



Spherical Roller Bearings

Spherical roller bearings have two rows of rollers with a common sphere raceway in the outer ring. The two inner ring raceways are inclined at an angle to the bearing axis. The bearings are self aligning and can accommodate misalignment. UST Spherical roller bearings are manufactured in Steel and Brass cage which are standard production. In addition UST also has E design similar to European manufacturers having extra rollers for higher load carrying capacity.

Product Highlights

Available in steel and Brass cage

E type design with extra rollers manufactured as well

Sealed version in regular production as well

Self-aligning, robust design

High load carrying capacity

Reduced friction and minimum heat generation

Spherical Roller Bearings

1. Prefix

BS2 - Two row spherical roller bearing, special dimensions

2. Internal Design

(CA - Integral side flanges, inner ring guided one-piece machined brass cage

CAC - Same as CA designed spherical roller bearing with improved roller guidance

CAFA- Bearing with symmetrical rollers, retaining flanges on the inner ring. Guide ring centered on the inner ring, one-piece machined steel cage of the double pronged type centered in the outer ring.

CAMA-As CAFA, but with a machined brass double pronged cage.

CC - Flangeless inner, symmetrical rollers, floating guide ring, pressed steel cage.

E - Improved internal design, W33 feature is standard

3. Bore Type

- - Cylindrical Bore

K - Bearing with 1 to 12 tapered bore

K30 - Bearing with 1 to 30 tapered bore

3. Cage Design/seals

J - Pressed steel cage

JA - Hardened steel cage, ring guided

M2 - Machined brass roller guided cage, no guide ring

MA - Machined brass cage, ring guided

2CS2- Sheet steel reinforced contact seal of acrylonitrile butadiene rubber (NBR) on both side of the bearings. Annular groove and three lubrication holes in the outer ring; covered with a polymer band. Lubricated with a high temperature grease

2CS5- Sheet steel reinforced contact seal of hydrogenated acrylonitril butadiene (HNBR) on both side of the bearing. Otherwise same as 2CS2

F - Machine steel cage, ring guided

Y - Pressed brass cage, ring guided

5. Clearance / tolerance

C1 - Clearance < C2

C2 - Clearance < Normal

(C0)*- Normal Clearance

C3 - Clearance > Normal

C4 - Clearance > C3

6. Features

W - Without re-lubrication feature (W33) on E style bearings only.

W4 - High point of eccentricity marked on inner ring or sleeve

W22- Special reduced outside diameter tolerance for outer ring

W26- Six lubrication holes in inner ring

W31- bearing inspected to special quality requirement

W33- Three oil holes and circumferential groove in outside diameter

W33X- Lubrication groove and six holes in outer ring

W502- Combination of W22 & W33

W507- Combination of W4, W31 & W33

W509- Combination of W26, W31 & W33

Ha1 - Case hardened outer ring and inner ring

Ha3 - Case hardened inner rings (equal to ECB)

Va405-Vibrating screen specification

VA751-VA759-Printing/coater roller specification

Vt143- SKF grease LGEP2 supplied in sealed spherical roller bearings

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Radial Internal Clearance Of Spherical Roller Bearings With Cylindrical Bore.

Bore Diameter	Radial Internal Clearance										
		C2		Normal		C3		C4		C5	
d	Incl.	min	max	min	max	min	max	min	max	min	max
over (mm)	mm	micron									
18	24	10	20	20	35	35.0	45	45	60	60	75
24	30	15	25	25	40	40.0	55	55	75	75	95
30	40	15	30	30	45	45.0	60	60	80	80	100
40	50	20	35	35	55	55.0	75	75	100	100	125
50	65	20	40	40	65	65.0	90	90	120	120	150
65	80	30	50	50	80	80.0	110	110	145	145	185
80	100	35	60	60	100	100.0	135	135	180	180	225
100	120	40	75	75	120	120.0	160	160	210	210	260
120	140	50	95	95	145	145.0	190	190	240	240	300
140	160	60	110	110	170	170.0	220	220	280	280	350
160	180	65	120	120	180	180.0	240	240	310	310	390
180	200	70	130	130	200	200.0	260	260	340	340	430
200	225	80	140	140	220	220.0	290	290	380	380	470
225	250	90	150	150	240	240.0	320	320	420	420	520
250	280	100	170	170	260	260.0	350	350	460	460	570
280	315	110	190	190	280	280.0	730	370	500	500	630
315	355	120	200	200	310	310.0	410	410	550	550	690
355	400	130	220	220	340	340.0	450	450	600	600	750
400	450	140	240	240	370	370.0	500	500	660	660	820
450	500	140	260	260	410	410.0	550	550	720	720	900
500	560	150	280	280	440	440.0	600	600	780	780	1000
560	630	170	310	310	480	480.0	650	650	850	850	1100

Spherical Roller Bearings

Radial Internal Clearance Of Spherical Roller Bearings With Cylindrical Bore.

Bore Diameter	Radial Internal Clearance										
		C2		Normal		C3		C4		C5	
d	Incl.	min	max	min	max	min	max	min	max	min	max
over (mm)	mm	micron									
630	710	190	350	350	530	530.0	700	700	920	920	1190
710	800	210	390	390	580	580.0	770	770	1010	1010	1300
800	900	230	430	430	650	650.0	860	860	1120	1120	1440
900	1000	260	480	480	710	710.0	930	930	1220	1220	1570
1000	1120	290	530	530	780	780.0	1020	1020	1330	1330	1720
1120	1250	320	580	580	860	860.0	1120	1120	1460	1460	1870

Radial internal clearance of spherical roller bearings with Taper bore

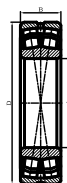
Bore Diameter	Radial Internal Clearance										
		C2		Normal		C3		C4		C5	
d	Incl.	min	max	min	max	min	max	min	max	min	max
over (mm)	mm	micron									
24	30	20	30	30	40	40.0	55	55	75	-	-
30	40	25	35	35	50	50.0	65	65	85	85	105
40	50	30	45	45	60	60.0	80	80	100	100	130
50	65	40	55	55	75	75.0	95	95	120	120	160
65	80	50	70	70	95	95.0	120	120	150	150	200
80	100	55	80	80	110	110.0	140	140	180	180	230
100	120	65	100	100	135	135.0	170	170	220	220	280
120	140	80	120	120	160	160.0	200	200	260	260	330

Spherical Roller Bearings

Radial internal clearance of spherical roller bearings with Taper bore

Bore Diameter	Radial Internal Clearance										
		C2		Normal		C3		C4		C5	
d	Incl.	min	max	min	max	min	max	min	max	min	max
over (mm)	mm	micron									
140	160	90	130	130	180	180.0	230	230	300	300	380
160	180	100	140	140	200	200.0	260	260	340	340	430
180	200	110	160	160	220	220.0	290	290	370	370	470
200	225	120	180	180	250	250.0	320	320	410	410	520
225	250	140	200	220	270	270.0	350	350	450	450	570
250	280	150	220	220	300	300.0	390	390	490	490	620
280	315	170	240	240	330	330.0	430	430	540	540	680
315	355	190	270	270	360	360.0	470	470	590	590	740
355	400	210	300	300	400	400.0	520	520	650	650	820
400	450	230	330	330	440	440.0	570	570	720	720	910
450	500	260	370	370	490	490.0	630	630	790	790	1000
500	560	290	410	410	540	540.0	680	680	870	870	1100
560	630	320	460	460	600	600.0	760	760	980	980	1230
630	710	350	510	510	670	670.0	850	850	1090	1090	1360
710	800	390	570	570	750	750.0	960	960	1220	1220	1500
800	900	440	640	640	840	840.0	1070	1070	1370	1370	1690
900	1000	490	710	710	930	930.0	1190	1190	1520	1520	1860
1000	1120	530	770	770	1030	1030.0	1300	1300	1670	1670	2050
1120	1250	570	830	830	1120	1120.0	1420	1420	1830	1830	2550

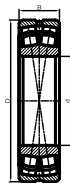
Spherical Roller Bearings



Bearing Designation	Principal Dimensions			Basic Load Ratings		Fatigue Load Limit	Speed ratings Lubrication		Mass
	d	D	B	Dynamic	Static		Grease	Oil	
mm				C (kN)	CO (kN)	Pu (kN)	rpm		kg
21304CCW33	20	52	15	30.5	30.5	3.4	8000	10000	0.160
21305 CCW33	25	62	17	41.4	41.5	4.6	6700	8500	0.250
21306 CCW33	30	72	19	55.2	61	6.8	6000	7500	0.380
21307 CCW33	35	80	21	65.6	72	8.2	5300	6700	0.510
21308 CCW33	40	90	23	82.8	98	11.0	4500	5600	0.710
21309 CCW33	45	100	25	101	114	12.9	4300	5300	0.950
21310 CCW33	50	110	27	120	140	16.0	3600	4800	1.200
21311 CCW33	55	120	29	138	163	18.6	3400	4300	1.600
21312 CCW33	60	130	31	161	200	23.2	3000	3800	1.950
21313 CCW33	65	140	3	184	240	270.0	2800	3600	2.450
21314 CCW33	70	150	35	207	260	29.0	2600	3400	3.000
21315 CCW33	75	160	37	235	300	32.5	2400	3200	3.550
21316 CCW33	80	170	39	258	335	36.0	2200	3000	4.200
21317 CCW33	85	180	41	293	375	40.0	2000	2800	5.000
21318 CCW33	90	190	43	322	425	44.0	1900	2600	5.800
21319 CCW33	95	200	45	351	480	49.0	1800	2400	7.150
21320 CCW33	100	215	47	385	530	53.0	1700	2200	8.800
21322 CCW33	110	240	50	460	630	61.0	1600	2000	12.000

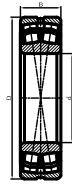
22205 CCW33	25	52	18	35.7	35.7	3.9	8500	11000	0.180
22206 CCW33	30	62	20	48.9	52	5.4	7500	9500	0.280
22207 CCW33	35	72	23	67.3	73.5	8.0	6300	8000	0.430
22208 CCW33	40	80	23	73.6	81.5	9.2	6000	7500	0.520

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Bearing Designation	Principal Dimensions			Basic Load Ratings		Fatigue Load Limit	Speed ratings Lubrication		Mass
	d	D	B	Dynamic	Static		Grease	Oil	
	mm			C (kN)	CO (kN)	Pu (kN)	rpm		kg
22209 CCW33	45	85	23	77.1	88.0	9.5	5300	6700	0.560
22210 CCW33	50	90	23	84.5	100.0	11.0	5000	6300	0.600
22211 CCW33	55	100	25	99.5	118.0	12.9	4500	5600	0.820
22212 CCW33	60	110	28	122.0	146.0	16.3	4000	5000	1.100
22213 CCW33	65	120	31	148.0	183.0	21.2	3800	4800	1.450
22214 CCW33	70	125	31	148.0	186.0	21.2	3600	4500	1.550
22215 CCW33	75	130	31	158.0	208.0	23.6	3400	4300	1.650
22216 CCW33	80	140	33	176.0	228.0	26.0	3200	4000	2.050
22217 CCW33	85	150	36	210.0	270.0	31.0	3000	3800	2.550
22218 CCW33	90	160	40	253.0	340.0	37.5	2600	3400	3.400
22219 CCW33	95	170	43	282.0	375.0	40.0	2400	3200	4.000
22220 CCW33	100	180	46	311.0	415.0	44.0	2200	3000	4.850
22222 CCW33	110	200	53	408.0	560.0	57.0	2000	2800	7.000
22224 CCW33	120	215	58	466.0	670.0	67.0	1900	2600	8.700
22226 CCW33	130	230	64	546.0	800.0	78.0	1800	2400	11.000
22228 CCW33	140	250	68	610.0	900.0	86.5	1700	2200	14.000
22230 CCW33	150	270	73	736.0	1080.0	102.0	1600	2000	18.000
22232 MBW33	160	290	80	863.0	1290.0	118.0	1500	1900	22.500
22234 MBW33	170	310	86	978.0	1460.0	132.0	1300	1700	28.500
22236 MBW33	180	320	86	1010.0	1560.0	140.0	1300	1700	29.500
22238 MBW33	190	340	92	1110.0	1700.0	150.0	1200	1600	36.500
22240 MBW33	200	360	98	1270.0	1930.0	166.0	1100	1500	43.500
22244 MBW33	220	400	108	1520.0	2360.0	196.0	950	1300	60.500

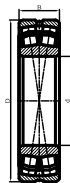
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Bearing Designation	Principal Dimensions			Basic Load Ratings		Fatigue Load Limit	Speed ratings Lubrication		Mass
	d	D	B	Dynamic	Static		Grease	Oil	
mm				C (kN)	CO (kN)	Pu (kN)	rpm		kg
22248 MBW33	240	440	120	1910.0	3000.0	245.0	900	1200	83.000
22252 MBW33	260	480	130	2300.0	3550.0	285.0	850	1100	110.000
22256 MBW33	280	500	130	2350.0	3750.0	300.0	800	1000	115.000
22260 MBW33	300	540	140	2760.0	4250.0	325.0	750	950	145.000
22264 MBW33	320	580	150	3160.0	4900.0	375.0	670	850	175.000
22272 MBW33	360	650	170	4300.0	6200.0	440.0	630	850	255.000

22310 CCW33	50	110	40	176.0	200.0	21.6	3400	4300	1.850
22311 CCW33	55	120	43	199.0	232.0	25.0	3200	4000	2.350
22312 CCW33	60	130	46	235.0	280.0	30.0	3000	3800	2.950
22313 CCW33	65	140	48	253.0	300.0	32.0	2600	3400	3.550
22314 CCW33	70	150	51	311.0	380.0	40.0	2400	3200	4.300
22315 CCW33	75	160	55	345.0	430.0	44.0	2200	3000	5.250
22316 CCW33	80	170	58	374.0	455.0	46.5	2000	2800	6.200
22317 CCW33	85	180	60	420.0	520.0	52.0	1900	2600	7.250
22318 CCW33	90	190	64	477.0	610.0	60.0	1800	2400	8.600
22319 CCW33	95	200	67	518.0	670.0	64.0	1800	2400	10.000
22320 CCW33	100	215	73	610.0	800.0	75.0	1700	2200	13.000
22322 CCW33	110	240	80	725.0	965.0	86.5	1600	2000	18.000
22324 CCW33	120	260	86	845.0	1120.0	100.0	1400	1800	22.000
22326 MBW33	130	280	93	978.0	1320.0	114.0	1300	1700	28.500
22328 MBW33	140	300	102	1130.0	1560.0	132.0	1100	1500	34.500
22330 MBW33	150	320	108	1270.0	1760.0	146.0	1000	1400	41.500

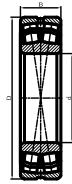
Spherical Roller Bearings



Bearing Designation	Principal Dimensions			Basic Load Ratings		Fatigue Load Limit	Speed ratings Lubrication		Mass
	d	D	B	Dynamic	Static		Grease	Oil	
	mm			C (kN)	CO (kN)	Pu (kN)	rpm		kg
22332 MBW33	160	340	114	1380.0	1960.0	160.0	950	1300	50.000
22334 MBW33	170	360	120	1540.0	2160.0	176.0	950	1300	58.500
22336 MBW33	180	380	126	1730.0	2450.0	193.0	900	1200	69.000
22338 MBW33	190	400	132	1870.0	2650.0	208.0	850	1100	80.000
22340 MBW33	200	420	138	2020.0	2900.0	224.0	850	1100	92.500
22344 MBW33	220	460	145	2350.0	3450.0	260.0	750	950	120.000
22348 MBW33	240	500	155	2670.0	4000.0	290.0	670	850	155.000
22352 MBW33	260	540	165	3050.0	4550.0	325.0	630	800	190.000
22356 MBW33	280	580	175	3450.0	5200.0	365.0	600	750	235.000
22380 MBW33	400	820	243	7500.0	10400.0	670.0	430	750	650.000

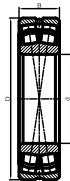
23022 CCW33	110	170	45	267.0	440.0	46.5	2200	3000	3.750
23024 CCW33	120	180	46	305.0	510.0	53.0	2000	2800	4.200
23026 CCW33	130	200	52	374.0	610.0	61.0	1900	2600	6.100
23028 CCW33	140	210	53	397.0	680.0	68.0	1800	2400	6.550
23030 CCW33	150	225	56	437.0	750.0	73.5	1700	2200	7.950
23032 MBW33	160	240	60	506.0	880.0	83.0	1700	2200	9.700
23034 MBW33	170	260	67	621.0	1060.0	100.0	1600	2000	13.000
23036 MBW33	180	280	74	725.0	1250.0	114.0	1400	1800	17.000
23038 MBW33	190	290	75	753.0	1340.0	122.0	1300	1700	18.000
23040 MBW33	200	310	82	880.0	1530.0	137.0	1200	1600	23.000
23044 MBW33	220	340	90	1050.0	1860.0	163.0	100	1500	30.500
23048 MBW33	240	360	92	1130.0	2080.0	176.0	1000	1400	33.500

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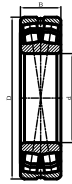
Bearing Designation	Principal Dimensions			Basic Load Ratings		Fatigue Load Limit	Speed ratings Lubrication		Mass
	d	D	B	Dynamic	Static		Grease	Oil	
mm				C (kN)	CO (kN)	Pu (kN)	rpm		kg
23052 MBW33	260	400	104	1400.0	2550.0	212.0	900	1200	48.500
23056 MBW33	280	420	106	1520.0	2850.0	224.0	850	1100	52.500
23060 MBW33	300	460	118	1840.0	3450.0	265.0	800	1000	71.500
23064 MBW33	320	480	121	1960.0	3800.0	285.0	800	1000	78.000
23068 MBW33	340	520	133	2700.0	4500.0	335.0	100	1300	105.000
23072 MBW33	360	540	134	2750.0	4800.0	345.0	950	1200	110.000
23076 MBW33	380	560	135	2900.0	5000.0	380.0	900	1200	115.000
23080 MBW33	400	600	148	3250.0	5700.0	400.0	850	1100	150.000
23084 MBW33	420	620	150	3400.0	6000.0	415.0	600	1100	155.000
23088 MBW33	440	650	157	3650.0	6550.0	450.0	560	1000	180.000
23092 MBW33	460	680	163	3900.0	6950.0	465.0	560	950	205.000
23096 MBW33	480	700	165	3900.0	6800.0	450.0	530	950	215.000
23120 CCW33	100	165	52	322.0	490.0	53.0	2000	2800	4.400
23122 MBW33	110	180	56	374.0	585.0	61.0	1900	2600	5.550
23124 CCW33	120	200	62	449.0	695.0	71.0	1800	2400	7.800
23126 CCW33	130	210	64	489.0	780.0	78.0	1700	2200	8.550
23128 CCW33	140	225	68	546.0	900.0	88.0	1600	2000	10.500
23130 MBW33	150	250	80	725.0	1200.0	114.0	1400	1800	16.000
23132 MBW33	160	270	86	845.0	1370.0	129.0	1300	1700	20.500
23134 MBW33	170	280	88	897.0	1500.0	137.0	1200	1600	21.500
23136 MBW33	180	300	96	1050.0	1760.0	160.0	1100	1500	27.500
23138 MBW33	190	320	104	1200.0	2080.0	183.0	1000	1400	34.500

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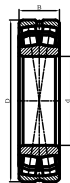
Bearing Designation	Principal Dimensions			Basic Load Ratings		Fatigue Load Limit	Speed ratings Lubrication		Mass
	d	D	B	Dynamic	Static		Grease	Oil	
	mm			C (kN)	CO (kN)	Pu (kN)	rpm		kg
23140 MBW33	200	340	112	1380.0	2360.0	204.0	950	1300	42.500
23144 MBW33	220	370	120	1580.0	2750.0	232.0	900	1200	53.000
23148 MBW33	240	400	128	1790.0	3200.0	255.0	850	1100	65.500
23152 MBW33	260	440	144	2220.0	3900.0	290.0	800	1000	90.500
23156 MBW33	280	460	146	2300.0	4250.0	335.0	750	950	97.000
23160 MBW33	300	500	160	2820.0	5100.0	380.0	670	850	125.000
23164 MBW33	320	540	176	3280.0	6000.0	440.0	630	800	165.000
23168 MBW33	340	580	190	4250.0	6800.0	480.0	800	1000	210.000
23172 MBW33	360	600	192	4300.0	6950.0	490.0	750	1000	220.000
23176 MBW33	380	620	194	4400.0	7100.0	500.0	560	1000	230.000
23180 MBW33	400	650	200	4650.0	7650.0	530.0	530	950	265.000
23184 MBW33	420	700	224	5600.0	9300.0	620.0	480	900	350.000
23188 MBW33	440	720	226	6000.0	10000.0	670.0	450	850	360.000
23192 MBW33	460	760	240	6400.0	101800.0	680.0	430	800	440.000
23196 MBW33	480	790	248	6950.0	12000.0	780.0	400	750	485.000
23218 CCW33	90	160	52.4	311.0	440.0	48.0	1900	2600	4.600
23220 CCW333	100	180	60.3	414.0	600.0	63.0	1700	2200	6.700
23222 CCW33	110	200	69.8	518.0	765.0	76.5	1600	2000	9.700
23224 MBW33	120	215	76	610.0	930.0	93.0	1500	1900	12.000
23226 MBW33	130	230	80	690.0	1060.0	104.0	1300	1700	14.000
23228 MBW33	140	250	88	799.0	1250.0	120.0	1200	1600	18.500
23230 MBW33	150	270	96	937.0	1460.0	137.0	1100	1500	24.000

Spherical Roller Bearings



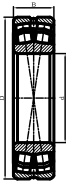
Bearing Designation	Principal Dimensions			Basic Load Ratings		Fatigue Load Limit	Speed ratings Lubrication		Mass
	d	D	B	Dynamic	Static		Grease	Oil	
mm				C (kN)	CO (kN)	Pu (kN)	rpm		kg
23232 MBW33	160	290	104	1070.0	1660.0	153.0	1000	1400	30.000
23234 MBW33	170	310	110	1220.0	1930.0	173.0	950	1300	36.500
23236 MBW33	180	320	112	1290.0	2120.0	186.0	900	1200	39.000
23238 MBW33	190	340	120	1460.0	2400.0	208.0	850	1100	47.500
23240 MBW33	200	360	128	1610.0	2700.0	228.0	850	1100	57.000
23244 MBW33	220	400	144	2070.0	3450.0	285.0	750	950	79.500
23248 MBW33	240	440	160	2530.0	4300.0	345.0	670	850	110.000
23252 MBW33	260	480	174	2820.0	4750.0	360.0	630	800	140.000
23256 MBW33	280	500	176	2820.0	4900.0	365.0	600	750	150.000
23260 MBW33	300	540	192	3340.0	5850.0	425.0	530	670	190.000
23264 MBW33	320	580	208	3850.0	6700.0	475.0	500	630	240.000
23268MBW33	340	620	224	5100.0	7800.0	550.0	560	800	295.000
23272 MBW33	360	650	232	5400.0	8300.0	570.0	530	750	335.000
23276 MBW33	380	680	240	5850.0	9150.0	620.0	500	750	375.000
23280MBW33	400	720	256	6550.0	10400.0	680.0	480	670	450.000
23284 MBW33	420	760	272	7350.0	11600.0	765.0	450	630	535.000
23288 MBW33	440	790	280	7800.0	12500.0	800.0	430	600	590.000
23292 MBW33	460	830	296	8500.0	13700.0	880.0	400	560	695.000
23296 MBW33	480	870	310	9300.0	15000.0	950.0	380	530	800.000
23896 MBW33	480	600	90	1440.0	3750.0	280.0	530	1100	61.000
23926 MBW33	130	180	37	202.0	360.0	37.5	2000	3200	2.950

Spherical Roller Bearings



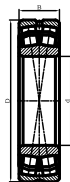
Bearing Designation	Principal Dimensions			Basic Load Ratings		Fatigue Load Limit	Speed ratings Lubrication		Mass
	d	D	B	Dynamic	Static		Grease	Oil	
	mm			C (kN)	CO (kN)	Pu (kN)	rpm		kg
23932 MBW33	160	220	45	299.0	570.0	55.0	1900	2600	5.200
23936 MBW33	180	250	52	431.0	830.0	76.5	1700	2200	8.200
23938 MBW33	190	260	52	414.0	800.0	76.5	1700	2200	8.400
23940 MBW33	200	280	60	546.0	1040.0	93.0	1600	2000	11.500
23943 MBW33	360	480	90	1400.0	2750.0	220.0	1200	1300	43.000
23944 MBW33	220	300	60	546.0	1080.0	93.0	1500	1900	13.000
23948 MBW33	240	320	60	564.0	1160.0	98.0	1300	1700	14.000
23952 MBW33	260	360	75	880.0	1800.0	156.0	1100	1500	24.000
23956 MBW33	280	380	75	845.0	1760.0	143.0	1000	1400	26.000
23960 MBW33	300	420	90	1200.0	2500.0	200.0	950	1300	40.500
23964 MBW33	320	440	90	1240.0	2700.0	212.0	900	1200	42.000
23968 MBW33	340	460	90	1460.0	2800.0	216.0	1300	1400	45.500
23976 MBW33	380	520	106	1960.0	3800.0	285.0	1100	1200	69.000
23980 MBW33	400	540	106	2000.0	3900.0	290.0	1100	1200	71.000
23984 MBW33	420	560	106	2040.0	4150.0	300.0	1000	1100	74.500
23988MBW33	440	600	118	2450.0	4900.0	345.0	950	1000	99.500
23992 MBW33	460	620	118	2500.0	5000.0	355.0	600	1000	105.000
23996 MBW33	480	650	128	2900.0	5700.0	405.0	560	1000	125.000
24024 MBW33	120	180	60	374.0	670.0	68.0	1600	2000	5.400
24026 MBW33	130	200	69	477.0	815.0	81.5	1500	1900	7.950
24028 MBW33	140	210	69	495.0	900.0	88.0	1400	1800	8.450
24030 MBW33	150	225	75	564.0	1040.0	100.0	1300	1700	10.500

Spherical Roller Bearings



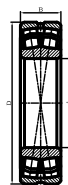
Bearing Designation	Principal Dimensions			Basic Load Ratings		Fatigue Load Limit	Speed ratings Lubrication		Mass
	d	D	B	Dynamic	Static		Grease	Oil	
mm				C (kN)	CO (kN)	Pu (kN)	rpm		kg
24032 MBW33	160	240	80	656.0	1200.0	114.0	1100	1500	13.000
24034 MBW33	170	260	90	799.0	1460.0	137.0	1000	1400	17.500
24036 MBW33	180	280	100	937.0	1730.0	156.0	950	1300	23.000
24038 MBW33	190	290	100	978.0	1800.0	163.0	950	1300	24.000
24040 MBW33	200	310	109	1130.0	2120.0	186.0	900	1200	30.500
24044 MBW33	220	340	118	1360.0	2600.0	212.0	850	1100	39.500
24048 MBW33	240	360	118	1380.0	2700.0	228.0	800	1000	42.500
24052 MBW33	260	400	140	1760.0	3450.0	285.0	700	900	64.500
24056MBW33	280	420	140	1870.0	3800.0	285.0	670	850	68.500
24056 MBW33	280	420	140	1870.0	3800.0	285.0	670	850	68.500
24060 MBW33	300	460	160	2350.0	4750.0	355.0	600	750	97.000
24064 MBW33	320	480	160	2480.0	5100.0	400.0	560	700	100.000
24068 MBW33	340	520	180	3450.0	6200.0	475.0	750	1100	140.000
24072 MBW33	360	540	180	3550.0	6550.0	490.0	700	1000	145.000
24076 MBW33	380	560	180	3600.0	6800.0	480.0	670	950	150.000
24080 MBW33	400	600	200	4300.0	8150.0	560.0	630	900	205.000
24084 MBW33	420	620	200	4400.0	8300.0	585.0	530	480	210.000
24088 MBW33	440	650	212	4800.0	9150.0	630.0	500	850	245.000
24092 MBW33	460	680	218	5200.0	10000.0	670.0	480	800	275.000
24096 MBW33	480	700	218	5300.0	10400.0	695.0	450	750	285.000
24122 CCW33	110	180	69	460.0	750.0	78.0	1600	2000	6.850
24124 MBW33	120	200	80	575.0	950.0	95.0	1400	1800	10.000

Spherical Roller Bearings



Bearing Designation	Principal Dimensions			Basic Load Ratings		Fatigue Load Limit	Speed ratings Lubrication		Mass
	d	D	B	Dynamic	Static		Grease	Oil	
	mm			C (kN)	CO (kN)	Pu (kN)	rpm		kg
24126 MBW33	130	210	80	587.0	1000.0	100.0	1300	1700	11.000
24128 MBW33	140	225	85	673.0	1160.0	112.0	1100	1500	13.000
24130 MBW33	150	250	100	897.0	1530.0	146.0	1000	1400	19.500
24132 MBW33	160	270	109	1040.0	1760.0	163.0	950	1300	25.000
24134 MBW33	170	280	109	1070.0	1860.0	170.0	900	1200	26.500
24136 MBW33	180	300	118	1220.0	2160.0	196.0	900	1200	33.500
24138 MBW33	190	320	128	1400.0	2500.0	212.0	850	1100	42.000
24140 MBW33	200	340	140	1580.0	2800.0	232.0	800	1000	52.000
24144 MBW33	220	370	150	1840.0	3350.0	285.0	750	950	65.000
24148 MBW33	240	400	160	2100.0	3900.0	325.0	670	850	80.500
24152 MBW33	260	440	180	2620.0	4800.0	390.0	600	750	110.000
24156 MBW33	280	460	180	2670.0	5100.0	415.0	560	700	120.000
24160 MBW33	300	500	200	3280.0	6300.0	465.0	530	670	160.000
24164 MBW33	320	540	218	3740.0	7100.0	510.0	480	600	210.000
24168MBW33	340	580	243	5300.0	8650.0	640.0	600	850	280.000
24172MBW33	360	600	243	5600.0	9300.0	670.0	560	800	270.000
24176 MBW33	380	620	243	5700.0	9800.0	710.0	480	850	300.000
24180 MBW33	400	650	250	6200.0	10600.0	735.0	430	800	340.000
24184 MBW33	420	700	280	7350.0	12600.0	850.0	400	750	445.000
24188 MBW33	440	720	280	7500.0	13200.0	900.0	400	700	460.000
24192 MBW33	460	760	300	8300.0	14600.0	1000.0	360	670	560.000
24196 MBW33	480	790	308	9000.0	15600.0	1040.0	340	630	605.000

Spherical Roller Bearings

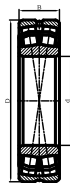


Bearing Designation	Principal Dimensions			Basic Load Ratings		Fatigue Load Limit	Speed ratings Lubrication		Mass
	d	D	B	Dynamic	Static		Grease	Oil	
mm				C (kN)	CO (kN)	Pu (kN)	rpm		kg
24892 MBW33	460	580	118	1790.0	4900.0	345.0	560	1100	75.500

230/500 MBW33	500	720	167	4150.0	7800.0	510.0	500	900	225.000
231/500 MBW33	500	830	264	7650.0	12900.0	830.0	380	700	580.000
232/500 MBW33	500	920	336	10600.0	173000.0	1060.0	360	500	985.000
238/500 MBW33	500	620	90	1480.0	4000.0	290.0	530	1000	62.000

239/500 MBW33	500	670	128	2900.0	6000.0	415.0	530	950	130.000
239/500 MBW33	530	710	136	2980.0	6755.0		450	600	150.000
239/560 MBW33	560	750	140	3100.0	7650.0		340	430	183.000
239/600 MBW33	600	800	150	3450.0	8650.0		320	400	221.000
239/630 MBW33	630	850	165	4290.0	9910.0		380	500	280.000
239/630 MBW33	670	900	170	4300.0	10600.0		280	360	326.000
239/710 MBW33	710	950	180	4800.0	12000.0		260	340	386.000
239/750 MBW33	750	1000	185	5200.0	12900.0		260	340	437.000
239/800 MBW33	800	1060	195	5850.0	15000.0		240	320	506.000
239/900 MBW33	900	1180	200	6930.0	17120.0		280	360	605.000
239/950 MBW33	950	1250	224	7500.0	20000.0		190	260	776.000
239/1000MBW33	1000	1320	236	8150.0	21600.0		180	240	921.000
239/1060MBW33	1060	1400	250	9800.0	26000.0		170	220	1110.000
239/1120MBW33	1120	1460	250	10200.0	27500.0		160	200	1150.000
239/1180MBW33	1180	1540	272	11400.0	31000.0		150	190	1410.000

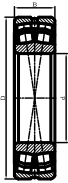
Spherical Roller Bearings



Bearing Designation	Principal Dimensions			Basic Load Ratings		Fatigue Load Limit	Limiting Speed	Mass
	d	D	B	Dynamic	Static		Grease	
	mm			C (kN)	CO (kN)	Pu (kN)	rpm	kg
21304 EW33	20	52	15	40.5	33.5	3.7	15000	0.160
21305 EW33	25	62	17	52.0	43.0	4.8	13000	0.245
21306 EW33	30	72	19	72.0	63.0	7.0	11000	0.386
21307 EW33	35	80	21	83.0	73.5	8.1	9500	0.503
21308 EW33	40	90	23	108.0	106.0	14.3	9500	0.701
21309 EW33	45	100	25	129.0	129.0	17.3	8500	0.845
21310 EW33	50	110	27	129.0	129.0	17.3	8500	1.280
21312 EW33	60	130	31	212.0	228.0	28.0	6300	1.780
21313 EW33	65	140	33	250.0	270.0	34.0	5000	2.420
21314 EW33	70	150	35	250.0	270.0	34.0	5000	3.000
21315 EW33	75	160	37	305.0	325.0	38.5	4800	2.860
21316 EW33	80	170	39	305.0	325.0	38.5	4800	2.650
21320 EW33	100	215	47	490.0	530.0	61.0	3600	8.190
21322 EW33	110	240	50	600.0	640.0	69.0	3000	11.100

22205 EW33	25	52	18	48.0	42.5	4.8	17000	0.180
22206 EW33	30	62	20	64.0	57.0	6.9	13000	0.275
22207 EW33	35	72	23	88.0	81.5	9.4	11000	0.434
22208 EW33	40	80	23	102.0	90.0	11.8	10000	0.528
22209 EW33	45	85	23	104.0	98.0	12.7	10000	0.589
22210 EW33	50	90	23	108.0	106.0	14.3	9500	0.622
22211 EW33	55	100	25	129.0	129.0	17.3	8500	0.851
22212 EW33	60	110	28	170.0	166.0	21.2	7500	1.120

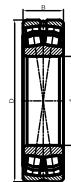
Spherical Roller Bearings



Bearing Designation	Principal Dimensions			Basic Load Ratings		Fatigue Load Limit	Limiting Speed	Mass
	d	D	B	Dynamic	Static		Grease	
	mm			C (kN)	CO (kN)	Pu (kN)	rpm	kg
22213 EW33	65	120	31	200	208	25.5	6700	1.550
22214 EW33	70	125	31	212	228	28.0	6300	1.650
22215 EW33	75	130	31	216	236	29.5	6300	1.720
22216 EW33	80	140	33	250	270	34.0	5600	2.130
22217 EW33	85	150	36	305	325	38.5	5300	2.650
22218 EW33	90	160	40	345	375	42.5	4800	3.430
22219 EW33	95	170	43	380	415	47.0	4500	4.130
22220 EW33	100	180	46	430	475	52.0	4300	4.960
22222 EW33	110	200	53	550	600	62.0	4000	6.990

22308 EW33	40	90	33	156	150	13.1	7500	1.050
22309 EW33	45	100	36	186	183	16.1	6700	1.390
22310 EW33	50	110	40	228	224	20.3	6000	1.900
22311 EW33	55	120	43	265	260	23.9	5600	2.270
22312 EW33	60	130	46	310	310	28.0	5000	2.890
22313 EW33	65	140	48	355	365	32.5	4800	3.570
22314 EW33	70	150	51	390	390	36.5	4500	4.210
22315 EW33	75	160	55	440	450	40.5	4300	5.180
22316 EW33	80	170	58	500	510	45.0	4300	6.270
22317 EW33	85	180	60	540	560	50.0	4000	7.060
22318 EW33	90	190	64	610	630	55.0	3600	8.510
22319 EW33	95	200	67	670	695	60.0	3000	9.690
22320 EW33	100	215	73	815	915	75.0	3000	13.100

Spherical Roller Bearings



Bearing Designation	Principal Dimensions			Basic Load Ratings		Fatigue Load Limit	Limiting Speed	Mass
	d	D	B	Dynamic	Static		Grease	
	mm			C (kN)	CO (kN)	Pu (kN)	rpm	kg
22322 EW33	110	240	80	950	1060	91.0	2600	17.700
23022 EW33	110	170	45	400	530	52.0	4300	3.550
23120 EW33	100	165	52	450	570	52.0	4300	4.220
23122 EW33	110	180	56	530	680	61.0	4000	5.310
23218 EW33	90	160	52.4	440	520	48.5	4300	4.270
23220 EW33	100	180	60.3	550	655	60.0	3600	6.320
23222 EW33	110	200	69.8	710	865	72.0	3000	9.180