



BALL BEARINGS CATALOG

www.rbibearing.com + 1-800-708-2128



PROVIDING BEARING SOLUTIONS THAT KEEP THE WORLD MOVING FORWARD

For over three decades, RBI Bearing, Inc. has manufactured & distributed our own brand of bearings - RBTech. We have the availability to manufacture millions bearings annually in hundreds different sizes and configurations from our wholly-owned bearing factory and partner factories in Wuxi, China. All our bearings are ISO9002 & TS16949 certified, and our factory is cleaning & filtration system compliant with ISO-14000 standards.

We realize standard off-the-shelf bearings don't work for every situation, that is why we often produce custom bearings for our customers to fit a variety of applications. RBI's combination of quality and value makes us hard to beat when considering both aspects, reliable products, and competitive pricing. The fact that our factory is wholly owned helps keep quality control and consistency of our products in line with RBI's high standards and our customers' expectations.

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BEARING FEATURES

- 52100 high carbon steel
- Grade 10 precision balls
- High temperature & food grade grease
- Available with various seal & shield options
- ABEC 1 quality standards
- Premium line of EMQ radial ball bearings are Z2V2 noise and vibration tested as well as ABEC 3 up to 50mm bore
- Available with Armor Bearing Technology & Protection



WUXI R.B. PRECISION BEARING CO., LTD.

RBI provides quality bearings that are used throughout industries worldwide. We manufacture a full range of popular bearing types including miniature inch and metric ball bearings, common metric (6000, 6200, and 6300) and inch series ball bearings, angular contact ball bearings, tapered roller bearings, cylindrical roller bearing, and spherical roller bearings. Our bearings are available in 52100 high carbon bearing steel and 440C stainless steel. RBI's ball bearings meet ABEC 1 precision grade and use grade 10 precision balls to provide smooth running and quiet operation. Common high temperature lubricants and food grade greases are available. RBI's ball bearings can be provided open, with seals or steel shields. Most of our bearings can be customized to meet the requirements of your specific application. We realize standard off-the-shelf bearings don't work for every situation; we often produce custom bearings for our customers according to their drawing specs to fit a variety of applications.

FACTORY CAPABILITIES

- Automatic Production Lines
- Automatic Assembly Lines
- Over 500 different sizes
- Quality Inspection and Verification
- ISO9002 & TS16949 Certified
- Cleaning and Filtration System Compliant with ISO-14000 Standards
- Produce Z3/V3 Noise and Vibration Levels
- Material Procurement
- Bearing Application Engineering
- Engineering, Consulting & Design
- Factory Warehouse Programs

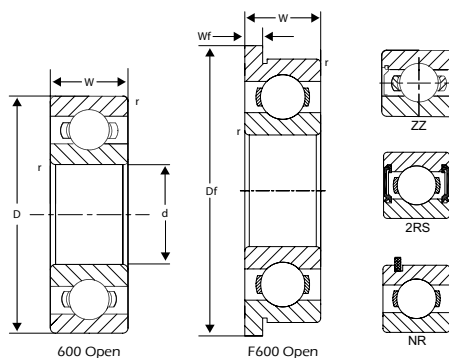
CORE BEARINGS PRODUCTS

- Deep Groove Ball Bearings
- Double Row Ball Bearings
- Stainless Steel Deep Groove Ball Bearings
- Cylindrical Roller Bearings
- Tapered Roller Bearings
- Spherical Bearings
- Angular Contact Bearings
- Pillow Block Mounted Bearings
- Flange Block Mounted Bearings
- Take Up Units Mounted Bearings
- Pressed Steel Mounted Bearings
- Stainless Steel Mounted Bearings
- Thermoplastic Mounted Bearings

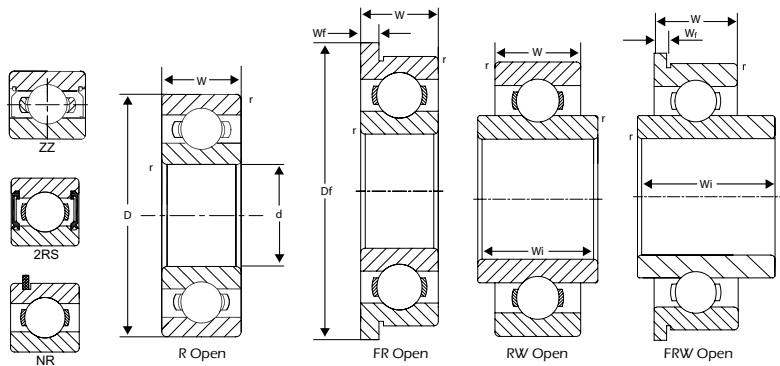


600 MINIATURE SERIES

METRIC



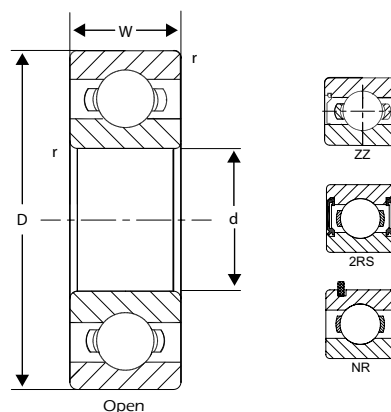
RBI Bearing No.	Bore d	Outer Diameter D	Width W		Flange Dimensions		Radius r	Basic Load Rating (lbs.)		Weight (lbs.) Open
			Open	Shielded	D _f	Open W _f		Dynamic C	Static C ₀	
681	1	3	1	-	-	-	0.15	18	5	.0001
691	1	4	1.6	-	-	-	0.2	35	9.5	.0002
681X	1.5	4	1.2	2	5	0.4	0.2	36	10	.0002
691X	1.5	5	2	2.6	6.5	0.6	0.3	53	15	.0004
601X	1.5	6	2.5	3	7.5	0.6	0.3	62	19	.001
682	2	5	1.5	2.3	6.1	0.5	0.2	38	11	.0003
692	2	6	2.3	3	7.5	0.6	0.3	63	20	.001
602	2	7	2.8	3.5	8.5	0.7	0.3	86	28	.001
682X	2.5	6	1.8	2.6	7.1	0.5	0.3	47	16	.001
692X	2.5	7	2.5	3.5	8.5	0.7	0.3	64	22	.001
602X	2.5	8	2.8	4	9.5	0.7	0.3	123	39	.001
683	3	7	2	3	8.1	0.5	0.3	87	29	.001
693	3	8	3	4	9.5	0.7	0.3	126	40	.001
603	3	9	3	5	10.5	0.7	0.3	142	49	.002
623	3	10	4	4	11.5	1.0	0.3	144	50	.003
633	3	13	5	5	15	1.0	0.5	295	116	.005
684	4	9	2.5	4	10.3	0.6	0.3	144	50	.001
694	4	11	4	4	12.5	1.0	0.3	161	62	.004
604	4	12	4	4	13.5	1.0	0.4	218	80	.005
624	4	13	5	5	15	1.0	0.4	295	110	.007
634	4	16	5	5	-	-	0.3	395	153	.011
685	5	11	3	5	12.5	0.8	0.3	161	63	.003
695	5	13	4	4	15	1.0	0.4	242	97	.005
605	5	14	5	5	16	1.0	0.4	299	114	.007
625	5	16	5	5	18	1.0	0.3	395	153	.010
635	5	19	6	6	-	-	0.3	525	199	.017
686	6	13	3.5	5	15	1.0	0.3	243	99	.004
696	6	15	5	5	17	1.2	0.4	305	119	.009
606	6	17	6	6	19	1.2	0.5	495	195	.013
626	6	19	6	6	22	1.5	0.5	525	199	.017
636	6	22	7	7	-	-	-	-	-	-
687	7	14	3.5	5	16	1.0	0.3	264	115	.004
697	7	17	5	5	19	1.2	0.3	360	160	-
607	7	19	6	6	-	-	0.3	505	205	.018
627	7	22	7	7	-	-	0.3	750	315	.024
637	7	26	9	9	-	-	-	-	-	-
688	8	16	4	5	18	1.0	0.3	283	131	.007
698	8	19	6	6	22	1.5	0.3	445	194	-
608	8	22	7	7	25	1.5	0.3	750	315	.024
628	8	24	8	8	-	-	0.3	900	355	.026
638	8	28	8	9	-	-	-	-	-	-
689	9	17	4	5	19	1.0	0.3	390	184	.013
699	9	20	6	6	-	-	0.3	560	245	-
609	9	24	7	7	-	-	0.3	765	325	.026
629	9	26	8	8	-	-	0.6	1030	440	.040
639	9	30	10	10	10	-	-	-	-	-



RBI Bearing No.	Bore d		Outer Diameter D		Width W				Flange Dimensions Open		Radius r (in.)	Basic Load Rating (lbs.)		Weight (lbs.) Open
					Open	Shielded	Open	Shielded						
	Fraction	in.	Fraction	in.	Open	Shielded	Open	Shielded	D _f	Open W _f		Dynamic C	Static C ₀	
R09	1/25	.0400	1/8	.1250	.0469	-	-	-	-	-	0.004	22	6	.0001
R0	3/64	.0469	5/32	.1562	.0625	.0937	.0937	.1250	.203	.013	0.004	36	10	.0002
R1	-	.0550	3/16	.1875	.0781	.1094	.1094	.1406	.234	.023	0.004	42	13	.001
R1-4	5/64	.0781	1/4	.2500	.0937	.1406	.1250	.1719	.296	.023	0.004	63	20	.001
R133	3/32	.0937	3/16	.1875	.0625	.0937	.0937	.1250	.234	.018	0.004	28	9.5	.0002
R1-5	3/32	.0937	5/16	.3125	.1094	.1406	.1406	.1719	.359	.023	0.006	96	34	.001
R144	1/8	.1250	1/4	.2500	.0937	.1094	.1250	.1406	.296	.023	0.004	64	22	.001
R2-5	1/8	.1250	5/16	.3125	.1094	.1406	.1406	.1719	.359	.023	0.004	126	40	.002
R2-6	1/8	.1250	3/8	.3750	.1094	.1406	.1406	.1719	.422	.023	0.006	144	50	.002
R2	1/8	.1250	3/8	.3750	.1562	.1562	.1875	.1875	.440	.030	0.012	144	50	.003
R2A	1/8	.1250	1/2	.5000	.1719	.1719	-	-	-	-	0.012	258	89	.007
R155	5/32	.1562	5/16	.3125	.1094	.1250	.1406	.1562	.359	.023	0.004	76	30	.001
R156	3/16	.1875	5/16	.3125	.1094	.1250	.1406	.1562	.359	.023	0.004	89	32	.001
R166	3/16	.1875	3/8	.3750	.1250	.1250	.1562	.1562	.422	.023	0.004	160	60	.002
R3	3/16	.1875	1/2	.5000	.1562	.1960	.2272	.2272	.565	.042	0.012	295	110	.005
R3A	3/16	.1875	1/2	.5000	.1960	.1960	-	-	-	-	0.012	295	110	.006
R168	1/4	.2500	3/8	.3750	.1250	.1250	.1562	.1562	.422	.023	0.004	60	31	.001
R188	1/4	.2500	1/2	.5000	.1250	.1875	.1562	.2188	.547	.023	0.006	186	84	.004
R4	1/4	.2500	5/8	.6250	.1960	.1960	.2272	.2272	.690	.042	0.012	335	139	.010
R4A	1/4	.2500	3/4	.7500	.2188	.2812	-	-	-	-	0.016	525	199	.017
R6	3/8	.3750	7/8	.8750	.2188	.2812	-	-	.969	.062	0.016	745	315	.024
R8	1/2	.5000	1-1/8	1.1250	.2500	.3125	-	-	1.225	.062	0.016	1148	535	.039
R10	5/8	.6250	1-3/8	1.3750	.2812	.3438	-	-	-	-	0.031	1347	734	.081
R12	3/4	.7500	1-5/8	1.6250	.3125	.4375	-	-	-	-	0.031	1770	1018	.104
R14	7/8	.8750	1-7/8	1.8750	.3750	.5000	-	-	-	-	0.031	2261	1316	.157
R16	1	1.0000	2	2.0000	.3750	.5000	-	-	-	-	0.031	2261	1316	.187
R18	1-1/8	1.1250	2-1/8	2.1250	.3750	.5000	-	-	-	-	0.031	2150	1407	.198
R20	1-1/4	1.2500	2-1/4	2.2500	.3750	.5000	-	-	-	-	0.031	2973	1858	.209
R22	1-3/8	1.3750	2-1/2	2.5000	.4375	.5625	-	-	-	-	0.031	2756	1910	.232
R24	1-1/2	1.5000	2-5/8	2.6250	.4375	.5626	-	-	-	-	0.031	2906	2084	.309

1600 SERIES

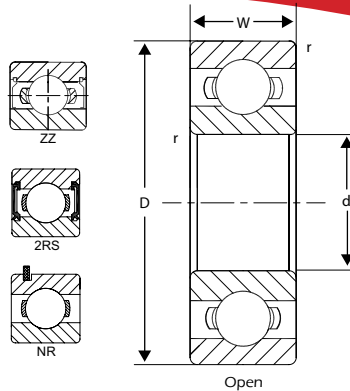
INCH



RBI Bearing No.	Bore d		Outer Diameter D		Width W		Radius r (in.)	Basic Load Rating (lbs.)		Weight (lbs.)
	Fraction	in.	Fraction	in.	Fraction	in.		Dynamic C	Static C ₀	
1601 1602	3/16 1/4	.1875 .2500	11/16 11/16	.6875 .6875	*1/4 *1/4	.2500 .2500	0.011 0.011	440	170	.015 .013
1603 1604	5/16 3/8	.3125 .3750	7/8 7/8	.8750 .8750	**9/32 **9/32	.2812 .2812	0.011 0.011	740 750	310 320	.024 .032
1605 1606 1607	5/16 3/8 7/16	.3125 .3750 .4375	29/32 29/32 29/32	.9062 .9062 .9062	5/16 5/16 5/16	.3125 .3125 .3125	0.011 0.011 0.011	740 750 610	310 320 290	.026 .030 .035
1614 1615 1616	3/8 7/16 1/2	.3750 .4375 .5000	1-1/8 1-1/8 1-1/8	1.1250 1.1250 1.1250	3/8 3/8 3/8	.3750 .3750 .3750	0.023 0.023 0.023	1150	540	.077 .071 .066
1620 1621 1622 1623	7/16 1/2 9/16 5/8	.4375 .5000 .5625 .6250	1-3/8 1-3/8 1-3/8 1-3/8	1.3750 1.3750 1.3750 1.3750	7/16 7/16 7/16 7/16	.4375 .4375 .4375 .4375	0.023 0.023 0.023 0.023	1720	840	.110 .106 .101 .088
1628 1630	5/8 3/4	.6250 .7500	1-5/8 1-5/8	1.6250 1.6250	1/2 1/2	.5000 .5000	0.023 0.023	2100 2110	1110 1140	.159 .143
1633 1635	5/8 3/4	.6250 .7500	1-3/4 1-3/4	1.7500 1.7500	1/2 1/2	.5000 .5000	0.025 0.023	3060	1480	.203 .187
1638 1640 1641	3/4 7/8 1	.7500 .8750 1.0000	2 2 2	2.0000 2.0000 2.0000	9/16 9/16 9/16	.5625 .5625 .5625	0.039 0.039 0.039	2890 2260 2410	1500 1330 1460	.265 .247 .221
1652 1654	1-1/8 1-1/4	1.1250 1.2500	2-1/2 2-1/2	2.5000 2.5000	5/8 5/8	.6250 .6250	0.043 0.043	4380 3650	2560 2330	.463 .419
1657 1658	1-1/4 1-5/16	1.2500 1.3125	2-9/16 2-9/16	2.5625 2.5625	11/16 11/16	.6875 .6875	0.043 0.035	4380	2560	.474 .441

*Width sealed = 5/16 in. ** Width sealed = 11/32 in.

CALL 1-800-708-2128 TO ORDER.

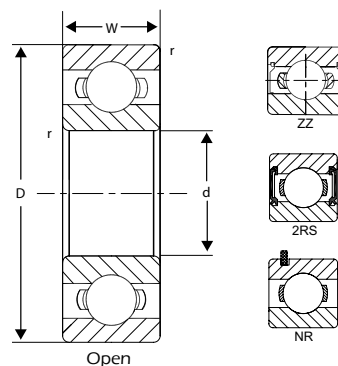


RBI Bearing No.	Bore d		Outer Diameter D		Width W		Radius r		Basic Load Rating (lbs.)		Weight (lbs.)
	mm	in.	mm	in.	mm	in.	mm	in.	Dynamic C	Static C ₀	
6000	10	.3937	26	1.0236	8	.3150	0.3	.011	1030	440	.042
6001	12	.4724	28	1.1024	8	.3150	0.3	.011	1150	530	.049
6002	15	.5906	32	1.2598	9	.3543	0.3	.011	1260	640	.066
6003	17	.6693	35	1.3780	10	.3937	0.3	.011	1350	740	.086
6004	20	.7874	42	1.6535	12	.4724	0.6	.023	2110	1140	.152
6005	25	.9843	47	1.8504	12	.4724	0.6	.023	2260	1330	.176
6006	30	1.1811	55	2.1654	13	.5118	1.0	.039	2980	1870	.256
6007	35	1.3780	62	2.4409	14	.5512	1.0	.039	3650	2360	.342
6008	40	1.5748	68	2.6772	15	.5906	1.0	.039	3830	2650	.423
6009	45	1.7717	75	2.9528	16	.6299	1.0	.039	4740	3340	.540
6010	50	1.9685	80	3.1496	16	.6299	1.0	.039	4950	3700	.575
6011	55	2.1654	90	3.5433	18	.7087	1.0	.039	6810	4980	.849
6012	60	2.3622	95	3.7402	18	.7087	1.1	.043	7130	5490	.915
6013	65	2.5591	100	3.9370	18	.7087	1.1	.043	7210	5660	.959
6014	70	2.7559	110	4.3307	20	.7874	1.1	.043	8680	6920	1.33
6015	75	2.9528	115	4.5276	20	.7874	1.1	.043	9050	7530	1.41
6016	80	3.1496	125	4.9213	22	.8661	1.1	.043	10720	9030	1.87
6017	85	3.3465	130	5.1181	22	.8661	1.1	.043	111430	9740	1.96
6018	90	3.5433	140	5.5118	24	.9449	1.5	.059	13080	11290	2.56
6019	95	3.7402	145	5.7087	24	.9449	1.5	.059	13000	11410	2.67
6020	100	3.9370	150	5.9055	24	.9449	1.5	.059	14500	12780	2.76
6021	105	4.1339	160	6.2992	26	1.0236	2.0	.078	16180	14410	3.51
6022	110	4.3307	170	6.6929	28	1.1024	2.0	.078	18440	16550	4.32
6024	120	4.7244	180	7.0866	28	1.1024	2.0	.078	19730	18070	4.56
6026	130	5.1181	200	7.8740	33	1.2992	2.0	.078	23640	22050	6.97

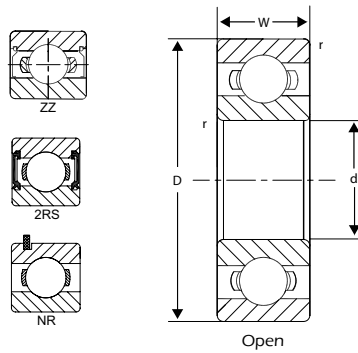
Larger sizes or new sizes available upon request.

6200 SERIES

METRIC



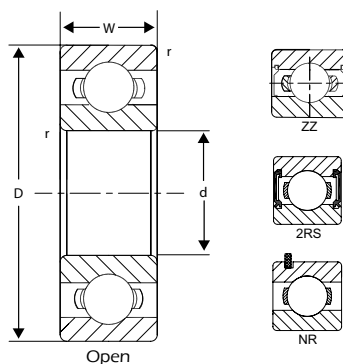
RBI Bearing No.	Bore d		Outer Diameter D		Width W		Radius r		Basic Load Rating (lbs.)		Weight (lbs.)
	mm.	in.	mm.	in.	mm.	in.	mm.	in.	Dynamic C	Static C ₀	
6200	10	.3937	30	1.1811	9	.3543	0.6	.023	1150	530	.071
6201	12	.4724	32	1.2598	10	.3937	0.6	.023	1530	680	.082
6201-1/2	12.7	.5000	32	1.2598	10	.3937	0.6	.023	1535	685	.082
6201-13	13	.5118	32	1.2598	10	.3937	0.6	.023	1540	690	.082
6202	15	.5906	35	1.3780	11	.4331	0.6	.023	1710	830	.099
6202-1/2	12.7	.5000	35	1.3780	11	.4331	0.6	.023	1740	805	.110
6202-5/8	15.875	.6250	35	1.3780	11	.4331	0.6	.023	1740	805	.090
6202-16	16	.6299	35	1.3780	11	.4331	0.6	.023	1720	840	.090
6203	17	.6693	40	1.5748	12	.4724	0.6	.023	2150	1070	.143
6203-1/2	12.7	.5000	40	1.5748	12	.4724	0.6	.023	2160	1030	.154
6203-15	15	.5906	40	1.5748	12	.4724	0.6	.023	2140	1050	.148
6203-5/8	15.875	.6250	40	1.5748	12	.4724	0.6	.023	2160	1030	.150
6203-16	16	.6299	40	1.5748	12	.4724	0.6	.023	2140	1060	.150
6203-3/4	19.05	.7500	40	1.5748	12	.4724	0.6	.023	2160	1030	.140
6204	20	.7874	47	1.8504	14	.5512	1.0	.039	2880	1480	.234
6204-3/4	19.05	.7500	47	1.8504	14	.5512	1.0	.039	2890	1500	.236
6204-7/8	22.225	.8750	47	1.8504	14	.5512	1.0	.039	2890	1500	.230
6205	25	.9843	52	2.0472	15	.5906	1.0	.039	3150	1770	.282
6205-16	25.4	1.0000	52	2.0472	15	.5906	1.0	.039	3150	1770	.280
6206	30	1.1811	62	2.4409	16	.6299	1.0	.039	4380	2550	.439
6207	35	1.3780	72	2.8346	17	.6693	1.1	.043	5770	3460	.635
6208	40	1.5748	80	3.1496	18	.7087	1.1	.043	6640	4100	.807
6209	45	1.7717	85	3.3465	19	.7480	1.1	.043	7130	4670	.897
6210	50	1.9685	90	3.5433	20	.7874	1.1	.043	7890	5260	1.02
6211	55	2.1654	100	3.9370	21	.8268	1.5	.059	9760	6620	1.34
6212	60	2.3622	110	4.3307	22	.8661	1.5	.059	10740	7470	1.73
6213	65	2.5591	120	4.7244	23	.9055	1.5	.059	12870	9080	2.18
6214	70	2.7559	125	4.9213	24	.9449	1.5	.059	13690	10120	2.36
6215	75	2.9528	130	5.1181	25	.9843	1.5	.059	14890	11120	2.60
6216	80	3.1496	140	5.5118	26	1.0236	2.0	.078	16100	12280	3.09
6217	85	3.3465	150	5.9055	28	1.1024	2.0	.078	18730	14410	3.95
6218	90	3.5433	160	6.2992	30	1.1811	2.0	.078	21590	16210	4.74
6219	95	3.7402	170	6.6929	32	1.2598	2.1	.082	24810	18800	5.78
6220	100	3.9370	180	7.0866	34	1.3386	2.1	.082	27480	21040	6.92
6221	105	4.1339	190	7.4803	36	1.4173	2.1	.082	29920	23690	8.16
6222	110	4.3307	200	7.8740	38	1.4961	2.1	.082	32420	26480	9.61
6224	120	4.7244	215	8.4646	40	1.5748	2.1	.082	34940	29750	11.4
6226	130	5.1181	230	9.0551	40	1.5748	3.0	.059	37410	33380	12.8



RBI Bearing No.	Bore d		Outer Diameter D		Width W		Radius r		Basic Load Rating (lbs.)		Weight (lbs.)
	mm.	in.	mm.	in.	mm.	in.	mm.	in.	Dynamic C	Static C ₀	
6300	10	.3937	35	1.3780	11	.4331	0.6	.023	1700	760	.117
6301	12	.4724	37	1.4567	12	.4724	1.0	.039	2180	950	.132
6302	15	.5906	42	1.6535	13	.5118	1.0	.039	2550	1200	.181
6303	17	.6693	47	1.8504	14	.5512	1.0	.039	3040	1470	.254
6304	20	.7874	52	2.0472	15	.5906	1.1	.043	3590	1770	.317
6305	25	.9843	62	2.4409	17	.6693	1.1	.043	5040	2590	.511
6306	30	1.1811	72	2.8346	19	.7480	1.1	.043	6060	3400	.763
6307	35	1.3780	80	3.1496	21	.8268	1.5	.059	7490	4300	1.01
6308	40	1.5748	90	3.5433	23	.9055	1.5	.059	9160	5400	1.40
6309	45	1.7717	100	3.9370	25	.9843	1.5	.059	11870	7130	1.84
6310	50	1.9685	110	4.3307	27	1.0630	2.0	.078	13910	8350	2.36
6311	55	2.1654	120	4.7244	29	1.1417	2.0	.078	16080	10050	3.02
6312	60	2.3622	130	5.1181	31	1.2205	2.1	.082	18390	11690	3.75
6313	65	2.5591	140	5.5118	33	1.2992	2.1	.082	21120	13620	4.59
6314	70	2.7559	150	5.9055	35	1.3780	2.1	.082	23430	15340	5.56
6315	75	2.9526	160	6.2992	37	1.4567	2.1	.082	25520	17350	6.66
6316	80	3.1496	170	6.6929	39	1.5354	2.1	.082	27660	19500	7.91
6317	85	3.3465	180	7.0866	41	1.6142	3.0	.118	29840	21770	9.33
6318	90	3.5433	190	7.4803	43	1.6929	3.0	.118	32410	24450	10.8
6319	95	3.7402	200	7.8740	45	1.7717	3.0	.118	35240	27500	12.5
6320	100	3.9370	215	8.4646	47	1.8504	3.0	.118	38920	31650	15.4
6321	105	4.1339	225	8.8583	49	1.9291	3.0	.118	41320	34510	17.7
6322	110	4.3307	240	9.4488	50	1.9685	3.0	.118	46110	40190	21.0
6324	120	4.7244	260	10.2362	55	2.1654	3.0	.118	51200	46750	27.3

6800 SERIES

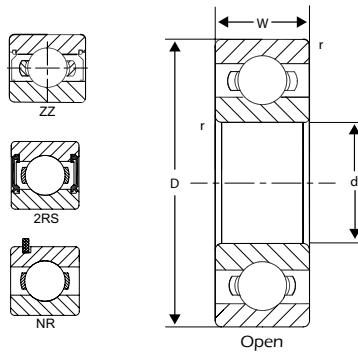
METRIC



RBI Bearing No.	Bore d		Outer Diameter D		Width W		Radius r		Basic Load Rating (lbs.)		Weight (lbs.)	
	mm.	in.	mm.	in.	mm.	in.	mm.	in.	Dynamic C	Static C ₀	kg.	lbs.
6800	10	.3937	19	.7480	5	.1969	0.3	.011	360	170	.005	.011
6801	12	.4724	21	.8268	5	.1969	0.3	.011	430	240	.006	.013
6802	15	.5906	24	.9449	5	.1969	0.3	.011	470	290	.007	.015
6803	17	.6693	26	1.0236	5	.1969	0.3	.011	480	310	.008	.018
6804	20	.7874	32	1.2598	7	.2756	0.3	.011	780	570	.019	.042
6805	25	.9843	37	1.4567	7	.2756	0.3	.011	830	600	.022	.049
6806	30	1.1811	42	1.6535	7	.2756	0.3	.011	900	730	.026	.057
6807	35	1.3780	47	1.8504	7	.2756	0.3	.011	960	850	.029	.064
6808	40	1.5748	52	2.0472	7	.2756	0.3	.011	1020	950	.033	.073
6809	45	1.7717	58	2.2835	7	.2756	0.3	.011	1070	1050	.040	.088
6810	50	1.9685	65	2.5591	7	.2756	0.3	.011	1680	1720	.052	.115
6811	55	2.1654	72	2.8346	9	.3543	0.3	.011	2040	1990	.083	.183
6812	60	2.3622	78	3.0709	10	.3937	0.3	.011	2060	2050	.106	.234
6813	65	2.5591	85	3.3465	10	.3937	0.6	.023	2120	2200	.128	.282
6814	70	2.7559	90	3.5433	10	.3937	0.6	.023	2240	2440	.137	.302
6815	75	2.9528	95	3.7402	10	.3937	1	.039	2820	2890	.145	.319
6816	80	3.1496	100	3.9370	10	.3937	1	.039	2850	2990	.154	.338
6817	85	3.3465	110	4.3307	13	.5118	1.5	.059	4200	4250	.270	.594
6818	90	3.5433	115	4.5276	13	.5118	1.5	.059	4250	4450	.285	.627
6819	95	3.7402	120	4.7244	13	.5118	1.5	.059	7400	7100	.300	.660
6820	100	3.9370	125	4.9213	13	.5118	1.5	.059	4400	4750	.313	.668
6821	105	4.1339	130	5.1181	13	.5118	1.5	.059	4450	4950	.330	.726
6822	110	4.3307	140	5.5118	16	.6299	1.5	.059	6450	7200	.515	1.133
6824	120	4.7244	150	5.9055	16	.6299	1.5	.059	6500	7400	.555	1.760
6826	130	5.1181	165	6.4961	18	.7087	2	.078	7420	8830	.800	1.760

Larger sizes or new sizes available upon request.

CALL 1-800-708-2128 TO ORDER.

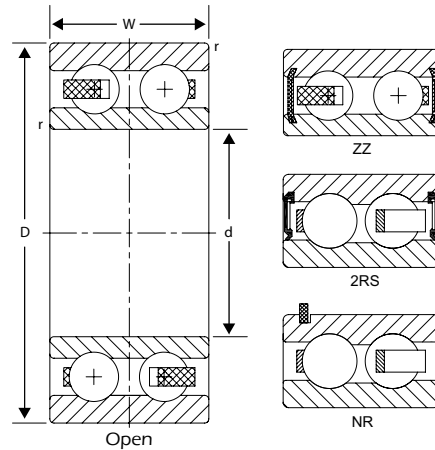


RBI Bearing No.	Bore d		Outer Diameter D		Width W		Radius r		Basic Load Rating (lbs.)		Weight (lbs.)
	mm.	in.	mm.	in.	mm.	in.	mm.	in.	Dynamic C	Static C ₀	
6900	10	.3937	22	.8661	6	.2362	0.3	.011	610	290	.020
6901	12	.4724	24	.9449	6	.2362	0.3	.011	650	330	.024
6902	15	.5906	28	1.1024	7	.2756	0.3	.011	970	510	.035
6903	17	.6693	30	1.1811	7	.2756	0.3	.011	1030	580	.040
6904	20	.7874	37	1.4567	9	.3543	0.3	.011	1430	830	.079
6905	25	.9843	42	1.6535	9	.3543	0.3	.011	1580	1030	.093
6906	30	1.1811	47	1.8504	9	.3543	0.3	.011	1630	1140	.106
6907	35	1.3780	55	2.1654	10	.3937	0.6	.023	2150	1560	.163
6908	40	1.5748	62	2.4409	12	.4724	0.6	.023	3080	2260	.243
6909	45	1.7717	68	2.6772	12	.4724	0.6	.023	3180	2480	.282
6910	50	1.9685	72	2.8346	12	.4724	0.6	.023	3270	2670	.291
6911	55	2.1654	80	3.1496	13	.5118	1.0	.059	4240	3440	.397
6912	60	2.3622	85	3.3465	13	.5118	1.0	.039	4370	3710	.425
6913	65	2.5591	90	3.5433	13	.5118	1.0	.039	4490	3980	.454
6914	70	2.7559	100	3.9370	16	.6299	1.0	.039	5340	4830	.736
6915	75	2.9528	105	4.1339	16	.6299	1.0	.039	5480	5150	.778
6916	80	3.1496	110	4.3307	16	.6299	1.5	.059	5600	5400	.822
6917	85	3.3465	120	4.7244	18	.7087	1.5	.059	7200	6650	1.18
6918	90	3.5433	125	4.9213	18	.7087	1.5	.059	4250	4450	1.22
6919	95	3.7402	130	5.1181	18	.7087	1.5	.059	7550	7550	1.28
6920	100	3.9370	140	5.5118	20	.7874	2	.079	9250	8900	1.73
6921	105	4.1339	145	5.7087	20	.7874	2	.079	9550	9450	1.80
6922	110	4.3307	150	5.9005	20	.7874	2	.079	9800	10000	1.87
6924	120	4.7244	165	6.4961	22	.8661	2	.079	11900	12200	2.54
6926	130	5.1181	180	7.0866	24	.9449	2	.079	14300	15050	3.47

Larger sizes or new sizes available upon request.

5200 SERIES

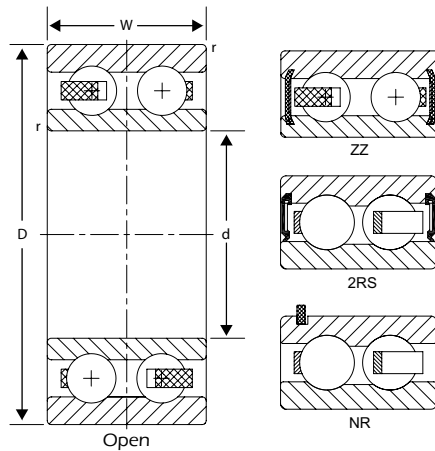
DOUBLE ROW METRIC



RBI Bearing No.	Bore d		Outer Diameter D		Width W			Radius r		Basic Load Rating (lbs.)		Weight (lbs.)
	mm.	in.	mm.	in.	mm.	Fraction	in.	mm.	in.	Dynamic C	Static C ₀	
5200	10	.3937	30	1.1811	14.3	9/16	.5630	0.6	.023	1330	810	0.13
5201	12	.4742	32	1.2598	15.9	5/8	.6260	0.6	.023	1710	1010	0.16
5202	15	.5906	35	1.3780	15.9	5/8	.6260	0.6	.023	1980	1320	0.18
5203	17	.6693	40	1.5748	17.5	11/16	.6890	0.6	.023	2430	1600	0.20
W5203	17	.6693	40	1.5748	20.6	13/16	.8110	0.6	.023	2430	1600	0.20
5204	20	.7874	47	1.8504	20.6	13/16	.8110	1.0	.039	3840	2580	0.34
W5204	20	.7874	47	1.8504	23.8	15/16	.9375	1.0	.039	3840	2580	0.36
5205	25	.9843	52	2.0472	20.6	13/16	.8110	1.0	.039	4090	3000	0.42
W5205	25	.9843	52	2.0472	23.8	15/16	.9375	1.0	.039	4090	3000	0.45
5206	30	1.1811	62	2.4409	23.8	15/16	.9375	1.0	.039	5480	3990	0.64
W5206	30	1.1811	62	2.4409	27.0	1-1/16	1.0630	1.0	.039	5480	3990	0.74
5207	35	1.3780	72	2.8346	27.0	1-1/16	1.0630	1.1	.043	6850	5380	0.95
W5207	35	1.3780	72	2.8346	30.2	1-3/16	1.1890	1.1	.043	6850	5380	1.21
5208	40	1.5748	80	3.1496	30.2	1-3/16	1.1890	1.1	.043	9020	6910	1.26
5209	45	1.7717	85	3.3465	30.2	1-3/16	1.1890	1.1	.043	9620	7860	1.37
5210	50	1.9685	90	3.5433	30.2	1-3/16	1.1890	1.1	.043	10170	8800	1.48
5211	55	2.1654	100	3.9370	33.3	1-15/16	1.3110	1.5	.059	12140	10730	2.17
5212	60	2.3622	110	4.3307	36.5	1-7/16	1.4370	1.5	.059	15050	13490	2.80
5213	65	2.5591	120	4.7244	38.1	1-1/2	1.5000	1.5	.059	16530	15150	3.46
5214	70	2.7559	125	4.9213	39.7	1-9/16	1.5630	1.5	.059	16410	15300	3.97
5215	75	2.9528	130	5.1181	41.3	1-5/8	1.6260	1.5	.059	19790	18520	4.20
5216	80	3.1496	140	5.5118	44.4	1-3/4	1.7480	2.0	.078	22400	20950	5.50
5217	85	3.3465	150	5.9055	49.2	1-5/16	1.9375	2.0	.078	26070	24700	7.50
5218	90	3.5433	160	6.2992	52.4	2-1/16	2.0630	3.0	.118	31500	29000	9.90

5300 SERIES

DOUBLE ROW METRIC



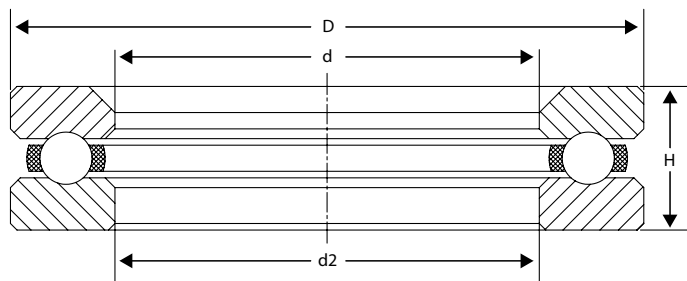
RBI Bearing No.	Bore d		Outer Diameter D		Width W			Radius r		Basic Load Rating (lbs.)		Weight (lbs.)
	mm.	in.	mm.	in.	mm.	Fraction	in.	mm.	in.	Dynamic C	Static C ₀	
5300	10	.3937	35	1.3780	19.0	3/4	.7500	0.6	.024	1731	1224	0.22
5301	12	.4724	37	1.4567	19.0	3/4	.7500	1.0	.039	2260	1360	0.23
5302	15	.5906	42	1.6535	19.0	3/4	.7500	1.0	.039	2250	1420	0.38
5303	17	.6693	47	1.8504	22.2	7/8	.8740	1.0	.039	3840	2540	0.49
5304	20	.7874	52	2.0472	22.2	7/8	.8740	1.1	.043	3830	2630	0.51
W5304	20	.7874	52	2.0472	25.4	1	1.0000	1.1	.043	3830	2630	0.54
5305	25	.9843	62	2.4409	25.4	1	1.0000	1.1	.043	5960	4040	0.75
W5305	25	.9843	62	2.4409	29.6	1-1/8	1.1654	1.1	.043	5960	4040	0.89
5306	30	1.1811	72	2.8346	30.2	1-3/16	1.1890	1.1	.043	8370	5840	1.13
W5306	30	1.1811	72	2.8346	33.3	1-5/16	1.3125	1.1	.043	8370	5840	1.41
5307	35	1.3780	80	3.1496	34.9	1-3/8	1.3740	1.5	.059	10000	7160	1.74
W5307	35	1.3780	80	3.1496	38.1	1-1/2	1.5000	1.5	.059	10000	7160	1.89
5308	40	1.5748	90	3.5433	36.5	1-7/16	1.4370	1.5	.059	12360	9070	2.32
5309	45	1.7717	100	3.9370	39.7	1-9/16	1.5630	1.5	.059	16290	12190	3.10
5310	50	1.9685	110	4.3307	44.4	1-3/4	1.7480	2.0	.078	19200	14650	4.00
5311	55	2.1654	120	4.7244	49.2	1-15/16	1.9370	2.0	.078	20760	16970	5.11
5312	60	2.3622	130	5.1181	54.0	2-1/8	2.1260	2.1	.082	27330	21530	6.72
5313	65	2.5591	140	5.5118	58.7	2-5/16	2.3110	2.1	.082	30950	24790	8.60
5314	70	2.7559	150	5.9055	63.5	2-1/2	2.5000	2.1	.082	31000	25330	10.80
5315	75	2.9528	160	6.2992	68.3	2-11/16	2.6890	2.1	.082	38000	31500	12.10
5316	80	3.1496	170	6.6929	68.3	2-11/16	2.6890	2.1	.082	42000	34500	15.00

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51100, 51200, 51300 SERIES

THRUST METRIC



RBI Bearing No.	Bore d				Outer Diameter D		Width H		Basic Load Rating (lbs.)		Weight (lbs.)
	d		d2								
	mm.	in.	mm.	in.	mm.	in.	mm.	in.	Dynamic C _a	Static C _{0a}	
51100	10	.3937	11	.433	24	.9449	9	.3543	2250	3150	.046
51101	12	.4724	13	.512	26	1.0236	9	.3543	2320	3450	.051
51102	15	.5906	16	.630	28	1.1024	9	.3543	2370	3750	.053
51103	17	.6693	18	.709	30	1.1811	9	.3543	2430	4100	.057
51104	20	.7874	21	.827	35	1.3780	10	.3937	3395	5980	.088
51105	25	.9843	26	1.024	42	1.6535	11	.4331	4400	8350	.132
51106	30	1.1811	32	1.260	47	1.8504	11	.4331	4600	9500	.152
51107	35	1.3780	37	1.457	52	2.0472	12	.4724	4960	11125	.187
51108	40	1.5748	42	1.654	60	2.3622	13	.5118	6050	14100	.276
51109	45	1.7717	47	1.850	65	2.5591	14	.5512	6250	15500	.326
51110	50	1.9685	52	2.047	70	2.7559	14	.5512	6450	17000	.355
51111	55	2.1654	57	2.244	78	3.0709	16	.6299	7800	20900	.498
51112	60	2.3622	62	2.441	85	3.3465	17	.6693	9300	25300	.653
51113	65	2.5591	67	2.638	90	3.5433	18	.7087	9400	26400	.745
51114	70	2.7559	72	2.835	95	3.7402	18	.7087	9700	28500	.785
51115	75	2.9528	77	3.031	100	3.9370	19	.7480	10000	30500	.880
51200	10	.3937	12	.472	26	1.0236	11	.4331	2850	3850	.066
51201	12	.4724	14	.551	28	1.1024	11	.4331	2960	4250	.075
51202	15	.5906	17	.669	32	1.2598	12	.4724	3750	5600	.101
51203	17	.6693	19	.748	35	1.3780	12	.4724	3850	6150	.119
51204	20	.7874	22	.866	40	1.5748	14	.5512	5050	8500	.179
51205	25	.9843	27	1.063	47	1.8504	15	.5906	6250	11300	.245
51206	30	1.1811	32	1.260	52	2.0472	16	.6299	6600	13100	.306
51207	35	1.3780	37	1.457	62	2.4409	18	.7087	8800	17600	.474
51208	40	1.5748	42	1.654	68	2.6772	19	.7480	10650	22100	.608
51209	45	1.7717	47	1.850	73	2.8740	20	.7874	10700	23600	.699
51210	50	1.9685	52	2.047	78	3.0709	22	.8661	10900	25100	.833
51211	55	2.1654	57	2.244	90	3.5433	25	.9843	15600	35500	1.34
51212	60	2.3633	62	2.441	95	3.7402	26	1.0236	16070	37995	1.49
51213	65	2.5591	67	2.638	100	3.9370	27	1.0630	16800	42500	1.69
51214	70	2.7559	72	2.835	105	4.1339	27	1.0630	17100	44500	1.75
51215	75	2.9528	77	3.031	110	4.3307	27	1.0630	17535	47000	1.93
51305	25	.9843	27	1.063	52	2.0472	18	.7087	8050	13800	.388
51306	30	1.1811	32	1.260	60	2.3622	21	.8268	9600	17700	.593
51307	35	1.3780	37	1.457	68	2.6772	24	.9449	12500	23500	.845
51308	40	1.5748	42	1.654	78	3.0709	26	1.0236	15600	30000	1.21
51309	45	1.7717	47	1.850	85	3.3465	28	1.1024	18000	36500	1.51

Larger sizes available upon request.

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LIFE & LOAD DEFINITIONS

The life of a bearing depends on several physical (design, material, manufacturing) and application (load, speed, temperature, lubrication, fits, sealing) related factors. Even under ideal operating conditions all bearings will eventually fail due to fatigue failure, which results from repeated contact stresses. Unfortunately, it is not possible to predict the statistical life of a group of identical bearings - typically expressed in hours or millions of revolutions, the L10 life calculation is based on the criteria that 90% of the group will achieve the predicted life without and initial signs of fatigue failure.

Basic Dynamic Load Rating (C_r) - Value of load that a bearing can carry 1,000,000 with 90% reliability. For radial bearings, the rating is based on the amount of radial load that a bearing can tolerate for 500 hours at 33 1/3 rpm. For stainless steel bearings, the basic dynamic load ratings are approximately 75% of the load ratings for 52100 chrome steel bearings.

Basic Static Load Rating (C_{or}) - Static radial load which corresponds to a calculated contact stress at the center of the most heavily loaded rolling element/raceway contact. For stainless steel bearings, the basic static load ratings are approximately 75% of the load ratings for 52100 chrome steel bearings.

Equivalent Dynamic Load (P) - Load that is placed on the bearing during application. It is based on the combination of simultaneous radial and axial forces exerted on the bearing.

Basic Rated Life - Amount of hours a bearing can operate given rotating speed and loading conditions.

L10 Life Rating - Amount of operating hours in which 90% of identical bearings subjected to identical operating conditions will attain (or surpass) before bearing failure.

$$L_{10} = (16667/n) \times (C_r/P)^K$$

L10 = Basic Life (hours)

n = Speed of Rotation (rotations per minute)

C_r = Dynamic Load Rating (N or lbf)

P = Equivalent Load (N or lbf)

K = Bearing Coefficient (Ball Bearings = 3, Roller Bearings = 10/3)

COMMON LUBRICANTS AND THEIR PROPERTIES

Lubrication is necessary to ensure proper bearing performance. Grease lubricants are comprised of both a base oil and thickener. Oil lubricants do not contain a thickening agent. Thickeners act as a sponge to retain the base oil and keep it in place.

A large assortment of additives can be added to the thickener to add several benefits such as preventing oxidation, handling extreme pressure, etc.

Typically, greases will have a semi-solid to solid consistency that allows it to stay in place within the bearing longer than oil. It is in this aspect that grease holds an advantage over oil.

The typical grease fill within **RBI bearings** is between 25 and 35 percent. A minimum grease amount is important to allow for the bearing to remain lubricated throughout its entire service life. However, a limit must be placed on how much grease is used because an excessive volume of grease can lead to an increase in heat generation during operation.

For extreme operation conditions, contact **RBI Bearing's engineering department at 1-800-708-2128** for recommendations on grease fill. Information regarding some of our commonly used greases can be found in the table below.

Product	Company	Base Oil	Thickener	Min Temp [°F]	Max Temp [°F]	Dropping Pt. [°F]	cSt at 40°C	cSt at 100°C	Color
Alvania RL2	Shell	Petroleum	Lithium	-29	275	385	98.0	9.40	Amber
Beacon 325	Exxon	Diester	Lithium	-58	248	356	11.8	3.25	Tan
DC44	Dow Corning	Silicone	Lithium	-40	400	400	88.0	22.00	Brown/Amber
Dolium BRB	Shell	Mineral	Polyurea	-40	302	500	129.0	12.90	Purple
Mobil 28	Mobil	PAO	Bentonite	-80	351	500	40.0	28.00	Red
Mobil Polyrex EM2	Mobil	Mineral	Polyurea	-20	350	550	115.0	12.20	Blue
Multemp SRL	Kyodo Yushi	Ester	Lithium	-40	302	375	37.8	28.60	White
SRI-2	Chevron	Mineral	Polyurea	-22	350	470	116.0	12.30	Dark Green

RADIAL BALL BEARING TOLERANCES

ABEC 1 Tolerances

Bore Diameter					
Over	Incl	Tol (+0)	Over	Incl	Tol (+0)
mm	µm		Inch		0.0001"
2.5	10	-8	0.0984	0.3937	-3
10	18	-8	0.3937	0.7087	-3
18	30	-10	0.7087	1.1811	-4
30	50	-12	1.1811	1.9685	-5
50	80	-15	1.9685	3.1496	-6
80	120	-20	3.1496	4.7244	-8
120	150	-25	4.7244	5.9055	-10
150	180	-25	5.9055	7.0866	-10
180	250	-30	7.0866	9.8425	-12

ABEC 3 Tolerances

Bore Diameter					
Over	Incl	Tol (+0)	Over	Incl	Tol (+0)
mm	µm		Inch		0.0001"
2.5	10	-7	0.0984	0.3937	-3
10	18	-7	0.3937	0.7087	-3
18	30	-8	0.7087	1.1811	-3
30	50	-10	1.1811	1.9685	-4
50	80	-12	1.9685	3.1496	-5
80	120	-15	3.1496	4.7244	-6
120	150	-18	4.7244	5.9055	-7
150	180	-18	5.9055	7.0866	-7
180	250	-22	7.0866	9.8425	-9

ABEC 5 Tolerances

Bore Diameter					
Over	Incl	Tol (+0)	Over	Incl	Tol (+0)
mm	µm		Inch		0.0001"
2.5	10	-5	0.0984	0.3937	-2
10	18	-5	0.3937	0.7087	-2
18	30	-6	0.7087	1.1811	-2
30	50	-8	1.1811	1.9685	-3
50	80	-9	1.9685	3.1496	-4
80	120	-10	3.1496	4.7244	-4
120	150	-13	4.7244	5.9055	-5
150	180	-13	5.9055	7.0866	-5
180	250	-15	7.0866	9.8425	-6

Outside Diameter

Over	Incl	Tol (+0)	Over	Incl	Tol (+0)
mm	µm		Inch		0.0001"
6	18	-8	0.2362	0.7087	-3
18	30	-9	0.7087	1.1811	-4
30	50	-11	1.1811	1.9685	-4
50	80	-13	1.9685	3.1496	-5
80	120	-15	3.1496	4.7244	-6
120	150	-18	4.7244	5.9055	-7
150	180	-25	5.9055	7.0866	-10
180	250	-30	7.0866	9.8425	-12
250	315	-35	9.8425	12.4016	-14

Outside Diameter

Over	Incl	Tol (+0)	Over	Incl	Tol (+0)
mm	µm		Inch		0.0001"
6	18	-7	0.2362	0.7087	-3
18	30	-8	0.7087	1.1811	-3
30	50	-9	1.1811	1.9685	-4
50	80	-11	1.9685	3.1496	-4
80	120	-13	3.1496	4.7244	-5
120	150	-15	4.7244	5.9055	-6
150	180	-18	5.9055	7.0866	-7
180	250	-20	7.0866	9.8425	-8
250	315	-25	9.8425	12.4016	-10

Outside Diameter

Over	Incl	Tol (+0)	Over	Incl	Tol (+0)
mm	µm		Inch		0.0001"
6	18	-5	0.2362	0.7087	-2
18	30	-6	0.7087	1.1811	-2
30	50	-7	1.1811	1.9685	-3
50	80	-9	1.9685	3.1496	-4
80	120	-10	3.1496	4.7244	-4
120	150	-11	4.7244	5.9055	-4
150	180	-13	5.9055	7.0866	-5
180	250	-15	7.0866	9.8425	-6
250	315	-18	9.8425	12.4016	-7

Outside Diameter

Over	Incl	Tol (+0)	Over	Incl	Tol (+0)
mm	µm		Inch		0.0001"
2.5	10	-120	0.0984	0.3937	-47
10	18	-120	0.3937	0.7087	-47
18	30	-120	0.7087	1.1811	-47
30	50	-120	1.1811	1.9685	-47
50	80	-150	1.9685	3.1496	-59
80	120	-200	3.1496	4.7244	-79
120	150	-250	4.7244	5.9055	-98
150	180	-250	5.9055	7.0866	-98
180	250	-300	7.0866	9.8425	-118

Outside Diameter

Over	Incl	Tol (+0)	Over	Incl	Tol (+0)
mm	µm		Inch		0.0001"
2.5	10	-120	0.0984	0.3937	-47
10	18	-120	0.3937	0.7087	-47
18	30	-120	0.7087	1.1811	-47
30	50	-120	1.1811	1.9685	-47
50	80	-150	1.9685	3.1496	-59
80	120	-200	3.1496	4.7244	-79
120	150	-250	4.7244	5.9055	-98
150	180	-250	5.9055	7.0866	-98
180	250	-300	7.0866	9.8425	-118

Outside Diameter

Over	Incl	Tol (+0)	Over	Incl	Tol (+0)
mm	µm		Inch		0.0001"
2.5	10	-120	0.0984	0.3937	-47
10	18	-120	0.3937	0.7087	-47
18	30	-120	0.7087	1.1811	-47
30	50	-120	1.1811	1.9685	-47
50	80	-150	1.9685	3.1496	-59
80	120	-200	3.1496	4.7244	-79
120	150	-250	4.7244	5.9055	-98
150	180	-250	5.9055	7.0866	-98
180	250	-300	7.0866	9.8425	-118

RADIAL BALL BEARINGS INTERNAL CLEARANCE

Single Row Ball Bearings

Bore Diameter (mm)		C2		Normal		C3		C4		C5	
Over	Incl	min	max	min	max	min	max	min	max	min	max
0	2.5	0	6	4	11	10	20	-	-	-	-
2.5	6	0	7	2	13	8	23	-	-	-	-
6	10	0	7	2	13	8	23	14	29	20	37
10	18	0	9	3	18	11	25	18	33	25	45
18	24	0	10	5	20	13	28	20	36	28	48
24	30	1	11	5	20	13	28	23	41	30	53
30	40	1	11	6	20	15	33	28	46	40	64
40	50	1	11	6	23	18	36	30	51	45	73
50	65	1	15	8	28	23	43	38	61	55	90
65	80	1	15	10	30	25	51	46	71	65	105
80	100	1	18	12	36	30	58	53	84	75	120
100	120	2	20	15	41	36	66	61	97	90	140
120	140	2	23	18	48	41	81	71	114	105	160
140	160	2	23	18	53	46	91	81	130	120	180
160	180	2	25	20	61	53	102	91	147	135	200
180	200	2	30	25	71	63	117	107	163	150	230
200	225	2	35	25	85	75	140	125	195	175	265
225	250	2	40	30	95	85	160	145	225	205	300
250	280	2	45	35	105	90	170	155	245	225	340

Double Row Ball Bearings

Bore Diameter (mm)		C1		C2		Normal		C3		C4	
Over	Incl	min	max	min	max	min	max	min	max	min	max
0	10	3	8	6	12	8	15	15	22	22	30
10	18	3	8	6	12	8	15	15	24	30	40
18	30	3	10	6	12	10	20	20	32	40	55
30	50	3	10	8	14	14	25	25	40	55	75
50	80	3	11	11	17	17	32	32	50	75	95
80	100	3	13	13	22	22	40	40	60	95	120
100	120	3	15	15	30	30	50	50	75	110	140
120	150	3	16	16	33	35	55	55	80	130	170
150	180	3	18	18	35	35	60	60	90	150	200
180	200	3	20	20	40	40	65	65	100	180	240

FIT SELECTION FOR DEEP GROOVE BALL BEARINGS

The table below shows the recommended shaft fits for a variety of load magnitudes and types, for a given bore diameter. The recommendations serve only as guidelines and customers should consult engineering to find the proper fits for their application.

Recommended Shaft Fits

Design and Operation Conditions			Ball Bearings		
Rotational Conditions	Inner Ring Axial Displaceability	Radial Loading	Bore Diameter mm (Inches)		Fit
			Over	Incl	
Inner Ring Rotating in relation to Load Direction -or- Load Direction is Indeterminate		Light	0	18 (0.7087)	H5
			18 (0.7087)	All	J6
		Normal	0	18 (0.7087)	J5
			18 (0.7087)	All	K5
		Heavy	18 (0.7087)	100 (3.9370)	K5
			100 (3.9370)	All	M5
Inner Ring Stationary in Relation to Load Direction	Inner Ring must be easily axially displaceable	Light / Normal / Heavy	All Sizes		G6
	Inner Ring need not be easily axially displaceable	Light / Normal / Heavy	All Sizes		H6
Pure Thrust (Axial) Load			All Sizes		J6

FIT SELECTION FOR DEEP GROOVE BALL BEARINGS

Inner Diameter - ABEC 1 Shaft Fits

Dimensions in mm, Dev and Fits in μm

Bore Diameter			g6		h6		h5		j5		j6		k5		m5		m6	
Over	Incl	Dev	Dev	Fit	Dev	Fit	Dev	Fit	Dev	Fit	Dev	Fit	Dev	Fit	Dev	Fit	Dev	Fit
3	6	0 -8	-4 -12	12L 4T	0 -8	8L 8T	0 -5	5L 8T	3 -2	2L 11T	6 -2	2L 14T	6 1	1T 14T	9 4	4T 17T	- -	- -
6	10	0 -8	-5 -14	14L 3T	0 -9	9L 8T	0 -6	6L 8T	4 -2	2L 12T	7 -2	2L 15T	7 1	1T 15T	12 6	6T 20T	- -	- -
10	18	0 -8	-6 -17	17L 2T	0 -11	11L 8T	0 -8	8L 8T	5 -3	3L 13T	8 -3	3L 16T	9 1	1T 17T	15 7	7T 23T	- -	- -
18	30	0 -10	-7 -20	20L 3T	0 -13	13L 10T	- -	- -	5 -4	4L 15T	9 -4	4L 19T	11 2	2T 21T	17 8	8T 27T	- -	- -
30	50	0 -12	-9 -25	25L 3T	0 -16	16L 12T	- -	- -	6 -5	5L 18T	11 -5	5L 23T	13 2	2T 25T	20 9	9T 32T	25 9	9T 37T
50	120	0 -15	-10 -29	29L 5T	0 -19	19L 15T	- -	- -	6 -7	7L 21T	12 -7	7L 27T	15 2	2T 30T	24 11	11T 39T	30 11	11T 45T
120	180	0 -20	-12 -34	34L 8T	0 -22	22L 20T	- -	- -	6 -9	9L 26T	13 -9	9L 33T	18 3	3T 38T	28 13	13T 48T	35 13	13T 55T
180	200	0 -25	-14 -39	39L 11T	0 -25	25L 25T	- -	- -	7 -11	11L 32T	14 -11	11L 39T	21 3	3T 46T	33 15	15T 58T	40 15	15T 65T
200	225	0 -30	-15 -44	44L 15T	0 -29	29L 30T	- -	- -	7 -13	13L 37T	16 -13	13L 46T	24 4	4T 54T	37 17	17T 67T	46 17	17T 76T
225	250	0 -30	-15 -44	44L 15T	0 -29	29L 30T	- -	- -	7 -13	13L 37T	16 -13	13L 46T	24 4	4T 54T	37 17	17T 67T	46 17	17T 76T

ABEC 1 Housing Fits

Dimensions in inches, Dev and Fits in 0.0001 inch

Bearing Outside			G7		H7		H6		J6		K6		M6		N6		P6	
Over	Incl	Dev	Dev	Fit	Dev	Fit	Dev	Fit	Dev	Fit	Dev	Fit	Dev	Fit	Dev	Fit	Dev	Fit
10	18	0 -8	+6 +24	32L 6L	0 +18	26L 0	0 +11	19L 0	-5 +6	14L 5T	-9 +2	10L 9T	-1.5 -4	4L 15T	-20 -9	1T 20T	-26 -15	7T 26T
18	30	0 -9	+7 +28	37L 7L	0 +21	30L 0	0 +13	22L 0	-5 +8	17L 5T	-11 +2	11L 11T	-17 -4	5L 17T	-24 -11	2T 24T	-31 -18	9T 31T
30	50	0 -11	+9 +34	45L 9L	0 +25	36L 0	0 +16	27L 0	-6 +10	21L 6T	-13 +3	14L 13T	-20 -4	7L 20T	-28 -12	1T 28T	-37 -21	10T 37T
50	80	0 -13	+10 +40	53L 10L	0 +30	43L 0	0 +19	32L 0	-6 +13	26L 6T	-15 +4	17L 15T	-24 -5	8L 24T	-33 -14	1T 33T	-45 -26	13T 45T
80	120	0 -15	+12 +47	62L 12L	0 +35	50L 0	0 +22	37L 0	-6 +16	31L 6T	-18 +4	19L 18T	-28 -6	9L 28T	-38 -16	1T 38T	-52 -30	15T 52T
120	150	0 -18	+14 +54	72L 14L	0 +40	58L 0	0 +25	43L 0	-7 +18	36L 7T	-21 +4	22L 21T	-33 -8	10L 33T	-45 -20	2T 45T	-61 -36	18T 61T
150	180	0 -25	+14 +54	79L 14L	0 +40	65L 0	0 +25	50L 0	-7 +18	43L 7T	-21 +4	29L 21T	-33 -8	17L 33T	-45 -20	5L 45T	-61 -36	11T 61T
180	250	0 -30	+15 +61	91L 15L	0 +46	76L 0	0 +29	59L 0	-7 +22	52L 7T	-24 +5	35L 24T	-37 -8	22L 37T	-51 -22	8L 51T	-70 -41	11T 70T

"L" = Loose / "T" = Tight

UNIT CONVERSIONS

Multiply	By	To Obtain
Celsius Temperature [°C]	$9/5(^{\circ}\text{C})+32$	Fahrenheit Temperature [°F]
Centimeter [cm]	0.3937	Inch [in]
Centimeter [cm]	10	Millimeter [mm]
Dyne	0.0001	Newton [N]
Dyne Centimeter	10^{-7}	Newton-Meter [N-m]
Fahrenheit Temperature [°F]	$5/9(^{\circ}\text{F})-32$	Celsius Temperature [°C]
Foot [ft]	30.48	Centimeter [cm]
Foot [ft]	0.3048	Meter [m]
Gallon, US Liquid [gal]	3.7854	Liter [l]
Gram [g]	0.0353	Ounce [oz]
Horsepower [hp]	0.7457	Kilowatt [kW]
Horsepower [hp]	7456999.00	Watt [W]
Inch [in]	2.54	Centimeter [cm]
Inch [in]	0.0254	Meter [m]
Inch [in]	25.4	Millimeter [mm]
Joule [J]	0.009478	British Thermal Unit [Btu]
Kilogram [kg]	2.20	Pound [lb]

Multiply	By	To Obtain
Kilogram-Force [kgf]	9.81	Newton [N]
Kilometer [km]	0.6214	Mile [mi]
Liter [l]	0.3531	Cubic Foot [ft³]
Liter [l]	0.001	Cubic Meter [m³]
Liter [l]	0.2642	Gallon, US Liquid [gal]
Meter [m]	39.37	Inch [in]
Meter [m]	3.28	Foot [ft]
Meter [m]	1.0936	Yard [yd]
Micron [μm]	1000.00	Millimeter [mm]
Micron [μm]	10^6	Meter [m]
Mile [mi]	1.6093	Kilometer [km]
Millimeter [mm]	0.03937	Inch [in]
Millimeter [mm]	0.003281	Foot [ft]
Newton [N]	0.2248	Pound-Force [lbf]
Ounce [oz]	28.3495	Gram [g]
Pound [lb]	0.4536	Kilogram [kg]
Pound-Force [lbf]	4.448	Newton [N]
Yard [yd]	0.9144	Meter [m]



BALL BEARINGS CATALOG

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