



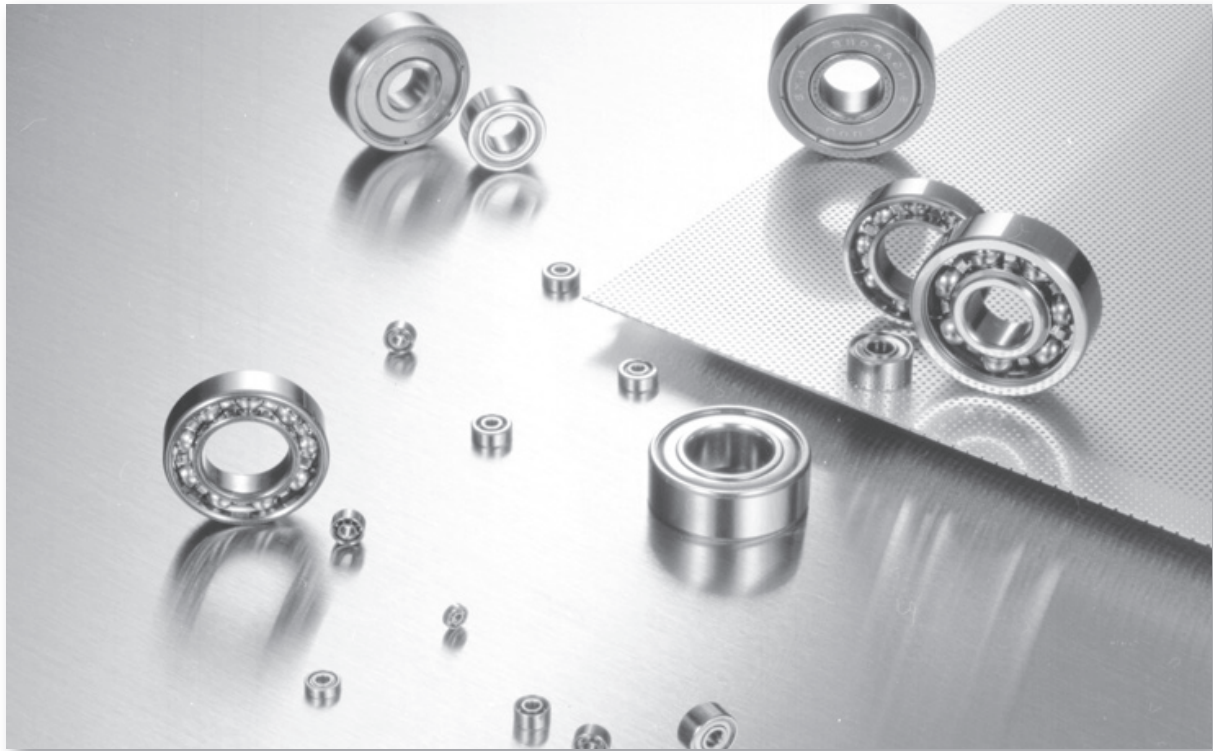
Inch Series Bearings

Standard inch series radial bearings carry moderate radial and thrust loads at low operating torque and provide high performance within small envelope designs.

A1 miniature and instrument bearings of both the metric and inch configurations meet the tolerances of ABMA Standard 20 for ABEC 1 metric series bearings.

Stainless steel or chrome steel bearings are available with crown or ribbon type metallic cages. Open or shielded bearings may be flanged or unflanged. Various types of seals may be specified depending upon the anticipated environment to which the bearings will be exposed. (See Engineering Section for seal information)

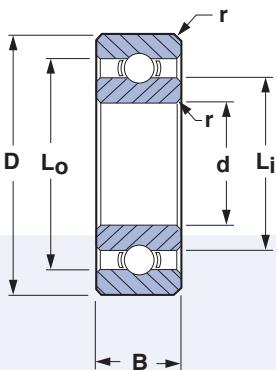
Radial open bearings	2.2
Bore sizes: .0400"-.7500"	
Radial shielded bearings	2.3
Bore sizes: .0469"-.7500"	
Radial flanged open bearings	2.4
Bore sizes: .0400"-.3750"	
Radial flanged shielded bearings	2.5
Bore sizes: .0469"-.3750"	
Extended inner ring radial open	2.6
bearings, flanged, unflanged	
Bore sizes: .0400"-.3125"	
Extended inner ring radial	2.7
shielded bearings, flanged, unflanged	
Bore sizes: .0469"-.3125"	
Superior Quality Worldwide	2.8



Radial Open Bearings



BORE d	O.D. D	WIDTH B	BASIC NUMBER*	REFERENCE DIAMETER		FILLET RADIUS r	LOAD RATINGS	
				L _i	L _o		N	
							DYN. C _r	STATIC C _{or}
.0400	.1250	.0469	DDRI-2	.065	.101	.003	106	28
.0469	.1562	.0625	DDRI-2 1/2	.081	.124	.003	158	44
.0550	.1875	.0781	DDRI-3	.093	.169	.003	264	71
.0781	.2500	.0937	DDRI-4	.122	.193	.003	330	99
.0937	.1875	.0625	DDRI-3332	.118	.163	.003	187	59
.0937	.3125	.1094	DDRI-5	.173	.271	.003	563	183
.1250	.2500	.0937	DDRI-418	.161	.217	.003	283	97
.1250	.3125	.1094	DDRI-518	.173	.271	.003	563	183
.1250	.3750	.1094	DDRI-618	.173	.271	.004	563	183
.1250	.3750	.1562	DDR-2	.200	.301	.012	641	226
.1562	.3125	.1094	DDRI-5532	.221	.279	.003	391	142
.1875	.3125	.1094	DDRI-5632	.221	.279	.003	391	142
.1875	.3750	.1250	DDRI-6632	.235	.343	.003	712	271
.1875	.5000	.1562	DDR-3	.276	.413	.012	1306	487
.2500	.3750	.1250	DDRI-614	.285	.340	.003	417	205
.2500	.5000	.1250	DDRI-814	.330	.432	.006	828	374
.2500	.6250	.1960	DDR-4	.323	.513	.012	1470	599
.2500	.7500	.2188	DDRI-1214	.386	.598	.012	2411	912
.3125	.5000	.1562	DDRI-8516	.362	.450	.006	878	419
.3750	.6250	.1562	DDRI-1038	.458	.543	.010	906	477
.3750	.8750	.2188	DDRI-1438	.520	.741	.012	3297	1368
.5000	.7500	.1562	DDRI-1212	.587	.672	.010	1051	662
.6250	.8750	.1562	DDRI-1458	.713	.798	.010	1092	742
.7500	1.0000	.1562	DDRI-1634	.837	.922	.010	1204	895



NOTES:

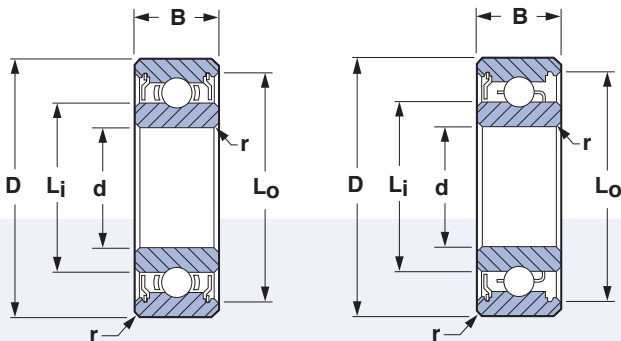
1. Inch to metric conversion - see Engineering Section.
2. Basic numbers shown above include code "DD" for NMB developed 400 series Martensitic stainless steel. If chrome steel is desired, delete "DD".
3. ABEC 1, 3, 5 and 7 tolerances apply.
4. r = Maximum shaft or housing fillet radius that bearing corners will clear.

* "DD" is a trademark of NMB.

Radial Shielded Bearings



BORE d	O.D. D	WIDTH B		*BASIC NUMBER	REFERENCE DIAMETER		FILLET RADIUS r	LOAD RATINGS	
		B			L _i	L _o		N	
		1 SHIELD	2 SHIELDS					DYN. C _r	STATIC C _{or}
.0469	.1562	.0937	.0937	DDRI-2 1/2	.081	.135	.003	158	44
.0550	.1875	.0937	.1094	DDRI-3	.093	.169	.003	264	71
.0781	.2500	.1094	.1406	DDRI-4	.122	.206	.003	330	99
.0937	.1875	.0937	.0937	DDRI-3332	.118	.169	.003	187	59
.0937	.3125	.1094	.1406	DDRI-5	.173	.283	.003	563	183
.1250	.2500	.0937	.1094	DDRI-418	.161	.230	.003	285	97
.1250	.3125	.1094	.1406	DDRI-518	.173	.283	.003	563	183
.1250	.3750	.1094	.1406	DDRI-618	.173	.283	.004	563	183
.1250	.3750	.1562	.1562	DDR-2	.200	.322	.012	641	226
.1562	.3125	.1094	.1250	DDRI-5532	.221	.288	.003	391	142
.1875	.3125	.1094	.1250	DDRI-5632	.221	.288	.003	391	142
.1875	.3750	.1250	.1250	DDRI-6632	.235	.343	.003	712	271
.1875	.5000	.1960	.1960	DDR-3	.276	.433	.012	1306	487
.2500	.3750	.1250	.1250	DDRI-614	.285	.350	.003	417	205
.2500	.5000	.1250	.1875	DDRI-814	.330	.455	.006	828	374
.2500	.6250	.1960	.1960	DDR-4	.323	.513	.012	1470	599
.2500	.7500	.2812	.2812	DDRI-1214	.340	.641	.012	2411	912
.3125	.5000	.1562	.1562	DDRI-8516	.362	.463	.005	878	419
.3750	.6250	.1562	.1562	DDRI-1038	.458	.543	.010	906	477
.3750	.8750	.2812	.2812	DDRI-1438	.474	.783	.012	3297	1368
.5000	.7500	.1562	.1562	DDRI-1212	.587	.689	.010	1051	662
.6250	.8750	.1562	.1562	DDRI-1458	.713	.815	.010	1092	742
.7500	1.0000	.1562	.1562	DDRI-1634	.837	.939	.010	1204	895



NOTES:

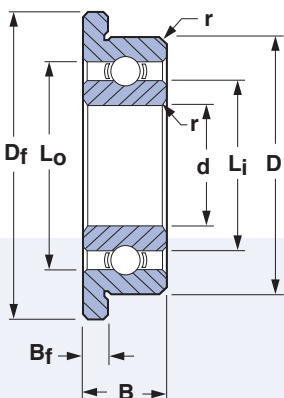
1. Inch to metric conversion - see Engineering Section.
2. Basic numbers shown above include code "DD" for NMB developed 400 series Martensitic stainless steel. If chrome steel is desired, delete "DD".
3. ABEC 1, 3, 5 and 7 tolerances apply.
4. r = Maximum shaft or housing fillet radius that bearing corners will clear.

* "DD" is a trademark of NMB.

Radial Flanged Open Bearings



BORE d	O.D. D	WIDTH B	*BASIC NUMBER	FLANGE DIA. D _f	FLANGE WIDTH B _f	REFERENCE DIAMETER		FILLET RADIUS r	LOAD RATINGS	
						L _i	L _o		N	
									DYN. C _r	STATIC C _{or}
.0400	.1250	.0469	DDRIF-2	.171	.013	.065	.101	.003	106	28
.0469	.1562	.0625	DDRIF-2 1/2	.203	.013	.081	.124	.003	158	44
.0550	.1875	.0781	DDRIF-3	.234	.023	.093	.169	.003	264	71
.0781	.2500	.0937	DDRIF-4	.296	.023	.122	.193	.003	330	99
.0937	.1875	.0625	DDRIF-3332	.234	.018	.118	.163	.003	187	59
.0937	.3125	.1094	DDRIF-5	.359	.023	.173	.270	.003	563	183
.1250	.2500	.0937	DDRIF-418	.296	.023	.161	.217	.003	285	97
.1250	.3125	.1094	DDRIF-518	.359	.023	.173	.271	.003	563	183
.1250	.3750	.1094	DDRIF-618	.422	.023	.173	.271	.004	563	183
.1250	.3750	.1562	DDRF-2	.440	.030	.200	.301	.012	641	226
.1562	.3125	.1094	DDRIF-5532	.359	.023	.221	.279	.003	391	142
.1875	.3125	.1094	DDRIF-5632	.359	.023	.221	.279	.003	391	142
.1875	.3750	.1250	DDRIF-6632	.422	.023	.235	.343	.003	712	271
.1875	.5000	.1562	DDRF-3	.565	.042	.276	.413	.012	1306	487
.2500	.3750	.1250	DDRIF-614	.422	.023	.285	.340	.003	417	205
.2500	.5000	.1250	DDRIF-814	.547	.023	.330	.432	.006	828	374
.2500	.6250	.1960	DDRF-4	.690	.042	.323	.513	.012	1470	599
.3125	.5000	.1562	DDRIF-8516	.547	.031	.362	.450	.005	878	419
.3750	.8750	.2812	DDRIF-1438	.969	.062	.520	.741	.012	3297	1368



NOTES:

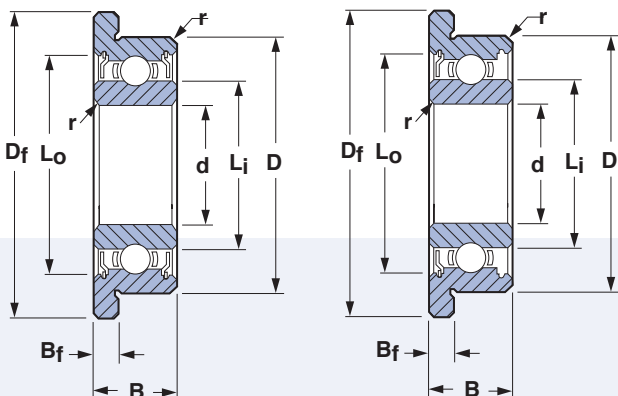
1. Inch to metric conversion - see Engineering Section.
2. Basic numbers shown above include code "DD" for NMB developed 400 series Martensitic stainless steel. If chrome steel is desired, delete "DD".
3. ABEC 1, 3, 5 and 7 tolerances apply.
4. r = Maximum shaft or housing fillet radius that bearing corners will clear.

* "DD" is a trademark of NMB.

Radial Flanged Shielded Bearings



BORE d	O.D. D	SHIELDED WIDTH B 1 OR 2 SHIELDS	*BASIC NUMBER	FLANGE DIA. D _f	FLANGE WIDTH B _f	REFERENCE DIAMETER		FILLET RADIUS r	LOAD RATINGS	
						L _i	L _o		N	
									DYN. C _r	STATIC C _{or}
.0469	.1562	.0937	DDRIF-2 1/2	.203	.031	.081	.135	.003	158	44
.0550	.1875	.1094	DDRIF-3	.234	.031	.093	.169	.003	264	71
.0781	.2500	.1406	DDRIF-4	.296	.031	.122	.206	.003	330	99
.0937	.1875	.0937	DDRIF-3332	.234	.031	.118	.168	.003	187	59
.0937	.3125	.1406	DDRIF-5	.359	.031	.173	.283	.003	563	183
.1250	.2500	.1094	DDRIF-418	.296	.031	.161	.230	.003	285	97
.1250	.3125	.1406	DDRIF-518	.359	.031	.173	.283	.003	563	183
.1250	.3750	.1406	DDRIF-618	.422	.031	.173	.283	.004	563	183
.1250	.3750	.1562	DDRF-2	.440	.030	.200	.322	.012	641	226
.1562	.3125	.1250	DDRIF-5532	.359	.036	.221	.288	.003	391	142
.1875	.3125	.1250	DDRIF-5632	.359	.036	.221	.288	.003	391	142
.1875	.3750	.1250	DDRIF-6632	.422	.031	.235	.343	.003	712	271
.1875	.5000	.1960	DDRF-3	.565	.042	.276	.435	.012	1306	487
.2500	.3750	.1250	DDRIF-614	.422	.036	.285	.348	.003	417	205
.2500	.5000	.1875	DDRIF-814	.547	.045	.330	.454	.006	828	374
.2500	.6250	.1960	DDRF-4	.690	.042	.323	.513	.012	1470	599
.3125	.5000	.1562	DDRIF-8516	.547	.031	.362	.463	.006	878	417
.3750	.8750	.2812	DDRIF-1438	.969	.062	.474	.783	.012	3297	1368



NOTES:

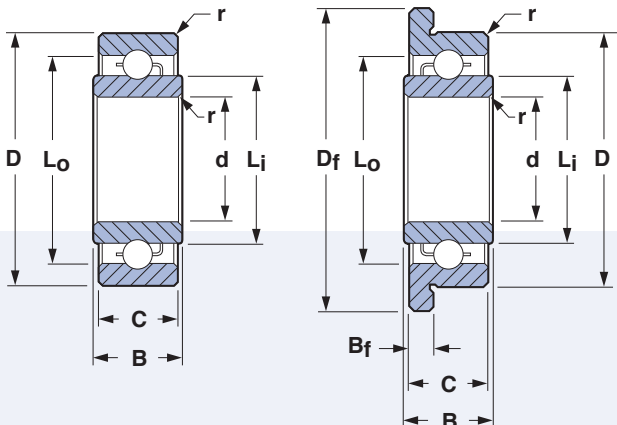
1. Inch to metric conversion - see Engineering Section.
2. Basic numbers shown above include code "DD" for NMB developed 400 series Martensitic stainless steel. If chrome steel is desired, delete "DD".
3. ABEC 1, 3, 5 and 7 tolerances apply.
4. r = Maximum shaft or housing fillet radius that bearing corners will clear.

* "DD" is a trademark of NMB.



Extended Inner Ring Radial Open Bearings Flanged and Unflanged

BORE d	O.D. D	WIDTH 1 OR 2 SHIELDS		*BASIC NUMBER†	FLANGE DIA. D _f	FLANGE WIDTH B _f	REFERENCE DIAMETER		FILLET RADIUS r	LOAD RATINGS	
		B	C				L _i	L _o		N	
										DYN. C _r	STATIC C _{or}
.0400	.1250	.0781	.0469	DDRI-2	.171	.013	.065	.101	.003	106	28
.0469	.1562	.0937	.0625	DDRI-2½	.203	.013	.081	.124	.003	158	44
.0550	.1875	.1094	.0781	DDRI-3	.234	.023	.093	.169	.003	264	71
.0781	.2500	.1250	.0937	DDRI-4	.296	.023	.122	.193	.003	330	99
.0937	.1875	.0937	.0625	DDRI-3332	.234	.018	.118	.163	.003	187	59
.0937	.3125	.1406	.1094	DDRI-5	.359	.023	.173	.270	.003	563	183
.1250	.2500	.1250	.0937	DDRI-418	.296	.023	.161	.217	.003	285	97
.1250	.3125	.1406	.1094	DDRI-518	.359	.023	.173	.271	.003	563	183
.1250	.3750	.1406	.1094	DDRI-618	.422	.023	.173	.271	.005	563	183
.1250	.3750	.1875	.1562	DDR-2	.440	.030	.200	.301	.012	641	226
.1562	.3125	.1406	.1094	DDRI-5532	.359	.023	.221	.279	.003	391	142
.1875	.3125	.1406	.1094	DDRI-5632	.359	.023	.221	.279	.003	391	142
.1875	.3750	.1562	.1250	DDRI-6632	.422	.023	.235	.343	.003	712	271
.2500	.3750	.1562	.1250	DDRI-614	.422	.023	.285	.340	.003	417	205
.2500	.5000	.1562	.1250	DDRI-814	.547	.023	.330	.432	.005	828	374
.3125	.5000	.1875	.1562	DDRI-8516	.547	.031	.362	.450	.005	878	419



NOTES:

1. Inch to metric conversion - see Engineering Section.
2. Basic numbers shown above include code "DD" for NMB developed 400 series Martensitic stainless steel. If chrome steel is desired, delete "DD".
3. ABEC 1, 3, 5 and 7 tolerances apply.
4. r = Maximum shaft or housing fillet radius that bearing corners will clear.

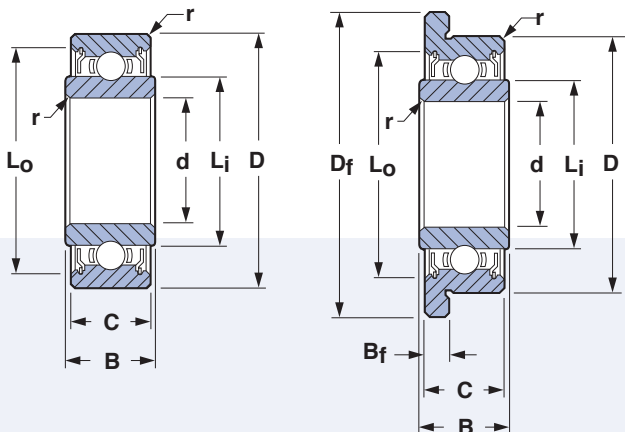
† For flanged bearings substitute prefix DDRIF or DDRF

* "DD" is a trademark of NMB.

Extended Inner Ring Radial Shielded Bearings Flanged and Unflanged



BORE d D	O.D. D	WIDTH 1 OR 2 SHIELDS		*BASIC NUMBER†	FLANGE DIA. D _f	FLANGE WIDTH B _f	REFERENCE DIAMETER		FILLET RADIUS r	LOAD RATINGS N	
		B	C				L _i	L _o		DYN. C _r	STATIC C _{or}
.0469	.1562	.1250	.0937	DDRI-2 1/2	.203	.031	.081	.135	.003	158	44
.0550	.1875	.1406	.1094	DDRI-3	.234	.031	.093	.169	.003	264	71
.0781	.2500	.1719	.1406	DDRI-4	.296	.031	.122	.206	.003	330	99
.0937	.1875	.1250	.0937	DDRI-3332	.234	.031	.118	.168	.003	187	59
.0937	.3125	.1719	.1406	DDRI-5	.359	.031	.173	.283	.003	563	183
.1250	.2500	.1406	.1094	DDRI-418	.296	.031	.161	.230	.003	285	97
.1250	.3125	.1719	.1406	DDRI-518	.359	.031	.173	.283	.003	563	183
.1250	.3750	.1719	.1406	DDRI-618	.422	.031	.173	.283	.004	563	183
.1250	.3750	.1875	.1562	DDR-2	.440	.030	.200	.322	.012	641	226
.1562	.3125	.1562	.1250	DDRI-5532	.359	.036	.221	.288	.003	391	142
.1875	.3125	.1562	.1250	DDRI-5632	.359	.036	.221	.288	.003	391	142
.1875	.3750	.1562	.1250	DDRI-6632	.422	.031	.235	.343	.003	712	271
.1875	.5000	.2272	.1960	DDR-3	.565	.042	.276	.435	.012	1306	487
.2500	.3750	.1562	.1250	DDRI-614	.422	.036	.285	.348	.003	417	205
.2500	.5000	.2188	.1875	DDRI-814	.547	.045	.330	.454	.005	828	374
.2500	.6250	.2260	.1960	DDR-4	.690	.042	.323	.513	.012	1470	599
.3125	.5000	.1875	.1562	DDRI-8516	.547	.031	.362	.463	.005	878	419



NOTES:

1. Inch to metric conversion - see Engineering Section.
2. Basic numbers shown above include code "DD" for NMB developed 400 series Martensitic stainless steel. If chrome steel is desired, delete "DD".
3. ABEC 1, 3, 5 and 7 tolerances apply.
4. r = Maximum shaft or housing fillet radius that bearing corners will clear.

† For flanged bearings substitute prefix DDRIF or DDRF

* "DD" is a trademark of NMB.

Consistently Superior Quality Worldwide

NMB currently has 10 bearing manufacturing facilities worldwide, all of which conduct vertically integrated production, which encompasses all processes from machining to final assembly and testing. These plants also utilize mass-production technologies and production lines developed at Minebea's parent plants in Japan. As a consequence, NMB is able to guarantee products of consistently superior quality, no matter where manufactured.

