000	170 800	1 020 000	229 200	2 200	3 400	12.4	27.4

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



Paired single row  
 Standard and *SKF Explorer*  
 Series: 32222/DF – 32260/DF  
 Size: 110 mm – 300 mm  
 4.3307 in – 11.8110 in

Series: 32312/DF – 32324/DF  
 Size: 60 mm – 120 mm  
 2.3622 in – 4.7244 in

Series: 32920/DF – 32972/DF  
 Size: 100 mm – 360 mm  
 3.9370 in – 14.1732 in

Designation	Principal dimensions						Basic load ratings				Speed rating		Mass	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Reference speed	Limiting speed		
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min	kg	lb
32222/DF	110	4.3307	200	7.8740	112.0	4.4094	842 000	189 200	1 140 000	256 200	2 200	3 200	14.5	32.1
32224/DF	120	4.7244	215	8.4646	123.0	4.8425	983 000	220 900	1 400 000	314 600	2 000	3 000	18.6	41.0
32226/DF	130	5.1181	230	9.0551	135.5	5.3346	1 012 000	227 400	1 660 000	373 000	1 600	2 800	23.1	50.9
32228/DF	140	5.5118	250	9.8425	143.5	5.6496	1 185 000	266 300	2 000 000	449 400	1 500	2 600	29.3	64.6
32230/DF	150	5.9055	270	10.6299	154.0	6.0630	1 341 000	301 300	2 280 000	512 400	1 400	2 400	37.3	82.2
32232/DF	160	6.2992	290	11.4173	168.0	6.6142	1 602 000	360 000	2 800 000	629 200	1 300	2 200	48.0	105.7
32234/DF	170	6.6929	310	12.2047	182.0	7.1654	1 843 000	414 200	3 250 000	730 300	1 200	2 000	59.3	130.9
32236/DF	180	7.0866	320	12.5984	182.0	7.1654	1 833 000	411 900	3 250 000	730 300	1 100	1 900	61.1	134.6
32240/DF	200	7.8740	360	14.1732	208.0	8.1890	2 229 000	500 900	4 000 000	898 900	1 000	1 700	88.1	194.3
32244/DF	220	8.6614	400	15.7480	228.0	8.9764	2 949 000	662 700	5 400 000	1 213 500	900	1 500	123.2	271.8
32248/DF	240	9.4488	440	17.3228	254.0	10.0000	3 300 000	741 600	6 550 000	1 471 900	1 000	1 500	172.0	379.3
32252/DF	260	10.2362	480	18.8976	274.0	10.7874	4 013 000	901 800	7 350 000	1 651 700	750	1 200	213.0	469.7
32256/DF	280	11.0236	500	19.6850	274.0	10.7874	2 410 000	541 600	7 800 000	1 752 800	700	1 200	226.0	498.3
32260/DF	300	11.8110	540	21.2598	280.0	11.0236	2 935 000	659 600	9 500 000	2 134 800	630	1 100	290.0	639.5
32312/DF	60	2.3622	130	5.1181	97.0	3.8189	483 000	108 500	585 000	131 500	3 200	5 300	6.1	13.4
32315/DF	75	2.9528	160	6.2992	116.0	4.5669	713 000	160 200	880 000	197 800	2 600	4 300	10.8	23.8
32316/DF	80	3.1496	170	6.6929	123.0	4.8425	797 000	179 100	1 000 000	224 700	2 600	4 000	12.8	28.3
32318/DF	90	3.5433	190	7.4803	135.0	5.3150	835 000	187 600	1 220 000	274 200	2 200	3 600	17.5	38.7
32320/DF	100	3.9370	215	8.4646	155.0	6.1024	1 057 000	237 500	1 560 000	350 600	1 900	3 200	26.1	57.6
32322/DF	110	4.3307	240	9.4488	169.0	6.6535	1 158 000	260 200	1 660 000	373 000	1 700	2 800	35.0	77.1
32324/DF	120	4.7244	260	10.2362	181.0	7.1260	1 466 000	329 400	2 240 000	503 400	1 600	2 600	45.0	99.3
32920/DF	100	3.9370	140	5.5118	50.0	1.9685	252 000	56 600	405 000	91 000	2 800	4 300	2.4	5.2
32926/DF	130	5.1181	180	7.0866	64.0	2.5197	420 000	94 400	735 000	165 200	2 200	3 200	4.9	10.9
32928/DF	140	5.5118	190	7.4803	64.0	2.5197	432 000	97 100	780 000	175 300	2 000	3 000	5.2	11.5
32936/DF	180	7.0866	250	9.8425	90.0	3.5433	746 000	167 600	1 460 000	328 100	1 500	2 200	13.8	30.5
32938/DF	190	7.4803	260	10.2362	90.0	3.5433	760 000	170 800	1 530 000	343 800	1 400	2 200	14.5	32.0
32944/DF	220	8.6614	300	11.8110	102.0	4.0157	1 030 000	231 500	2 000 000	449 400	1 200	1 900	21.1	46.5
32948/DF	240	9.4488	320	12.5984	102.0	4.0157	1 069 000	240 200	2 160 000	485 400	1 200	1 700	22.6	49.9
32960/DF	300	11.8110	420	16.5354	152.0	5.9843	1 790 000	402 200	4 500 000	1 011 200	800	1 400	65.5	144.4
32964/DF	320	12.5984	440	17.3228	152.0	5.9843	1 982 000	445 400	4 650 000	1 044 900	750	1 200	69.0	152.1
32968/DF	340	13.3858	460	18.1102	152.0	5.9843	1 995 000	448 300	4 800 000	1 078 700	700	1 200	73.0	161.0
32972/DF	360	14.1732	480	18.8976	152.0	5.9843	2 043 000	459 100	5 100 000	1 146 100	670	1 100	302.0	665.9

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

Paired single row

SKF Explorer

Series: 33010/DF – 33024/DF

Size: 50 mm – 120 mm

1.9685 in – 4.7244 in

Series: 33108/DF – 33122/DF

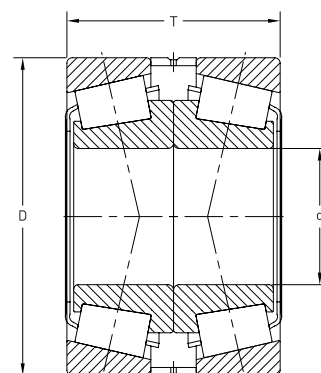
Size: 40 mm – 110 mm

1.5748 in – 4.3307 in

Series: 33207/DF – 33217/DF

Size: 35 mm – 85 mm

1.3780 in – 3.3465 in



Designation	Principal dimensions						Basic load ratings				Speed rating		Mass	
	Bore d		Outside diameter D		Width B		Dynamic C		Static C <sub>0</sub>		Reference speed	Limiting speed		
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min	kg	lb
33010/DF	50	1.9685	80	3.1496	48.0	1.8898	145 000	32 580	204 000	45 840	5 300	8 000	0.9	2.0
33011/DF	55	2.1654	90	3.5433	54.0	2.1260	191 000	42 920	270 000	60 700	4 500	7 000	1.4	3.0
33013/DF	65	2.5591	100	3.9370	54.0	2.1260	204 000	45 840	310 000	69 700	4 000	6 300	1.5	3.4
33014/DF	70	2.7559	110	4.3307	62.0	2.4409	273 000	61 300	400 000	89 900	3 800	5 600	2.2	4.8
33015/DF	75	2.9528	115	4.5276	62.0	2.4409	286 000	64 300	455 000	102 200	3 600	5 300	2.4	5.3
33017/DF	85	3.3465	130	5.1181	72.0	2.8346	382 000	85 800	620 000	139 300	3 200	4 800	3.5	7.8
33018/DF	90	3.5433	140	5.5118	78.0	3.0709	457 000	102 700	710 000	159 600	3 000	4 500	4.5	9.9
33019/DF	95	3.7402	145	5.7087	78.0	3.0709	467 000	104 900	735 000	165 200	2 800	4 300	4.7	10.3
33024/DF	120	4.7244	180	7.0866	96.0	3.7795	611 000	137 300	1 080 000	242 700	2 200	3 400	8.6	18.9
33108/DF	40	1.5748	75	2.9528	52.0	2.0472	167 000	37 530	208 000	46 740	6 000	9 000	1.0	2.3
33114/DF	70	2.7559	120	4.7244	74.0	2.9134	361 000	81 100	500 000	112 400	3 600	5 300	3.4	7.6
33115/DF	75	2.9528	125	4.9213	74.0	2.9134	370 000	83 100	530 000	119 100	3 400	5 000	3.6	8.0
33116/DF	80	3.1496	130	5.1181	74.0	2.9134	379 000	85 200	560 000	125 800	3 200	4 800	3.8	8.4
33122/DF	110	4.3307	180	7.0866	112.0	4.4094	781 000	175 500	1 250 000	280 900	2 200	3 400	11.3	25.0
33207/DF	35	1.3780	72	2.8346	56.0	2.2047	178 000	40 000	212 000	47 640	6 300	9 500	1.1	2.4
33210/DF	50	1.9685	90	3.5433	64.0	2.5197	243 000	54 600	320 000	71 900	4 800	7 000	1.8	3.9
33212/DF	60	2.3622	110	4.3307	76.0	2.9921	354 000	79 600	475 000	106 700	3 800	6 000	3.2	7.0
33215/DF	75	2.9528	130	5.1181	82.0	3.2283	436 000	98 000	600 000	134 800	3 200	4 800	4.5	9.9
33216/DF	80	3.1496	140	5.5118	92.0	3.6220	527 000	118 400	750 000	168 500	3 000	4 500	6.0	13.1
33217/DF	85	3.3465	150	5.9055	98.0	3.8583	606 000	136 200	850 000	191 000	2 800	4 300	7.3	16.1