

# USB Bearings

- PRECISION
- PERFECTION
- PERFORMANCE



ISO 9001:2015 Certified

MANUFACTURER OF

Spherical Roller, Taper Roller, Cylindrical,  
Ball, Needle & Odd Type of Bearings

**Shaligram Engineering Co.**

## ABOUT US

Shaligram Eng Co, we are one of the leading manufacturers in Rajkot. Our company has experience of more than 50 years in the field of bearing manufacturing. We are an ISO 9001:2015 certified company.

At Shaligram Eng Co, we are manufacturing high quality bearings under our well known brand USB. To manufacture high quality bearings, we take care from the beginning by selecting genuine material from the genuine and reliable vendors.

Our well experienced, qualified and trained team follows our strict quality program to manufacture high quality bearings as per the international standards.

### Our Vision

To be reckoned as one of the leading players in the Industrial Bearings segment in India.

### Our Mission

To be the 'chosen one' among our customers by serving them with World-Class products & services at competitive prices and Just In Time (JIT) delivery. To strengthen the presence in market by building a strong brand image through sustainable upgradation in quality and services. To create a safe and healthy environment through optimal use of resources and provides pollution free work place.



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## INFRASTRUCTURE

Our manufacturing facility is very well equipped with specialized , precise and latest equipments having an in house precision grinding and assembly shop. Our manufacturing facility is 400 sq yard. We check and calibrate the machine performance and accuracy to ensure the production of quality bearings.





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# QUALITY

## Our quality policy

We at USB, individually and collectively are committed to seeing our customers delighted and satisfied with the perfection of products we provide as a manufacturer .

USB products are known for their precision, performance and strength. Our bearings have superior life cycle and unmatched performance. Our products are made from high quality bearing steel. Our stringent quality assurance system has earned the company the following quality certification:

ISO 9000:2015



Expiry Date - 16 October 2020



## PRODUCTS

For Smooth and friction free running of any machine it requires high performance and high accurate bearings.

USB products give maximum performance even under harsh conditions like extreme heat, speed, pressure, impact, load etc.

Our products are applied in the following industries :

- Oilfield Machineries
- Mining
- Power Generation
- General Engineering
- Heavy Automotive
- Rolling Mills
- Pulp & Paper
- Ginning
- Pump & Motors
- Earth Moving
- and many more ...

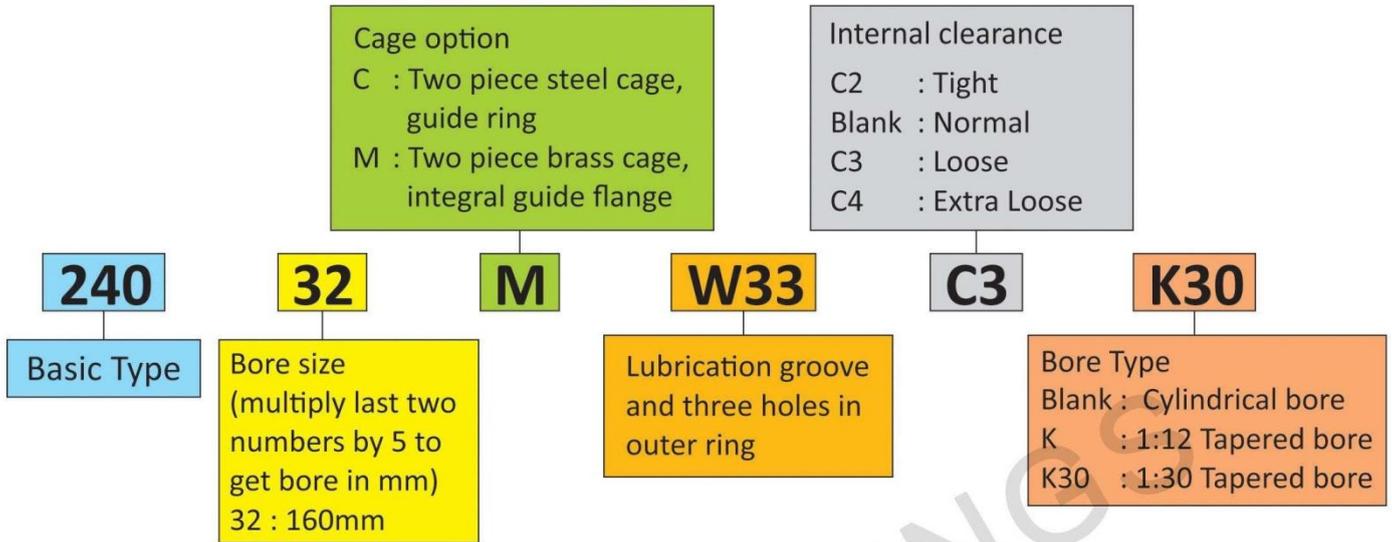
Our Product Range Includes ...

- SPHERICAL ROLLER BEARINGS
- SPHERICAL ROLLER THRUST BEARINGS
- ANGULAR CONTACT BEARINGS (inch)
- DOUBLE ROW ANGULAR CONTACT BEARINGS
- CYLINDRICAL ROLLER BEARINGS (NJ, NU, N)
- TAPER ROLLER BEARINGS

**USB Nomenclature System**

Illustration

Bearing No - **240 32 M W33 C3 K30**



Suffix	Definition
<b>C</b>	"Spherical roller bearing with a flange less ring, symmetrical rollers, loose guide ring and window type steel cage
<b>C1</b>	Internal clearance smaller than C2
<b>C2</b>	Internal clearance smaller than Normal
<b>C3</b>	Internal clearance greater than Normal
<b>C4</b>	Internal clearance greater than C3
<b>C5</b>	Internal clearance greater than C4
<b>K</b>	Bearing with tapered bore, taper 1:12
<b>K30</b>	Bearing with tapered bore, taper 1:30
<b>M</b>	Machined brass cage
<b>MA</b>	Machined brass cage, outer ring riding
<b>W33</b>	Lubrication groove and three holes in outer ring

**TOLERANCE & SYMBOL**

<b>d</b>	Nominal bore diameter
<b>d<sub>mp</sub></b>	Mean bore diameter : arithmetical mean of the largest and smallest single bore diameters in one plane.
<b>V<sub>dmp</sub></b>	Mean bore diameter variation : Difference between the largest and smallest mean bore diameters of one ring or washer.
<b>D</b>	Nominal out side diameter.
<b>D<sub>mp</sub></b>	Mean out side diameter : Arithmetical mean of the largest and smallest single out side diameters in one plane.
<b>V<sub>Dmp</sub></b>	Mean out side diameter variation : Difference between the largest and smallest mean outside diameters of one ring or washer.
<b>B<sub>s</sub> , C<sub>s</sub></b>	Ring width of inner ring and outer ring respectively.
<b>V<sub>Bs</sub> , V<sub>Cs</sub></b>	Ring width variation :Difference between the largest and smallest single width of inner ring and of outer ring ,respectively.
<b>K<sub>ia</sub> , K<sub>ea</sub></b>	Radial runout of assembled bearing inner ring and assembled bearing outer ring, respectively.
<b>Δd<sub>mp</sub></b>	Deviation of mean inside diameter from the nominal
<b>ΔD<sub>mp</sub></b>	Deviation of the mean outside diameter from the nominal
<b>ΔB<sub>s</sub> , ΔC<sub>s</sub></b>	Deviation of single, inner ring or outer ring width, from the nominal



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**TOLERANCE & SYMBOL Radial Bearings ( Except taper roller bearings )**

**Outer Rings**

D		$\Delta D_{mp}$		$V_{Dmp}$	$\Delta C_s$		$V_{cs}$	$K_{ea}$
Over	Incl	High	Low	Max	High	Low	Max	Max
mm	mm	$\mu m$	$\mu m$	$\mu m$	$\mu m$	$\mu m$	$\mu m$	$\mu m$
18	30	0	-9	7	0	-120	20	15
30	50	0	-11	8	0	-120	20	20
50	80	0	-13	10	0	-120	20	25
80	120	0	-15	11	0	-120	20	35
120	150	0	-18	14	0	-120	20	40
150	180	0	-25	19	0	-120	20	45
180	250	0	-30	23	0	-150	25	50
250	315	0	-35	26	0	-200	25	60
315	400	0	-40	30	0	-200	25	70

**Inner Rings**

d		$\Delta d_{mp}$		$V_{dmp}$	$\Delta B_s$		$V_{Bs}$	$K_{ia}$
Over	Incl	High	Low	Max	High	Low	Max	Max
mm	mm	$\mu m$	$\mu m$	$\mu m$	$\mu m$	$\mu m$	$\mu m$	$\mu m$
18	30	0	-10	8	0	-120	20	13
30	50	0	-12	9	0	-120	20	15
50	80	0	-15	11	0	-150	25	20
80	120	0	-20	15	0	-200	25	25
120	180	0	-25	19	0	-250	30	30
180	250	0	-30	23	0	-300	30	40

**NORMAL TOLERANCES : Taper Roller Bearings**

**Outer Ring/Cup**

D		$\Delta D_{mp}$		$V_{Dmp}$	$\Delta C_s$		$K_{ea}$
Over	Incl	High	Low	Max	High	Low	Max
mm	mm	$\mu m$	$\mu m$	$\mu m$	$\mu m$	$\mu m$	$\mu m$
18	30	0	-12	9	Values are identical to those for inner ring of same bearing		20
30	50	0	-14	11			20
50	80	0	-16	12			20
80	120	0	-18	14			20
120	150	0	-20	15			20
150	180	0	-25	19			20
180	250	0	-30	23			25
250	315	0	-35	26			25
315	400	0	-40	30	25		

**Inner Ring/Cone**

d		$\Delta d_{mp}$		$V_{dmp}$	$\Delta B_s$		$K_{ia}$
Over	Incl.	High	Low	Max	High	Low	Max
mm	mm	$\mu m$	$\mu m$	$\mu m$	$\mu m$	$\mu m$	$\mu m$
18	30	0	-12	9	0	-120	18
30	50	0	-12	9	0	-120	20
50	80	0	-15	11	0	-150	25
80	120	0	-20	15	0	-200	30
120	180	0	-25	19	0	-250	35
180	250	0	-30	23	0	-300	50

**Normal Tolerances Radial Bearings (Inch Series)**

**Outer Rings**

D		$\Delta D_{mp}$		Width	
Over	Incl	Max	Mini	Max	Min
inch	inch	inch	inch	inch	inch
1	2	-0.0003	-0.0008	0	-0.005
2	3	-0.0005	-0.0010	0	-0.005
3	5	-0.0008	-0.0013	0	-0.005
5	12	-0.0013	-0.0018	0	-0.005

**Inner Rings**

d		$\Delta d_{mp}$		Width	
Over	Incl	Max	Mini	Max	Min
inch	inch	inch	inch	inch	inch
1	6	+0.0002	-0.0003	0	-0.005
6	8	+0.0002	-0.0005	0	-0.005
8	12	+0.0002	-0.0005	0	-0.010

**RADIAL INTERNAL CLEARANCE  
DEEP GROOVE BALL BEARING**

BORE DIAMETER		Radial internal clearance							
d		C2		Normal		C3		C4	
Over	Incl	Max	Min	Max	Max	Min	Max	Max	Max
mm	mm	$\mu\text{m}$	$\mu\text{m}$	$\mu\text{m}$	$\mu\text{m}$	$\mu\text{m}$	$\mu\text{m}$	$\mu\text{m}$	$\mu\text{m}$
18	24	0	10	5	20	13	28	20	36
24	30	1	11	5	20	13	28	23	41
30	40	1	11	6	20	15	33	28	46
40	50	1	11	6	23	18	36	30	51
50	65	1	15	8	28	23	43	38	61
65	80	1	15	10	30	25	51	46	71
80	100	1	18	12	36	30	58	53	84
100	120	2	20	15	41	36	66	61	97
120	140	2	23	18	48	41	81	71	114
140	160	2	23	18	53	46	91	81	130
160	180	2	25	20	61	53	102	91	147
180	200	2	30	25	71	63	117	107	163
200	225	2	35	30	85	77	137	127	195
225	250	2	40	33	95	87	157	147	225

**RADIAL INTERNAL CLEARANCE**  
**CYLINDRICAL ROLLER BEARING**

BORE DIAMETER		Radial internal clearance							
d		C2		Normal		C3		C4	
Over	Incl	Max	Mini	Max	Max	Mini	Max	Max	Max
mm	mm	µm	µm	µm	µm	µm	µm	µm	µm
18	24	10	20	20	30	35	45	45	55
24	30	10	25	25	35	40	50	50	60
30	40	12	25	25	40	45	55	55	70
40	50	15	30	30	45	50	65	65	80
50	65	15	35	35	50	55	75	75	90
65	80	20	40	40	60	70	90	90	110
80	100	25	45	45	70	80	105	105	125
100	120	25	50	50	80	95	120	120	145
120	140	30	60	60	90	105	135	135	160
140	160	35	65	65	100	115	150	150	180
160	180	35	75	75	110	125	165	165	200
180	200	40	80	80	120	140	180	180	220

**AXIAL INTERNAL CLEARANCE**  
**DOUBLE ROW ANGULAR CONTACT BALL BEARINGS**

BORE DIAMETER		Series 32 & 33					
d		Axial internal clearance					
d		C2		Normal		C3	
Over	Incl	Max	Mini	Max	Max	Mini	Max
mm	mm	µm	µm	µm	µm	µm	µm
18	24	2	14	7	25	16	34
24	30	2	15	8	27	18	37
30	40	2	16	9	29	21	40
40	50	2	18	11	33	23	44
50	65	3	22	13	36	26	48
65	80	3	24	15	40	30	54
80	100	3	26	18	46	35	63
100	110	4	30	22	53	42	73

Radial clearance = 0.6 x Axial clearance.



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**RADIAL INTERNAL CLEARANCE**

*FOR SPHERICAL ROLLER BEARINGS WITH CYLINDRICAL BORE.*

BORE DIAMETER		Radial internal clearance							
d		C2		Normal		C3		C4	
Over	Incl.	Max	Mini.	Max.	Max	Mini.	Max	Max	Max
mm	mm	µm	µm	µm	µm	µm	µm	µm	µm
18	24	10	20	20	35	35	45	45	60
24	30	15	25	25	40	40	55	55	75
30	40	15	30	30	45	45	60	60	80
40	50	20	35	35	55	55	75	75	100
50	65	20	40	40	65	65	90	90	120
65	80	30	50	50	80	80	110	110	145
80	100	35	60	60	100	100	135	135	180
100	120	40	75	75	120	120	160	160	210
120	140	50	95	95	145	145	190	190	240
140	160	60	110	110	170	170	220	220	280
160	180	65	120	120	180	180	240	240	310
180	200	70	130	130	200	200	260	260	340
200	225	80	140	140	220	220	290	290	380
225	250	90	150	150	240	240	320	320	420

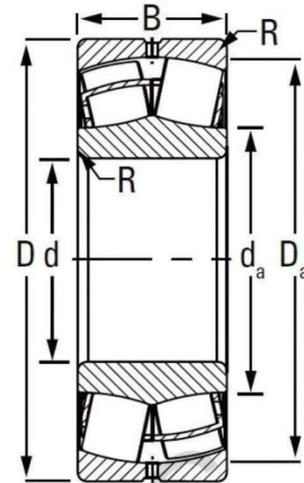
**RADIAL INTERNAL CLEARANCE**

*FOR SPHERICAL ROLLER BEARINGS WITH TAPERED BORE.*

BORE DIAMETER		Radial internal clearance							
d		C2		Normal		C3		C4	
Over	Incl.	Max	Mini.	Max.	Max	Mini.	Max	Max	Max
mm	mm	µm	µm	µm	µm	µm	µm	µm	µm
30	40	25	35	35	50	50	65	65	85
40	50	30	45	45	60	60	80	80	100
50	65	40	55	55	75	75	95	95	120
65	80	50	70	70	95	95	120	120	150
80	100	55	80	80	110	110	140	140	180
100	120	65	100	100	135	135	170	170	220
120	140	80	120	120	160	160	200	200	260
140	160	90	130	130	180	180	230	230	300
160	180	100	140	140	200	200	260	260	340
180	200	110	160	160	220	220	290	290	370
200	225	120	180	180	250	250	320	320	410
225	250	140	200	200	270	270	350	350	450

**SPHERICAL ROLLER BEARINGS**

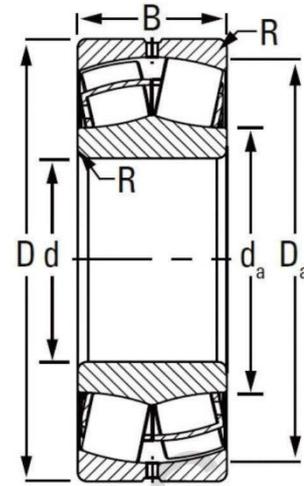
SERIES : 213 C & 213 CK



Bearing Number		Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass
Cylindrical Bore	Taper Bore	Bore d mm	OD D mm	Width B mm	Dynamic C	Static Co	Grease	Oil	(Kg)
21304 C W33	21304 CK W33	20.00	52.00	15.00	27500	16200	6800	8800	0.160
21305 C W33	21305 CK W33	25.00	62.00	17.00	37200	21600	5300	6800	0.250
21306 C W33	21306 CK W33	30.00	72.00	19.00	50000	32000	4800	6000	0.380
21307 C W33	21307 CK W33	35.000	80.000	21.000	59000	37000	4200	5360	0.510
21308 C W33	21308 CK W33	40.000	90.000	23.000	38500	49000	3600	4480	0.710
21309 C W33	21309 CK W33	45.000	100.000	25.000	90000	58900	3400	4200	0.950
21310 C W33	21310 CK W33	50.000	110.000	27.000	108000	73300	3000	3800	1.200
21311 C W33	21311 CK W33	55.000	120.000	29.000	124000	83700	2700	3400	1.600
21312 C W33	21312 CK W33	60.000	130.000	31.000	145000	102000	2400	3000	1.950
21313 C W33	21313 CK W33	65.000	140.000	33.000	165000	120000	2200	2800	2.450
21314 C W33	21314 CK W33	70.000	150.000	35.000	186000	135000	2080	2700	3.000
21315 C W33	21315 CK W33	75.000	160.000	37.000	211000	153000	1900	2560	3.550
21316 C W33	21316 CK W33	80.000	170.000	39.000	232000	171000	1760	2400	4.200
21317 C W33	21317 CK W33	85.000	180.000	41.000	264000	194000	1600	2200	5.000
21318 C W33	21318 CK W33	90.000	190.000	43.000	290000	216000	1500	2000	5.800
21319 C W33	21319 CK W33	95.000	200.000	45.000	316000	243000	1400	1900	7.150
21320 C W33	21320 CK W33	100.000	215.000	47.000	346000	270000	1360	1760	8.800

**SPHERICAL ROLLER BEARINGS**

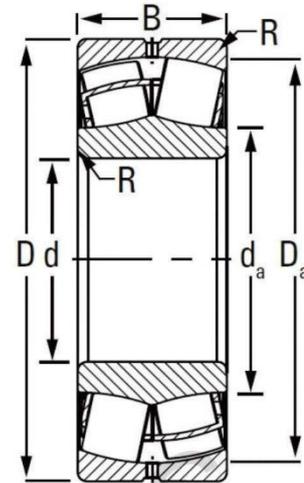
SERIES : 222 C & 222 CK



Bearing Number		Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass
Cylindrical Bore	Taper Bore	Bore d mm	OD D mm	Width B mm	Dynamic C	Static Co	Grease	Oil	(Kg)
22205 C W33	22205 CK W33	25.000	52.000	18.000	32000	19400	6800	8800	0.180
22206 C W33	22206 CK W33	30.000	62.000	20.000	44000	27000	6000	7600	0.280
22207 C W33	22207 CK W33	35.000	72.000	23.000	57000	36000	5000	6400	0.430
22208 C W33	22208 CK W33	40.000	80.000	23.000	66000	43000	4800	6000	0.520
22209 C W33	22209 CK W33	45.000	85.000	23.000	69000	46000	4200	5300	0.560
22210 C W33	22210 CK W33	50.000	90.000	23.000	72000	48000	4000	5000	0.600
22211 C W33	22211 CK W33	55.000	100.000	25.000	89000	60000	3600	4400	0.820
22212 C W33	22212 CK W33	60.000	110.000	28.000	110000	75000	3200	4000	1.100
22213 C W33	22213 CK W33	65.000	120.000	31.000	130000	90000	3000	3800	1.450
22214 C W33	22214 CK W33	70.000	125.000	31.000	133000	94000	2800	3600	1.550
22215 C W33	22215 CK W33	75.000	130.000	31.000	138000	99000	2700	3400	1.650
22216 C W33	22216 CK W33	80.000	140.000	33.000	158000	114000	2500	3200	2.050
22217 C W33	22217 CK W33	85.000	150.000	36.000	181000	131000	2400	3000	2.550
22218 C W33	22218 CK W33	90.000	160.000	40.000	219000	164000	2000	2700	3.250
22219 C W33	22219 CK W33	95.000	170.000	43.000	253000	190000	1900	2500	4.000
22220 C W33	22220 CK W33	100.000	180.000	46.000	279000	212000	1700	2400	4.850
22222 C W33	22222 CK W33	110.000	200.000	53.000	367000	288000	1600	2200	7.000
22224 C W33	22224 CK W33	120.000	215.000	58.000	419000	337000	1500	2100	8.700
22226 C W33	22226 CK W33	130.000	230.000	64.000	496000	405000	1400	1900	11.000
22228 C W33	22228 CK W33	140.000	250.000	68.000	558000	450000	1360	1760	14.000
22230 C W33	22230 CK W33	150.000	270.000	73.000	662000	558000	1280	1600	18.000
22232 C W33	22232 CK W33	160.000	290.000	80.000	776000	661000	1200	1500	22.500
22234 C W33	22234 CK W33	170.000	310.000	86.000	880000	747000	1000	1300	28.500
22236 C W33	22236C K W33	180.000	320.000	86.000	909000	792000	1040	1300	29.500
22238 C W33	22238C K W33	190.000	340.000	92.000	999000	868000	960	1280	36.500
22240 C W33	22240C K W33	200.000	360.000	98.000	1143000	990000	880	1200	43.500

**SPHERICAL ROLLER BEARINGS**

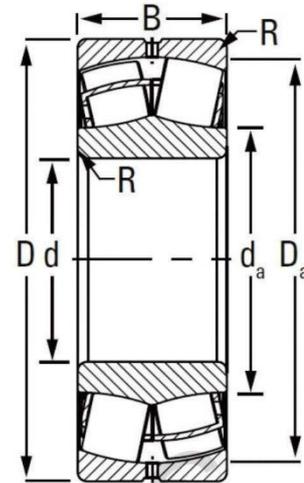
SERIES : 223 C & 223 CK



Bearing Number		Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass
Cylindrical Bore	Taper Bore	Bore d mm	OD D mm	Width B mm	Dynamic C	Static Co	Grease	Oil	(Kg)
22307 C W33	22307 CK W33	35.000	80.000	31.000	94000	60000	4000	5000	0.730
22308 C W33	22308 CK W33	40.000	90.000	33.000	101000	66000	3600	4500	1.000
22309 C W33	22309 CK W33	45.000	100.000	36.000	124000	85000	3000	3800	1.350
22310 C W33	22310 CK W33	50.000	110.000	40.000	158000	108000	2700	3400	1.850
22311 C W33	22311 CK W33	55.000	120.000	43.000	179000	123000	2500	3200	2.350
22312 C W33	22312 CK W33	60.000	130.000	46.000	211000	149000	2400	3000	2.950
22313 C W33	22313 CK W33	65.000	140.000	48.000	227000	162000	2000	2700	3.550
22314 C W33	22314 CK W33	70.000	150.000	51.000	280000	205000	1900	2500	4.300
22315 C W33	22315 CK W33	75.000	160.000	55.000	315000	229000	1700	2400	5.250
22316 C W33	22316 CK W33	80.000	170.000	58.000	336000	247000	1600	2200	6.200
22317 C W33	22317 CK W33	85.000	180.000	60.000	378000	279000	1500	2000	7.250
22318 C W33	22318 CK W33	90.000	190.000	64.000	429000	328000	1400	1900	8.600
22319 C W33	22319 CK W33	95.000	200.000	67.000	466000	360000	1400	1900	10.000
22320 C W33	22320 CK W33	100.000	215.000	73.000	549000	427000	1300	1700	13.000
22322 C W33	22322 CK W33	110.000	240.000	80.000	652000	513000	1280	1600	18.000
22324 C W33	22324 CK W33	120.000	260.000	86.000	760000	603000	1100	1400	22.000
22326 C W33	22326 CK W33	130.000	280.000	93.000	880000	702000	1000	1300	28.500
22328 C W33	22328 CK W33	140.000	300.000	102.000	1017000	823000	880	1200	34.500

**SPHERICAL ROLLER BEARINGS**

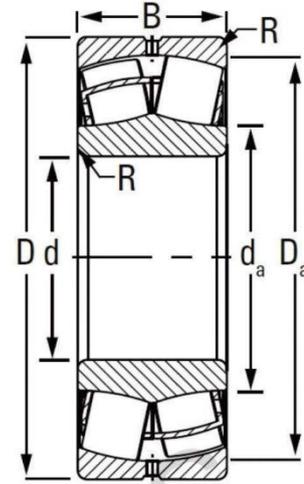
SERIES : 230 C & 230 CK



Bearing Number		Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass
Cylindrical Bore	Taper Bore	Bore d mm	OD D mm	Width B mm	Dynamic C	Static Co	Grease	Oil	(Kg)
23020 C W33	23020 CK W33	100.000	150.000	37.000	190000	170000	1760	2500	2.400
23022 C W33	23022 CK W33	110.000	170.000	45.000	243000	216000	1700	2400	3.750
23024 C W33	23024 CK W33	120.000	180.000	46.000	269000	238000	1600	2200	4.200
23026 C W33	23026 CK W33	130.000	200.000	52.000	336000	292000	1500	2080	6.100
23028 C W33	23028 CK W33	140.000	210.000	53.000	352000	320000	1440	1900	6.550
23030 C W33	23030 CK W33	150.000	225.000	56.000	393000	364000	1360	1760	7.950
23032 C W33	23032 CK W33	160.000	240.000	60.000	455000	427000	1360	1760	9.700
23034 C W33	23034 CK W33	170.000	260.000	67.000	559000	526000	1280	1600	13.000
23036 C W33	23036 CK W33	180.000	280.000	74.000	652000	612000	1100	1440	16.300
23038 C W33	23038 CK W33	190.000	290.000	75.000	678000	648000	1040	1360	17.000
23040 C W33	23040 CK W33	200.000	310.000	82.000	792000	747000	960	1280	23.000

**SPHERICAL ROLLER BEARINGS**

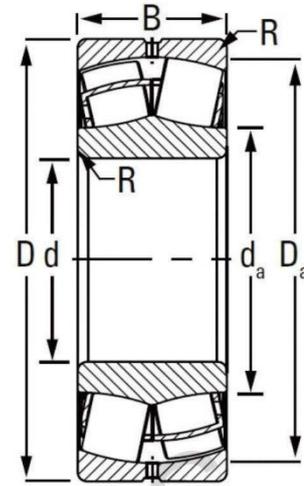
SERIES : 231 C & 231 CK



Bearing Number		Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass
Cylindrical Bore	Taper Bore	Bore d mm	OD D mm	Width B mm	Dynamic C	Static Co	Grease	Oil	(Kg)
23120 C W33	23120 CK W33	100.000	165.000	52.000	290000	243000	1600	2200	4.400
23122 C W33	23122 CK W33	110.000	180.000	56.000	336000	288000	1500	2000	5.550
23124 C W33	23124 CK W33	120.000	200.000	62.000	393000	342000	1400	1900	7.800
23126 C W33	23126 CK W33	130.000	210.000	64.000	440000	387000	1360	1760	8.550
23128 C W33	23128 CK W33	140.000	225.000	68.000	491000	441000	1280	1600	10.500
23130 C W33	23130 CK W33	150.000	250.000	80.000	652000	603000	1100	1400	16.000
23132 C W33	23132 CK W33	160.000	270.000	86.000	760000	688000	1000	1300	20.500
23134 C W33	23134 CK W33	170.000	280.000	88.000	807000	747000	960	1200	21.500

**SPHERICAL ROLLER BEARINGS**

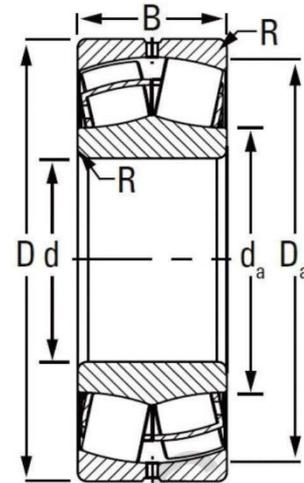
SERIES : 232 C & 232 CK



Bearing Number		Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass
Cylindrical Bore	Taper Bore	Bore d mm	OD D mm	Width B mm	Dynamic C	Static Co	Grease	Oil	(Kg)
23218 C W33	23218 CK W33	90.000	160.000	52.400	248000	146000	1500	2080	4.600
23220 C W33	23220 CK W33	100.000	180.000	60.300	331000	272000	1360	1760	6.700
23222 C W33	23222 CK W33	110.000	200.000	69.800	418000	352000	1280	1600	9.700
23224 C W33	23224 CK W33	120.000	215.000	76.000	488000	496000	1200	1500	12.000
23226 C W33	23226 CK W33	130.000	230.000	80.000	552000	480000	1000	1360	14.000
23228 C W33	23228 CK W33	140.000	250.000	88.000	639000	568000	960	1280	18.500

**SPHERICAL ROLLER BEARINGS (BRASS CAGE)**

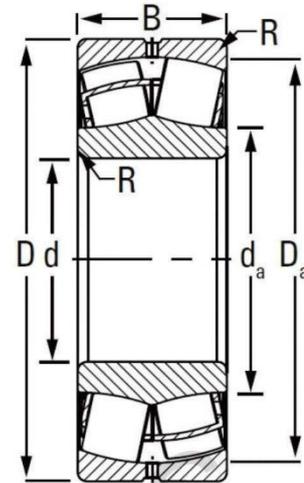
SERIES : 240 M & 240 M K30



Bearing Number		Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass
Cylindrical Bore	Taper Bore	Bore d mm	OD D mm	Width B mm	Dynamic C	Static Co	Grease	Oil	(Kg)
24024 M W33	24024 M W33 K30	120.000	180.000	60.000	336000	324000	1280	1600	5.400
24026 M W33	24026 M W33 K30	130.000	200.000	69.000	419000	405000	1200	1520	7.950
24028 M W33	24028 M W33 K30	140.000	210.000	69.000	445000	432000	1120	1440	8.450
24030 M W33	24030 M W33 K30	150.000	225.000	75.000	507000	504000	1040	1360	10.500
24032 M W33	24032 M W33 K30	160.000	240.000	80.000	579000	576000	880	1200	13.000
24034 M W33	24034 M W33 K30	170.000	260.000	90.000	719000	720000	800	1120	17.500
24036 M W33	24036 M W33 K30	180.000	280.000	100.000	843000	855000	760	1040	23.000

**SPHERICAL ROLLER BEARINGS (BRASS CAGE)**

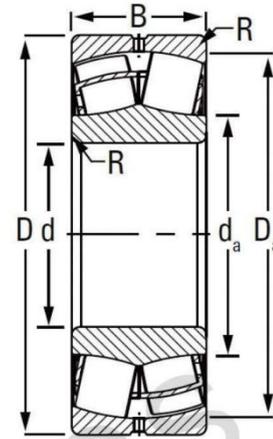
SERIES : 241 M & 241 M K30



Bearing Number		Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass
Cylindrical Bore	Taper Bore	Bore d mm	OD D mm	Width B mm	Dynamic C	Static Co	Grease	Oil	(Kg)
24120 M W33	24120 M W33 K30	100.000	165.000	65.000	409000	368000	1400	1800	5.750
24122 M W33	24122 M W33 K30	110.000	180.000	69.000	414000	373000	1100	1500	6.850
24124 M W33	24124 M W33 K30	120.000	200.000	80.000	517000	477000	960	1280	10.000
24126 M W33	24126 M W33 K30	130.000	210.000	80.000	528000	495000	880	1120	11.000
24128 M W33	24128 M W33 K30	140.000	225.000	85.000	605000	537000	800	1040	13.000
24130 M W33	24130 M W33 K30	150.000	250.000	100.000	790000	765000	720	800	19.500

**SPHERICAL ROLLER BEARINGS (BRASS CAGE)**

SERIES : 222 M, 213 M, 223 M, 230 M, 231 M, 232 M & 222 KM, 213 KM, 223 KM, 230 KM, 231 KM, 232 KM



Bearing Number		Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass
Cylindrical Bore	Taper Bore	Bore d mm	OD D mm	Width B mm	Dynamic C	Static Co	Grease	Oil	(Kg)
22205 M W33	22205 KM W33	25.000	52.000	18.000	32000	19400	6800	8800	0.180
22206 M W33	22206 KM W33	30.000	62.000	20.000	44000	27000	6000	7600	0.280
22207 M W33	22207 KM W33	35.000	72.000	23.000	57000	36000	5000	6400	0.430
22208 M W33	22208 KM W33	40.000	80.000	23.000	66000	43000	4800	6000	0.520
22209 M W33	22209 KM W33	45.000	85.000	23.000	69000	46000	4200	5300	0.560
22210 M W33	22210 KM W33	50.000	90.000	23.000	72000	48000	4000	5000	0.600
22211 M W33	22211 KM W33	55.000	100.000	25.000	89000	60000	3600	4400	0.820
22212 M W33	22212 KM W33	60.000	110.000	28.000	110000	75000	3200	4000	1.100
22213 M W33	22213 KM W33	65.000	120.000	31.000	130000	90000	3000	3800	1.450
22214 M W33	22212 KM W33	70.000	125.000	31.000	133000	94000	2800	3600	1.550
22215 M W33	22215 KM W33	75.000	130.000	31.000	138000	99000	2700	3400	1.650
22216 M W33	22216 KM W33	80.000	140.000	33.000	158000	114000	2500	3200	2.050
22217 M W33	22217 KM W33	85.000	150.000	36.000	181000	131000	2400	3000	2.550
22240 M W33	22240 KM W33	200.000	360.000	98.000	1143000	990000	880	1200	43.500
22307 M W33	22307 KM W33	35.000	80.000	31.000	94000	60000	4000	5000	0.730
21309 M W33	21309 KM W33	45.000	100.000	25.000	90000	58900	3400	4200	0.950
21310 M W33	21310 KM W33	50.000	110.000	27.000	108000	73300	3000	3800	1.200
21311 M W33	21311 KM W33	55.000	120.000	29.000	124000	83700	2700	3400	1.600
21312 M W33	21312 KM W33	60.000	130.000	31.000	145000	102000	2400	3000	1.950
21313 M W33	21313 KM W33	65.000	140.000	33.000	165000	120000	2200	2800	2.450
21314 M W33	21314 KM W33	70.000	150.000	35.000	186000	135000	2080	2700	3.000
21315 M W33	21315 KM W33	75.000	160.000	37.000	211000	153000	1900	2560	3.550
21316 M W33	21316 KM W33	80.000	170.000	39.000	232000	171000	1760	2400	4.200
21317 M W33	21317 KM W33	85.000	180.000	41.000	264000	194000	1600	2200	5.000
21318 M W33	21318 KM W33	90.000	190.000	43.000	290000	216000	1500	2000	5.800
21319 M W33	21319 KM W33	95.000	200.000	45.000	316000	243000	1400	1900	7.150
21320 M W33	21320 KM W33	100.000	215.000	47.000	346000	270000	1360	1760	8.800
23020 M W33	23020 KM W33	100.000	150.000	37.000	190000	170000	1760	2500	2.400
23022 M W33	23022 KM W33	110.000	170.000	45.000	243000	216000	1700	2400	3.750
23024 M W33	23024 KM W33	120.000	180.000	46.000	269000	238000	1600	2200	4.200

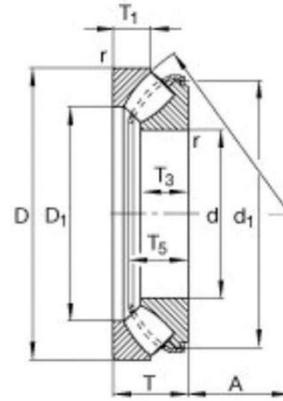
**SPHERICAL ROLLER BEARINGS (BRASS CAGE)**

**SERIES : 222 M, 213 M, 223 M, 230 M, 231 M, 232 M & 222 KM, 213 KM, 223 KM, 230 KM, 231 KM, 232 KM**

Bearing Number		Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass
Cylindrical	Taper	Bore	OD	Width	Dynamic	Static	Grease	Oil	(Kg)
Bore	Bore	d mm	D mm	B mm	C	Co			
23026 M W33	23026 KM W33	130.000	200.000	52.000	336000	292000	1500	2080	6.100
23028 M W33	23028 KM W33	140.000	210.000	53.000	352000	320000	1440	1900	6.550
23030 M W33	23030 KM W33	150.000	225.000	56.000	393000	364000	1360	1760	7.950
23032 M W33	23032 KM W33	160.000	240.000	60.000	455000	427000	1360	1760	9.700
23034 M W33	23034 KM W33	170.000	260.000	67.000	559000	526000	1280	1600	13.000
23036 M W33	23036 KM W33	180.000	280.000	74.000	652000	612000	1100	1440	16.300
23038 M W33	23038 KM W33	190.000	290.000	75.000	678000	648000	1040	1360	17.000
23040 M W33	23040 KM W33	200.000	310.000	82.000	792000	747000	960	1280	23.000
23120 M W33	23120 KM W33	100.000	165.000	52.000	290000	243000	1600	2200	4.400
23122 M W33	23122 KM W33	110.000	180.000	56.000	336000	288000	1500	2000	5.550
23124 M W33	23124 KM W33	120.000	200.000	62.000	393000	342000	1400	1900	7.800
23126 M W33	23126 KM W33	130.000	210.000	64.000	440000	387000	1360	1760	8.550
23128 M W33	23128 KM W33	140.000	225.000	68.000	491000	441000	1280	1600	10.500
23130 M W33	23130 KM W33	150.000	250.000	80.000	652000	603000	1100	1400	16.000
23132 M W33	23132 KM W33	160.000	270.000	86.000	760000	688000	1000	1300	20.500
23134 M W33	23134 KM W33	170.000	280.000	88.000	807000	747000	960	1200	21.500
23218 M W33	23218 KM W33	90.000	160.000	52.400	248000	146000	1500	2080	4.600
23220 M W33	23220 KM W33	100.000	180.000	60.300	331000	272000	1360	1760	6.700
23224 M W33	23224 KM W33	120.000	215.000	76.000	488000	496000	1200	1500	12.000
23226 M W33	23226 KM W33	130.000	230.000	80.000	552000	480000	1000	1360	14.000

**SPHERICAL ROLLER THRUST BEARINGS (BRASS CAGE)**

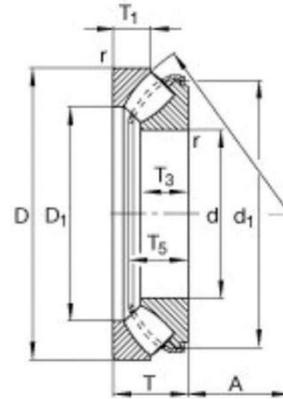
SERIES : 293



Bearing Number	Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM) Oil	Mass (Kg)
	Cylindrical Bore d mm	OD D mm	Width T mm	Dynamic C	Static Co		
29317 M	85.000	150.000	39.000	300000	459000	1760	2.750
29318 M	90.000	155.000	39.000	310000	477000	1760	2.850
29320 M	100.000	170.000	42.000	367000	558000	1600	3.650
29322 M	110.000	190.000	48.000	481000	765000	1440	5.300
29324 M	120.000	210.000	54.000	590000	936000	1280	7.350
29326 M	130.000	225.000	58.000	677000	1098000	1200	9.000
29328 M	140.000	240.000	60.000	760000	1260000	1120	10.500
29330 M	150.000	250.000	60.000	776000	1260000	1120	11.000
29332 M	160.000	270.000	67.000	909000	1530000	960	14.500
29334 M	170.000	280.000	67.000	945000	1530000	960	15.000

**SPHERICAL ROLLER THRUST BEARINGS (BRASS CAGE)**

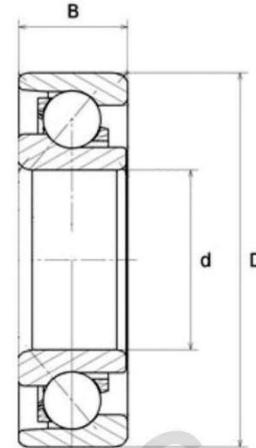
SERIES : 294



Bearing Number	Boundary Dimension			Basic Load Rating (N)		Limiting Speed	Mass (Kg)
	Cylindrical	Bore	OD	Width	Dynamic	Static	
	d mm	D mm	B mm	C	Co	Oil	
29412 M	60.000	130.000	42.000	310000	418000	2000	2.600
29413 M	65.000	140.000	45.000	357000	495000	1900	3.200
29414 M	70.000	150.000	48.000	404000	567000	1760	3.900
29415 M	75.000	160.000	51.000	466000	648000	1760	4.700
29416 M	80.000	170.000	54.000	517000	733000	1600	5.600
29417 M	85.000	180.000	58.000	570000	810000	1520	6.750
29418 M	90.000	190.000	60.000	631000	900000	1440	7.750
29420 M	100.000	210.000	67.000	776000	1125000	1280	10.500
29422 M	110.000	230.000	73.000	909000	1350000	1120	13.500
29424 M	120.000	250.000	78.000	1053000	1584000	1040	17.500
29426 M	130.000	270.000	85.000	1242000	1872000	960	22.000
29428 M	140.000	280.000	85.000	1260000	1944000	960	23.000
29430 M	150.000	300.000	90.000	1449000	2295000	880	28.000
29432 M	160.000	320.000	95.000	1611000	2520000	800	33.500
29434 M	170.000	340.000	103.000	1818000	2925000	760	44.500

**ANGULAR CONTACT BALL BEARINGS-Inch Series (BRASS CAGE)**

SERIES : ALS, AMS, QJ



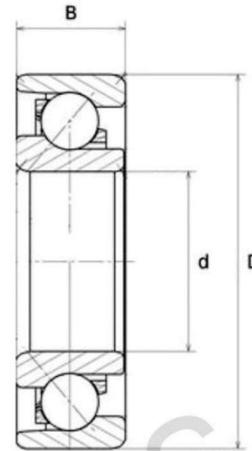
Bearing Number	Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass (Kg)
	Bore	OD	Width	Dynamic	Static	Grease	Oil	
	d in	D in	B in	C	Co			
ALS 28 M	3 1/2	6 1/2	1 1/8	81000	75000	1900	2700	2.830
ALS 32 M	4	7 1/4	1 1/4	90000	85000	1600	2400	3.250
ALS 40 M	5	9	1 3/8	129000	120000	1280	1760	6.900

Bearing Number	Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass (Kg)
	Bore	OD	Width	Dynamic	Static	Grease	Oil	
	d in	D in	B in	C	Co			
AMS 22 M	2 3/4	6 1/4	1 3/8	87000	73000	2080	2880	3.670
AMS 24 M	3	7	1 9/16	103000	94000	1920	2700	5.060
AMS 28 M	3 1/2	8 1/8	1 3/4	126000	125000	1500	2200	7.700

Bearing Number	Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass (Kg)
	Bore	OD	Width	Dynamic	Static	Grease	Oil	
	d mm	D mm	B mm	C	Co			
QJ 215 M	75.000	130.000	25.000	105000	88000	3200	4200	1.45
QJ 222M	110.000	200.000	38.000	238000	220000	1900	2700	5.600

**ANGULAR CONTACT BALL BEARINGS-Inch Series (STEEL CAGE)**

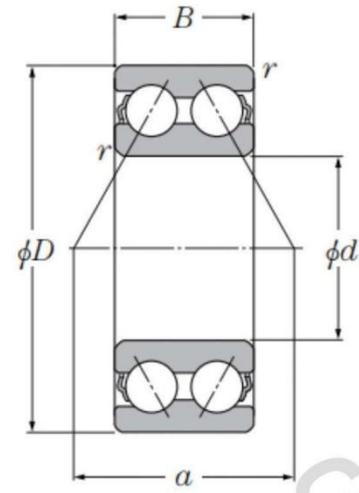
SERIES : ALS, AMS



Bearing Number	Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass (Kg)
	Bore	OD	Width	Dynamic	Static			
	d in	D in	B in	C	Co	Grease	Oil	
ALS 28	3 1/2	6 1/2	1 1/8	81000	75000	1900	2700	2.830
ALS 32	4	7 1/4	1 1/4	90000	85000	1600	2400	3.250
ALS 40	5	9	1 3/8	129000	120000	1280	1760	6.900

Bearing Number	Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass (Kg)
	Bore	OD	Width	Dynamic	Static			
	d in	D in	B in	C	Co	Grease	Oil	
AMS 22	2 3/4	6 1/4	1 3/8	87000	73000	2080	2880	3.670
AMS 24	3	7	1 9/16	103000	94000	1920	2700	5.060
AMS 28	3 1/2	8 1/8	1 3/4	126000	125000	1500	2200	7.700

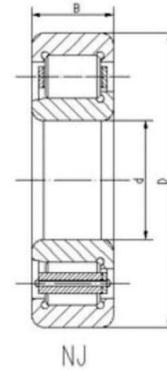
**DOUBLE ROW ANGULAR CONTACT BALL BEARINGS**



Bearing Number	Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass (Kg)
	Bore	OD	Width	Dynamic	Static			
	d mm	D mm	B mm	C	Co	Grease	Oil	
3204	20.000	47.000	20.600	15500	11000	7000	10000	0.170
3205	25.000	52.000	20.600	17000	13500	6400	8800	0.190
3206	30.000	62.000	23.800	24000	19800	5600	7600	0.320
3207	35.000	72.000	27.000	33000	28000	4800	6400	0.480
3208	40.000	80.000	30.200	37000	32000	4500	6000	0.650
3209	45.000	85.000	30.200	41000	37000	4000	5400	0.710
3210	50.000	90.000	30.200	46000	43000	3800	5000	0.760
3211	55.000	100.000	33.300	51000	48000	3400	4500	1.050
3212	60.000	110.000	36.500	64000	61000	3000	4000	1.400
3213	65.000	120.000	38.100	70000	67000	2900	3800	1.750
3214	70.000	125.000	39.700	70000	68000	2560	3400	1.900
3215	75.000	130.000	41.300	75000	76000	2560	3400	2.100
3216	80.000	140.000	44.400	91000	93000	2200	3000	2.650
3217	85.000	150.000	49.200	99000	102000	2100	2900	3.400
3304	20.000	52.000	22.200	18800	14000	6800	9600	0.230
3305	25.000	62.000	25.400	26000	20000	6000	8000	0.370
3306	30.000	72.000	30.200	34000	28000	5000	6800	0.590
3307	35.000	80.000	34.900	43000	36000	4500	6000	0.820
3308	40.000	90.000	36.500	54000	46000	4000	5300	1.050
3309	45.000	100.000	39.700	65000	57000	3600	4800	1.400
3310	50.000	110.000	44.400	89000	73000	3200	4200	1.950
3311	55.000	120.000	49.200	86000	79000	2900	3800	2.550
3312	60.000	130.000	54.000	100000	95000	2700	3600	3.250
3313	65.000	140.000	58.700	115000	112000	2560	3400	4.100
3314	70.000	150.000	63.500	132000	129000	2200	3000	5.050
3315	75.000	160.000	68.300	141000	138000	2080	2880	6.150
3315 M	75.000	160.000	68.300	141000	138000	2080	2880	6.150

**CYLINDRICAL ROLLER BEARINGS (BRASS CAGE)**

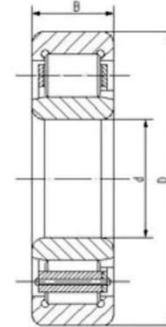
SERIES : NJ



Bearing Number	Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass (Kg)
	Bore	OD	Width	Dynamic	Static			
	d mm	D mm	B mm	C	Co	Grease	Oil	
NJ 2308M	40.000	90.000	33.000	73000	46000	5000	6000	0.960
NJ 310M	50.000	110.000	27.000	79000	47000	4400	5300	1.150
NJ 314M	70.000	150.000	35.000	136000	85000	3200	3800	2.750
NJ 317M	85.000	180.000	41.000	191000	123000	2700	3200	4.500
NJ 410M	50.000	130.000	31.000	117000	70000	4000	4800	2.000
NJ 414M	70.000	180.000	42.000	206000	135000	2800	3400	5.250
NJ 417M	85.000	210.000	52.000	287000	187000	2400	2800	8.700
NJ 2215M	75.000	130.000	31.000	112000	79000	3600	4200	1.550
NJ 2218M	90.000	160.000	40.000	174000	126000	2800	3400	3.100
NJ 2222M	110.000	200.000	53.000	342000	319000	2200	2700	6.850
NJ 316M	80.000	170.000	39.000	171000	110000	2800	3400	3.900
NJ 318M	90.000	190.000	43.000	218000	144000	2550	3000	5.400
NJ 220M	100.000	180.000	34.000	165000	112000	2700	3200	3.400
NJ 221M	105.000	190.000	36.000	181000	123000	2550	3000	4.000
NJ 222M	110.000	200.000	38.000	206000	140000	2400	2880	4.650
NJ 224M	120.000	215.000	40.000	234000	165000	2200	2700	5.650
NJ 226M	130.000	230.000	40.000	243000	174000	2080	2560	6.500
NJ 228M	140.000	250.000	42.000	277000	202000	1900	2400	8.250
NJ 230M	150.000	270.000	45.000	322000	234000	1600	2080	10.500

**CYLINDRICAL ROLLER BEARINGS (BRASS CAGE)**

SERIES : NU

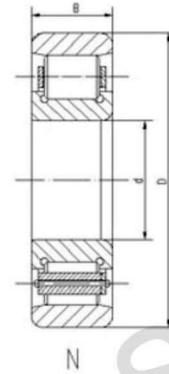


NU

Bearing Number	Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass (Kg)
	Bore	OD	Width	Dynamic	Static	Grease	Oil	
	d mm	D mm	B mm	C	Co			
NU 2308M	40.000	90.000	33.000	73000	46000	5000	6000	0.960
NU 310M	50.000	110.000	27.000	79000	47000	4400	5300	1.150
NU 314M	70.000	150.000	35.000	136000	85000	3200	3800	2.750
NU 317M	85.000	180.000	41.000	191000	123000	2700	3200	4.500
NU 410M	50.000	130.000	31.000	117000	70000	4000	4800	2.000
NU 414M	70.000	180.000	42.000	206000	135000	2800	3400	5.250
NU 417M	85.000	210.000	52.000	287000	187000	2400	2800	8.700
NU 2215M	75.000	130.000	31.000	112000	79000	3600	4200	1.550
NU 2218M	90.000	160.000	40.000	174000	126000	2800	3400	3.100
NU 2222M	110.000	200.000	53.000	342000	319000	2200	2700	6.850
NU 316M	80.000	170.000	39.000	171000	110000	2800	3400	3.900
NU 318M	90.000	190.000	43.000	218000	144000	2550	3000	5.400
NU 220M	100.000	180.000	34.000	165000	112000	2700	3200	3.400
NU 221M	105.000	190.000	36.000	181000	123000	2550	3000	4.000
NU 222M	110.000	200.000	38.000	206000	140000	2400	2880	4.650
NU 224M	120.000	215.000	40.000	234000	165000	2200	2700	5.650
NU 226M	130.000	230.000	40.000	243000	174000	2080	2560	6.500
NU 228M	140.000	250.000	42.000	277000	202000	1900	2400	8.250
NU 230M	150.000	270.000	45.000	322000	234000	1600	2080	10.500

**CYLINDRICAL ROLLER BEARINGS (STEEL CAGE)**

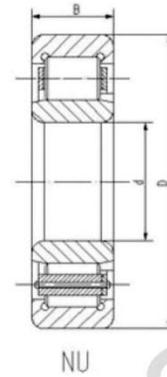
SERIES : N



Bearing Number	Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass (Kg)
	Bore	OD	Width	Dynamic	Static			
	d mm	D mm	B mm	C	Co	Grease	Oil	
N 303	17.000	47.000	14.000	14000	7000	11000	13500	0.120
N 304	20.000	52.000	15.000	18000	9000	9600	12000	0.150
N 305	25.000	62.000	17.000	25700	13500	7600	9600	0.240
N 306	30.000	72.000	19.000	33200	18000	6800	8000	0.360
N 307	35.000	80.000	21.000	40000	22500	6400	7600	0.480
N 308	40.000	90.000	23.000	50500	29200	5360	6400	0.660
N 309	45.000	100.000	25.000	64800	37300	5040	6000	0.870
N 310	50.000	110.000	27.000	79200	46800	4480	5360	1.150
N 311	55.000	120.000	29.000	91800	55800	4000	4800	1.450
N 312	60.000	130.000	31.000	110700	68850	3840	4480	1.850
N 313	65.000	140.000	33.000	124200	76500	3600	4200	2.250
N 314	70.000	150.000	35.000	135900	85500	3200	3840	2.750
N 316	80.000	170.000	39.000	171000	110000	2900	3400	3.900
N 318	90.000	190.000	43.000	218000	144000	2600	3000	5.400

**CYLINDRICAL ROLLER BEARINGS (STEEL CAGE)**

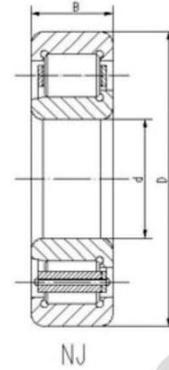
**SERIES : NU**



Bearing Number	Boundary Dimension			Basic Load Rating (N)		Limiting Speed		Mass (Kg)
	Bore	OD	Width	Dynamic	Static	(RPM)		
	d mm	D mm	B mm	C	Co	Grease	Oil	
NU 303	17.000	47.000	14.000	14000	7000	11000	13500	0.120
NU 304	20.000	52.000	15.000	18000	9000	9600	12000	0.150
NU 305	25.000	62.000	17.000	25700	13500	7600	9600	0.240
NU 306	30.000	72.000	19.000	33200	18000	6800	8000	0.360
NU 307	35.000	80.000	21.000	40000	22500	6400	7600	0.480
NU 308	40.000	90.000	23.000	50500	29200	5360	6400	0.660
NU 309	45.000	100.000	25.000	64800	37300	5040	6000	0.870
NU 310	50.000	110.000	27.000	79200	46800	4480	5360	1.150
NU 311	55.000	120.000	29.000	91800	55800	4000	4800	1.450
NU 312	60.000	130.000	31.000	110700	68850	3840	4480	1.850
NU 313	65.000	140.000	33.000	124200	76500	3600	4200	2.250
NU 314	70.000	150.000	35.000	135900	85500	3200	3840	2.750
NU 316	80.000	170.000	39.000	171000	110000	2900	3400	3.900
NU 318	90.000	190.000	43.000	218000	144000	2600	3000	5.400
NU 207 K	35.000	72.000	17.000	29000	16000	7000	9000	0.290
NU 220	100.000	180.000	34.000	165000	112000	2700	3200	3.500
NU 221	105.000	190.000	36.000	181000	123000	2550	3000	4.000
NU 222	110.000	200.000	38.000	206000	140000	2400	2880	4.650
NU 224	120.000	215.000	40.000	234000	165000	2200	2700	5.650
NU 226	130.000	230.000	40.000	243000	174000	2080	2560	6.500
NU 228	140.000	250.000	42.000	277000	202000	1900	2400	8.250
NU 230	150.000	270.000	45.000	322000	234000	1600	2080	10.500
NU 2310	50.000	110.000	40.000	109000	72000	4000	4800	1.700

**CYLINDRICAL ROLLER BEARINGS (STEEL CAGE)**

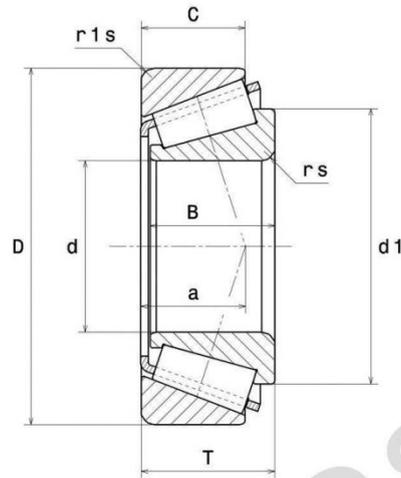
**SERIES : NJ**



Bearing Number	Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass (Kg)
	Bore	OD	Width	Dynamic	Static	Grease	Oil	
	d mm	D mm	B mm	C	Co			
NJ 303	17.000	47.000	14.000	14000	7000	11000	13500	0.120
NJ 304	20.000	52.000	15.000	18000	9000	9600	12000	0.150
NJ 305	25.000	62.000	17.000	25700	13500	7600	9600	0.240
NJ 306	30.000	72.000	19.000	33200	18000	6800	8000	0.360
NJ 307	35.000	80.000	21.000	40000	22500	6400	7600	0.480
NJ 308	40.000	90.000	23.000	50500	29200	5360	6400	0.660
NJ 309	45.000	100.000	25.000	64800	37300	5040	6000	0.870
NJ 310	50.000	110.000	27.000	79200	46800	4480	5360	1.150
NJ 311	55.000	120.000	29.000	91800	55800	4000	4800	1.450
NJ 312	60.000	130.000	31.000	110700	68850	3840	4480	1.850
NJ 313	65.000	140.000	33.000	124200	76500	3600	4200	2.250
NJ 314	70.000	150.000	35.000	135900	85500	3200	3840	2.750
NJ 316	80.000	170.000	39.000	171000	110000	2900	3400	3.900
NJ 318	90.000	190.000	43.000	218000	144000	2600	3000	5.400
NJ 207 K	35.000	72.000	17.000	29000	16000	7000	9000	0.290
NJ 220	100.000	180.000	34.000	165000	112000	2700	3200	3.500
NJ 221	105.000	190.000	36.000	181000	123000	2550	3000	4.000
NJ 222	110.000	200.000	38.000	206000	140000	2400	2880	4.650
NJ 224	120.000	215.000	40.000	234000	165000	2200	2700	5.650
NJ 226	130.000	230.000	40.000	243000	174000	2080	2560	6.500
NJ 228	140.000	250.000	42.000	277000	202000	1900	2400	8.250
NJ 230	150.000	270.000	45.000	322000	234000	1600	2080	10.500
NJ 2310	50.000	110.000	40.000	109000	72000	4000	4800	1.700

## TAPER ROLLER BEARINGS

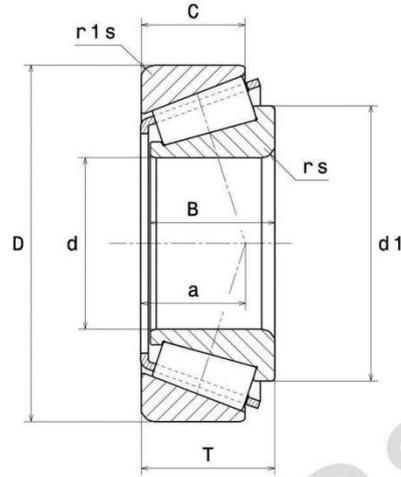
SERIES : 302



Bearing Number	Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass (Kg)
	Bore	OD	Width	Dynamic	Static			
	d mm	D mm	T mm	C	Co	Grease	Oil	
30205	25.000	52.000	16.250	26000	17000	6000	8000	0.150
30206	30.000	62.000	17.250	34000	23000	5000	6800	0.230
30207	35.000	72.000	18.250	43000	29000	4200	5600	0.320
30208	40.000	80.000	19.750	52500	36000	3840	5040	0.420
30209	45.000	85.000	20.750	56000	39600	3600	4800	0.480
30210	50.000	90.000	21.750	63000	47000	3400	4500	0.540
30211	55.000	100.000	22.750	75600	55000	3040	4000	0.700
30212	60.000	110.000	23.750	82000	59000	2700	3600	0.880
30213	65.000	120.000	24.750	97000	70000	2400	3200	1.150
30214	70.000	125.000	26.250	107000	79000	2400	3200	1.250
30215	75.000	130.000	27.250	117000	90000	2240	3040	1.400
30216	80.000	140.000	28.250	126000	94000	1920	2720	1.600
30217	85.000	150.000	30.500	148000	112000	1760	2560	2.050
30218	90.000	160.000	32.500	165000	126000	1600	2400	2.550
30219	95.000	170.000	34.500	185000	140000	1520	2240	3.000
30220	100.000	180.000	37.000	210000	165000	1520	2240	3.650
30221	105.000	190.000	39.000	229000	180000	1440	2080	4.250
30222	110.000	200.000	41.000	257000	205000	1360	1920	5.100
30224	120.000	215.000	43.500	287000	234000	1280	1760	6.150
30226	130.000	230.000	43.750	312000	252000	1200	1600	7.600
30228	140.000	250.000	45.750	356000	293000	1120	1520	8.650

## TAPER ROLLER BEARINGS

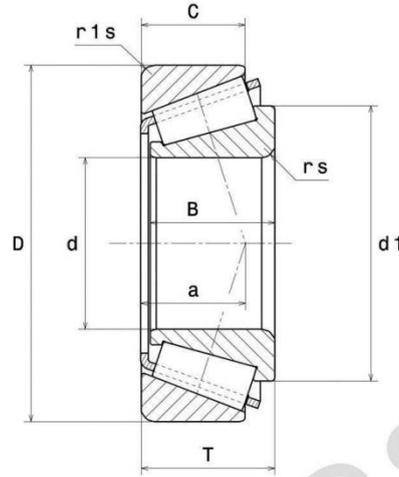
SERIES : 303



Bearing Number	Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass (Kg)
	Bore	OD	Width	Dynamic	Static			
	d mm	D mm	B mm	C	Co	Grease	Oil	
30305	25.000	62.000	18.250	37600	23800	5300	7000	0.260
30306	30.000	72.000	20.750	46800	30600	4500	6000	0.390
30307	35.000	80.000	22.750	61000	40500	4000	5300	0.520
30308	40.000	90.000	25.250	72000	50000	3600	4800	0.720
30309	45.000	100.000	27.250	91000	65000	3200	4200	0.970
30310	50.000	110.000	29.250	105000	75000	2880	3800	1.250
30311	55.000	120.000	31.500	121000	86000	2560	3400	1.550
30312	60.000	130.000	33.500	145000	104000	2400	3200	1.950
30313	65.000	140.000	36.000	165000	121000	2080	2880	2.400
30314	70.000	150.000	38.000	188000	138000	1900	2700	2.900
30315	75.000	160.000	40.000	206000	156000	1760	2560	3.450
30316	80.000	170.000	42.500	229000	171000	1600	2400	4.100
30317	85.000	180.000	44.500	257000	194000	1500	2200	4.850
30318	90.000	190.000	46.500	277000	212000	1440	2080	5.650
30319	95.000	200.000	49.500	307000	238000	1440	2080	6.700
30320	100.000	215.000	51.500	342000	261000	1360	1900	8.050

**TAPER ROLLER BEARINGS**

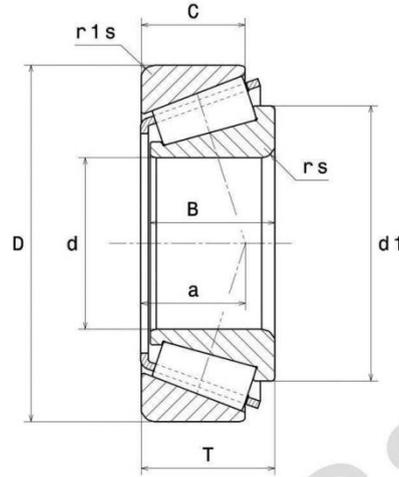
**SERIES : 322**



Bearing Number	Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass (Kg)
	Bore	OD	Width	Dynamic	Static	Grease	Oil	
	d mm	D mm	B mm	C	Co			
32207	35.000	72.000	24.250	55000	40000	4200	5600	0.430
32208	40.000	80.000	24.750	63000	45000	3840	5040	0.530
32209	45.000	85.000	20.750	67000	50000	3600	4800	0.580
32210	50.000	90.000	24.750	68000	51000	3400	4480	0.610
32211	55.000	100.000	26.750	89000	68000	3040	4000	0.830
32212	60.000	110.000	29.750	107000	82000	2700	3600	1.150
32213	65.000	120.000	32.750	128000	100000	2400	3200	1.500
32214	70.000	125.000	33.250	132000	106000	2200	3000	1.600
32215	75.000	130.000	33.250	136000	108000	2080	2880	1.700
32216	80.000	140.000	35.250	158000	123000	1900	2700	2.050
32217	85.000	150.000	38.500	181000	146000	1760	2560	2.600
32218	90.000	160.000	42.500	214000	174000	1600	2400	3.350
32219	95.000	170.000	45.500	238000	198000	2500	2200	4.050
32220	100.000	180.000	49.000	267000	225000	1440	2080	4.900
32221	105.000	190.000	53.000	307000	261000	1440	2080	6.000
32222	110.000	200.000	56.000	336000	292000	1360	1900	7.100
32224	120.000	215.000	61.500	396000	351000	1280	1760	9.150
32226	130.000	230.000	67.750	470000	427000	1200	1600	11.500
32228	140.000	250.000	71.750	544000	504000	1100	1500	14.500
32230	150.000	270.000	77.000	614000	576000	960	1360	17.500
32232	160.000	290.000	84.000	742000	702000	880	1280	25.500

**TAPER ROLLER BEARINGS**

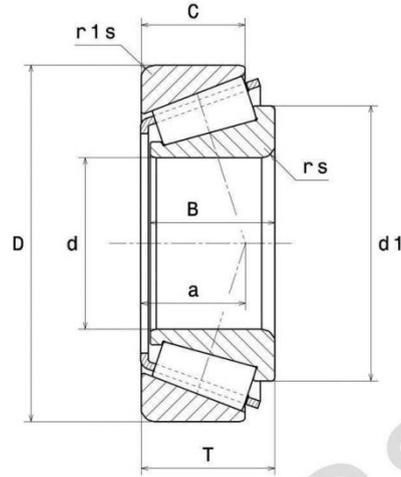
**SERIES : 323**



Bearing Number	Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass (Kg)
	Bore d mm	OD D mm	Width B mm	Dynamic C	Static Co	Grease	Oil	
32305	25.000	62.000	25.250	50000	35000	4800	6400	0.360
32306	30.000	72.000	28.750	65000	47000	4200	5600	0.550
32307	35.000	80.000	32.750	81000	59000	3840	5040	0.730
32308	40.000	90.000	35.250	99000	75000	3200	4240	1.000
32309	45.000	100.000	38.250	115000	92000	2880	3840	1.350
32310	50.000	110.000	42.250	145000	114000	2560	3440	1.800
32311	55.000	120.000	45.500	168000	135000	2400	3200	2.300
32312	60.000	130.000	48.500	195000	156000	2080	2880	2.850
32313	65.000	140.000	51.000	221000	180000	1920	2720	3.450
32314	70.000	150.000	54.000	247000	205000	1760	2560	4.300
32315	75.000	160.000	58.000	287000	234000	1600	2400	5.200
32316	80.000	170.000	61.500	322000	270000	1500	2240	6.200
32317	85.000	180.000	63.500	342000	288000	1440	2080	6.850
32318	90.000	190.000	67.500	386000	324000	1360	1900	8.400
32319	95.000	200.000	71.500	421000	360000	1360	1900	11.000
32320	100.000	215.000	77.500	485000	418000	1280	1760	12.500
32322	110.000	240.000	84.500	594000	513000	1100	1500	17.000

## TAPER ROLLER BEARINGS

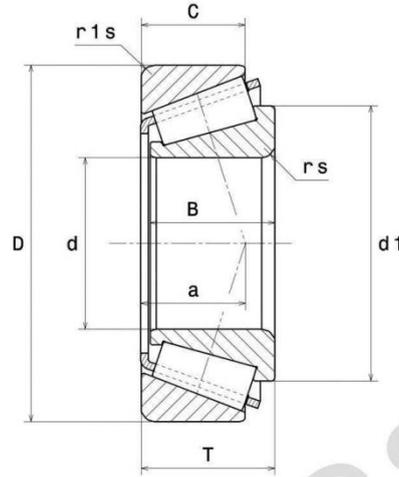
SERIES : 330



Bearing Number	Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass (Kg)
	Bore	OD	Width	Dynamic	Static			
	d mm	D mm	B mm	C	Co	Grease	Oil	
33010	50.000	80.000	24.000	58000	50000	3600	4800	0.450
33011	55.000	90.000	27.000	75000	67000	3200	4000	0.670
33012	60.000	95.000	27.000	77000	70000	3200	4000	0.710
33013	65.000	100.000	27.000	81000	75000	2700	3600	0.780
33014	70.000	110.000	31.000	109000	97000	2560	3400	1.100
33015	75.000	115.000	31.000	115000	110000	2400	3200	1.150
33016	80.000	125.000	36.000	141000	138000	2000	2900	1.650
33017	85.000	130.000	36.000	155000	149000	2000	2800	1.750
33018	90.000	140.000	39.000	185000	176000	1760	2560	2.200
33019	95.000	145.000	39.000	188000	180000	1760	2560	2.300
33020	100.000	150.000	39.000	190000	187000	1600	2400	2.400
33021	105.000	160.000	43.000	210000	209000	1500	2200	3.050
33022	110.000	170.000	47.000	237000	243000	1440	2080	3.850
33024	120.000	180.000	48.000	243000	261000	1440	2080	4.200

**TAPER ROLLER BEARINGS**

**SERIES : 331**



Bearing Number	Boundary Dimension			Basic Load Rating (N)		Limiting Speed (RPM)		Mass (Kg)
	Bore	OD	Width	Dynamic	Static			
	d mm	D mm	B mm	C	Co	Grease	Oil	
33108	40.000	75.000	26.000	67000	52000	4000	5600	0.510
33109	45.000	80.000	26.000	71000	57000	3600	4800	0.560
33110	50.000	85.000	26.000	73000	60000	3400	4500	0.590
33111	55.000	95.000	30.000	94000	77000	3000	4000	0.860
33112	60.000	100.000	30.000	99000	85000	2800	3800	0.920
33113	65.000	110.000	34.000	120000	104000	2560	3400	1.300
33114	70.000	120.000	37.000	144000	126000	2400	3200	1.700
33115	75.000	125.000	37.000	148000	131000	2200	3000	1.800
33116	80.000	130.000	37.000	151000	137000	2100	2900	1.900
33117	85.000	140.000	41.000	184000	171000	1900	2700	2.450
33118	90.000	150.000	45.000	214000	198000	1600	2400	3.150



ISO 9001:2015 Certified

**Shaligram Engineering Co.**

(Manufacturing Facility)

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Contact : +91 90330 47603

Web : [www.usbbearings.com](http://www.usbbearings.com)