

BALL BEARINGS



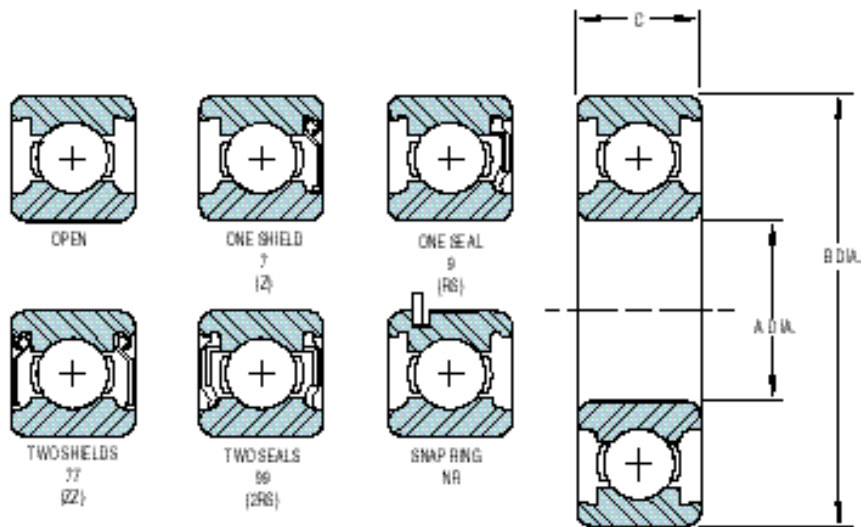
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R LIGHT INCH SERIES

ABEC-1



BASIC BEARING NUMBER	BORE A		OUTSIDE DIAMETER B		WIDTH C*		MAX FILLET RADIUS	BASIC STATIC LOAD (lbs.)	BASIC DYNAMIC LOAD ¹ (lbs.)	WEIGHT ² (lbs.)	LIMITING SPEED ² (rpm)
	inch	tol. +.0000	inch	tol. +.0000	Open type	Shield or Seal					
R2	.1250	-.0003	.3750	-.0004	.1562	.1562	.012	51	144	.003	91000
R3	.1875	-.0003	.5000	-.0004	.1562	.1960	.012	109	294	.005	66000
R4	.2500	-.0003	.6250	-.0004	.1960	.1960	.012	189	486	.010	52000
R4A	.2500	-.0003	.7500	-.0004	.2188	.2812	.016	208	545	.017	45000
R6	.3750	-.0003	.8750	-.0004	.2188	.2812	.016	317	750	.029	36000
R8	.5000	-.0003	1.1250	-.0004	.2500	.3125	.016	538	1151	.040	28000
R10	.6250	-.0003	1.3750	-.0005	.2812	.3438	.031	653	1260	.067	23000
R12	.7500	-.0004	1.6250	-.0005	.3125	.4375	.031	993	1783	.100	19000
R14	.8750	-.0004	1.8750	-.0005	.3750	.5000	.031	1171	2112	.159	16000
R16	1.0000	-.0004	2.0000	-.0005	.3750	.5000	.031	1338	2259	.178	15000
R18	1.1250	-.0004	2.1250	-.0005	.3750	.5000	.031	1340	2410	.194	14000
R20	1.2500	-.0005	2.2500	-.0005	.3750	.5000	.031	1669	2517	.200	13000
90500-88 (99502H)	.6250	-.0003	1.3750	-.0005	.4330	.4330	.025	836	1717	.080	23000
90502-88 (99502HNR)	.6250	-.0003	1.3750	-.0005	.4330	.4330	.025	836	1717	.080	23000

* WIDTH TOLERANCE +.000/-.005

¹ Dynamic Loads are based on 1 million revolutions.

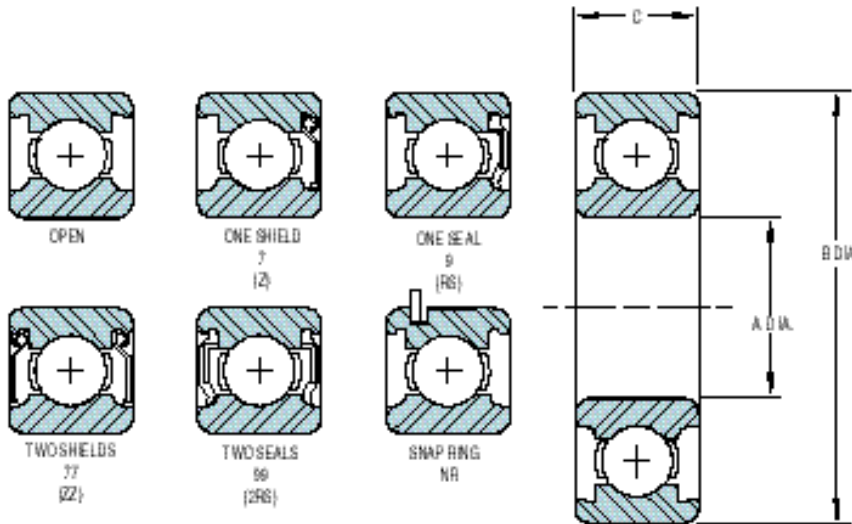
² Weight and Limiting Speed are based on an open, oiled bearing.

PART NUMBER NOMENCLATURE EXAMPLE:

R2 - Open
77R2 - 2 Shields
99R2 - 2 Seals

44 High Street, West Nyack, NY 10994
Tel (845) 358-6000 ■ Fax (845) 358-7415
www.generalbearing.com

THE GENERAL
GENERAL BEARING CORPORATION
A QS-9000/ISO-9001 Certified Company



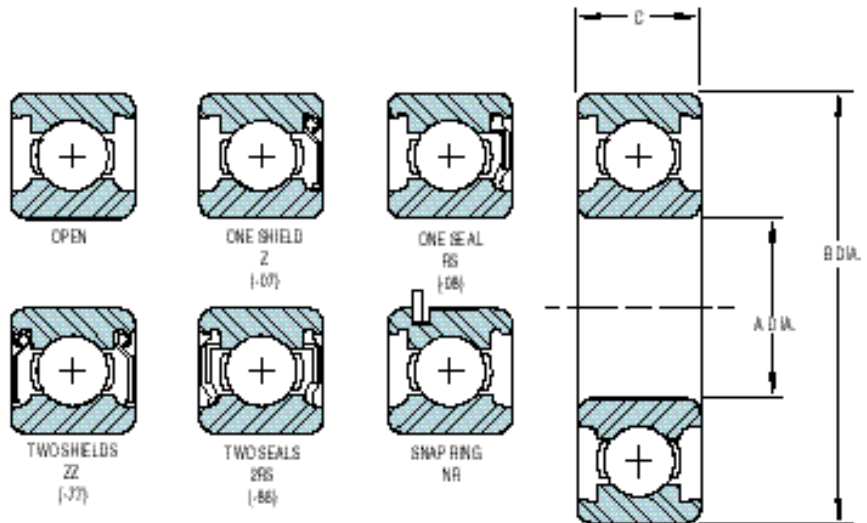
BASIC BEARING NUMBER	BORE A		OUTSIDE DIAMETER B		WIDTH C*	MAX FILLET RADIUS	BASIC STATIC LOAD (lbs.)	BASIC DYNAMIC LOAD ¹ (lbs.)	WEIGHT ² (lbs.)	LIMITING SPEED ² (rpm)
	mm inch	tol. +0.000	mm inch	tol. +0.000						
34	4 .1575	-0.008 -0.003	16 .6299	-0.010 -0.004	5 .1969	0.3 .012	153	423	.011	58000
35	5 .1969	-0.008 -0.003	19 .7480	-0.010 -0.004	6 .2362	0.3 .012	197	496	.018	48000
36	6 .2362	-0.008 -0.003	19 .7480	-0.010 -0.004	6 .2362	0.3 .012	201	500	.020	46000
37	7 .2756	-0.008 -0.003	22 .8661	-0.010 -0.004	7 .2756	0.3 .012	303	735	.030	40000
38	8 .3150	-0.008 -0.003	22 .8661	-0.010 -0.004	7 .2756	0.3 .012	307	742	.030	38000
39	9 .3543	-0.008 -0.003	26 1.0236	-0.010 -0.004	8 .3150	0.6 .025	437	1023	.040	33000

* WIDTH TOLERANCE: +.000/-.005 (+0.000/-0.127mm).
¹ Dynamic Loads are based on 1 million revolutions.
² Weight and Limiting Speed are based on an open, oiled bearing.

PART NUMBER NOMENCLATURE EXAMPLE:
 38 - Open
 77038 - 2 Shields
 99038 - 2 Seals

6000 EXTRA LIGHT SERIES

ABEC-1



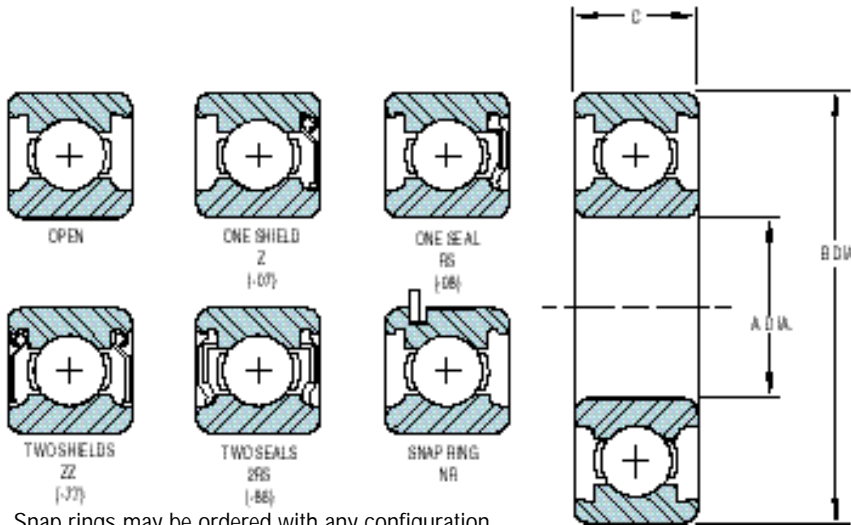
BASIC BEARING NUMBER	BORE A		OUTSIDE DIAMETER B		WIDTH C*	MAX FILLET RADIUS	BASIC STATIC LOAD (lbs.)	BASIC DYNAMIC LOAD ¹ (lbs.)	WEIGHT ² (lbs.)	LIMITING SPEED ² (rpm)
	mm	tol. inch	mm	tol. inch						
6000	10	-0.008	26	-0.010	8	0.3	443	1030	.040	32000
	.3937	-0.003	1.0236	-0.004	.3150	.012				
6001	12	-0.008	28	-0.010	8	0.3	534	1148	.040	28000
	.4724	-0.003	1.1024	-0.004	.3150	.012				
6002	15	-0.008	32	-0.013	9	0.3	639	1258	.060	24000
	.5906	-0.003	1.2598	-0.005	.3543	.012				
6003	17	-0.008	35	-0.013	10	0.3	731	1350	.090	22000
	.6693	-0.003	1.3780	-0.005	.3937	.012				
6004	20	-0.010	42	-0.013	12	0.6	1004	1951	.160	18000
	.7874	-0.004	1.6535	-0.005	.4724	.024				
6005	25	-0.010	47	-0.013	12	0.6	1315	2264	.170	16000
	.9843	-0.004	1.8504	-0.005	.4724	.024				
6006	30	-0.010	55	-0.013	13	1.0	1859	2977	.260	13000
	1.1811	-0.004	2.1654	-0.005	.5118	.039				
6007	35	-0.013	62	-0.013	14	1.0	2309	3593	.320	12000
	1.3780	-0.005	2.4409	-0.005	.5512	.039				
6008	40	-0.013	68	-0.013	15	1.0	2593	3775	.430	10000
	1.5748	-0.005	2.6672	-0.005	.5906	.039				
6009	45	-0.013	75	-0.013	16	1.0	3406	4721	.550	9000
	1.7717	-0.005	2.9528	-0.005	.6299	.039				
6010	50	-0.013	80	-0.013	16	1.0	3721	4908	.600	9000
	1.9685	-0.005	3.1496	-0.005	.6299	.039				
6011	55	-0.015	90	-0.015	18	1.0	4776	6360	.860	8000
	2.1654	-0.006	3.5433	-0.006	.7087	.039				
6012	60	-0.015	95	-0.015	18	1.0	5205	6622	.920	7000
	2.3622	-0.006	3.7402	-0.006	.7087	.039				
6013	65	-0.015	100	-0.015	18	1.0	5653	6870	.980	7000
	2.5591	-0.006	3.9370	-0.006	.7087	.039				
6014	70	-0.015	110	-0.015	20	1.0	6938	8560	1.330	6000
	2.7559	-0.006	4.3307	-0.006	.7874	.039				
6015	75	-0.015	115	-0.015	20	1.0	7522	8892	1.410	6000
	2.9528	-0.006	4.5276	-0.006	.7874	.039				
6016	80	-0.015	125	-0.020	22	1.0	8919	10716	1.870	5000
	3.1496	-0.006	4.9213	-0.008	.8661	.039				
6017	85	-0.020	130	-0.020	22	1.0	9658	11141	1.960	5000
	3.3465	-0.008	5.1181	-0.008	.8661	.039				

* WIDTH TOLERANCE: Bore up to 1.9685 +.000/-0.005 (+0.000/-0.127mm); Bore 2.1654 up to 3.1496 +.000/-0.006 (+0.000/-0.152mm); Bore 3.3465 up to 4.7244 +.000/-0.008 (+0.000/-0.203mm).

¹ Dynamic Loads are based on 1 million revolutions.

² Weight and Limiting Speed are based on an open, oiled bearing.

PART NUMBER NOMENCLATURE EXAMPLE:
 6000 — Open
 6000 Z — 1 Shield
 6000 2RS — 2 Seals



Snap rings may be ordered with any configuration.

BASIC BEARING NUMBER	BORE A		OUTSIDE DIAMETER B		WIDTH C*	MAX FILLET RADIUS	BASIC STATIC LOAD ¹ (lbs.)	BASIC DYNAMIC LOAD ¹ (lbs.)	WEIGHT ² (lbs.)	LIMITING SPEED ² (rpm)
	mm inch	tol. +0.000	mm inch	tol. +0.000						
6200	10 .393	-0.008 -0.003	30 1.1811	-0.010 -0.004	9 .3543	0.6 .025	536	1150	.060	28000
6201	12 .4724	-0.008 -0.003	32 1.2598	-0.013 -0.005	10 .3937	0.6 .025	685	1531	.080	26000
6202	15 .5906	-0.008 -0.003	35 1.3780	-0.013 -0.005	11 .4331	0.6 .025	837	1718	.090	22000
6203	17 .6693	-0.008 -0.003	40 1.5748	-0.013 -0.005	12 .4724	0.6 .025	1076	2153	.140	20000
6204	20 .7874	-0.010 -0.004	47 1.8504	-0.013 -0.005	14 .5512	1.0 .040	1495	2888	.230	16000
6205	25 .9843	-0.010 -0.004	52 2.0472	-0.013 -0.005	15 .5906	1.0 .040	1771	3154	.280	15000
6206	30 1.1811	-0.010 -0.004	62 2.4409	-0.013 -0.005	16 .6299	1.0 .040	2543	4378	.430	12000
6207	35 1.3780	-0.013 -0.005	72 2.8346	-0.013 -0.005	17 .6693	1.0 .040	3439	5775	.640	10000
6208	40 1.5748	-0.013 -0.005	80 3.1496	-0.013 -0.005	18 .7087	1.0 .040	4023	6549	.830	9000
6209	45 1.7717	-0.013 -0.005	85 3.3465	-0.015 -0.006	19 .7480	1.0 .040	4566	7027	.940	9000
6210	50 1.9685	-0.013 -0.005	90 3.5433	-0.015 -0.006	20 .7874	1.0 .040	5209	7890	1.050	8000
6211	55 2.1654	-0.015 -0.006	100 3.9370	-0.015 -0.006	21 .8268	1.5 .060	6564	9758	1.400	7000
6212	60 2.3622	-0.015 -0.006	110 4.3307	-0.015 -0.006	22 .8661	1.5 .060	7438	10367	1.730	6000
6213	65 2.5591	-0.015 -0.006	120 4.7244	-0.015 -0.006	23 .9055	1.5 .060	8990	12870	2.180	6000
6214	70 2.7559	-0.015 -0.006	125 4.9213	-0.020 -0.008	24 .9449	1.5 .060	9888	13992	2.360	6000
6215	75 2.9528	-0.015 -0.006	130 5.1181	-0.020 -0.008	25 .9843	1.5 .059	11074	14887	2.600	5000
6216	80 3.1496	-0.015 -0.006	140 5.5118	-0.020 -0.008	26 1.0236	2.0 .079	11912	16347	3.090	5000
6217	85 3.3465	-0.020 -0.008	150 5.9055	-0.020 -0.008	28 1.1024	2.0 .079	16965	20393	3.950	5000
6218	90 3.5433	-0.020 -0.008	160 6.2992	-0.025 -0.010	30 1.1811	2.0 .079	16060	21592	4.740	4000
6219	95 3.7402	-0.020 -0.008	170 6.6929	-0.025 -0.010	32 1.2598	2.0 .079	18362	24455	5.780	4000
6220	100 3.9370	-0.020 -0.008	180 7.0866	-0.025 -0.010	34 1.3386	2.0 .079	20836	27476	6.920	4000

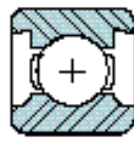
* WIDTH TOLERANCE: Bore up to 1.9685 +0.000/-0.005 (+0.000/-0.127mm); Bore 2.1654 up to 3.1496 +0.000/-0.006 (+0.000/-0.152mm); Bore 3.3465 up to 4.7244 +0.000/-0.008 (+0.000/-0.203mm).

¹ Dynamic Loads are based on 1 million revolutions.
² Weight and Limiting Speed are based on an open, oiled bearing.

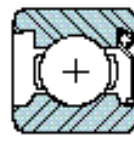
PART NUMBER NOMENCLATURE EXAMPLE:
 6200 — Open
 6200 Z — 1 Shield
 6200 2RS — 2 Seals

6300 MEDIUM SERIES

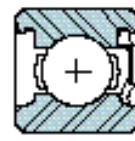
ABEC-1



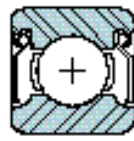
OPEN



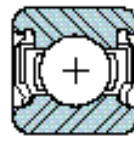
ONE SHIELD
Z
(-07)



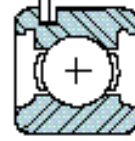
ONE SEAL
RS
(-08)



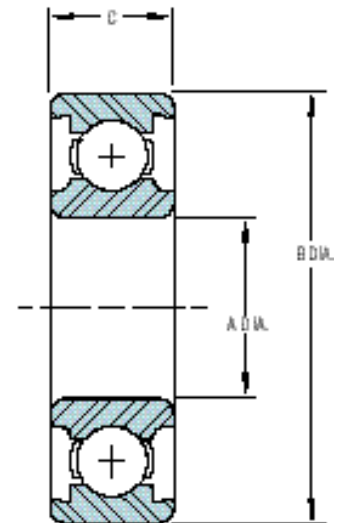
TWO SHIELDS
ZZ
(-07)



TWO SEALS
2RS
(-88)



SNAP RING
NR



Snap rings may be ordered with any configuration.

BASIC BEARING NUMBER	BORE A		OUTSIDE DIAMETER B		WIDTH C*	MAX FILLET RADIUS	BASIC STATIC LOAD (lbs.)	BASIC DYNAMIC LOAD ¹ (lbs.)	WEIGHT ² (lbs.)	LIMITING SPEED ² (rpm)
	mm inch	tol. +.0000	mm inch	tol. +.0000						
6300	10 .3937	-0.008 -0.003	35 1.3780	-0.013 -0.005	11 .4331	0.6 .025	774	1822	.117	25000
6301	12 .4724	-0.008 -0.003	37 1.4567	-0.013 -0.005	12 .4724	1.0 .040	941	2184	.132	23000
6302	15 .5906	-0.008 -0.003	42 1.6535	-0.013 -0.005	13 .5118	1.0 .040	1202	2548	.181	20000
6303	17 .6693	-0.008 -0.003	47 1.8504	-0.013 -0.005	14 .5512	1.0 .040	1468	3043	.254	18000
6304	20 .7874	-0.010 -0.004	52 2.0472	-0.013 -0.005	15 .5906	1.0 .040	1771	3586	.317	16000
6305	25 .9843	-0.010 -0.004	62 2.4409	-0.013 -0.005	17 .6693	1.0 .040	2586	5042	.511	13000
6306	30 1.1811	-0.010 -0.004	72 2.8346	-0.013 -0.005	19 .7480	1.0 .040	3372	5995	.763	11000
6307	35 1.3780	-0.013 -0.005	80 3.1496	-0.013 -0.005	21 .8268	1.5 .060	4304	7496	1.010	10000
6308	40 1.5748	-0.013 -0.005	90 3.5433	-0.015 -0.006	23 .9055	1.5 .060	5382	9161	1.400	9000
6309	45 1.7717	-0.013 -0.005	100 3.9370	-0.015 -0.006	25 .9843	1.5 .060	7190	11913	1.840	8000
6310	50 1.9685	-0.013 -0.005	110 4.3307	-0.015 -0.006	27 1.0630	2.0 .080	8583	13947	2.360	7000
6311	55 2.1654	-0.015 -0.006	120 4.7244	-0.015 -0.006	29 1.1417	2.0 .080	10019	16079	3.020	6000
6312	60 2.3622	-0.015 -0.006	130 5.1181	-0.020 -0.008	31 1.2205	2.0 .080	11653	18392	3.750	6000
6313	65 2.5591	-0.015 -0.006	140 5.5118	-0.020 -0.008	33 1.2992	2.0 .080	13411	20841	4.590	5000
6314	70 2.7559	-0.015 -0.006	150 5.9055	-0.020 -0.008	35 1.3780	2.0 .080	15291	23425	5.560	5000
6315	75 2.9528	-0.015 -0.006	160 6.2992	-0.025 -0.010	37 1.4567	2.0 .079	17298	25516	6.660	5000
6316	80 3.1496	-0.020 -0.008	170 6.6929	-0.025 -0.010	39 1.5354	2.0 .079	19441	27657	7.910	4000
6317	85 3.3465	-0.020 -0.008	180 7.0866	-0.025 -0.010	41 1.6141	2.5 .098	21708	29845	9.330	4000
6318	90 3.5433	-0.020 -0.008	190 7.4803	-0.031 -0.012	43 1.6929	2.5 .098	24100	32081	10.800	4000
6319	95 3.7402	-0.020 -0.008	200 7.8740	-0.031 -0.012	45 1.7717	2.5 .098	26616	34362	12.500	4000
6320	100 3.9370	-0.020 -0.008	215 8.4646	-0.031 -0.012	47 1.8504	2.5 .098	31553	38916	15.400	3000
6321	105 4.1339	-0.020 -0.008	225 8.8583	-0.031 -0.012	49 1.9291	2.5 .098	34405	41325	17.700	3000
6322	110 4.3307	-0.020 -0.008	240 9.4488	-0.031 -0.012	50 1.9685	2.5 .098	40074	46108	21.000	3000

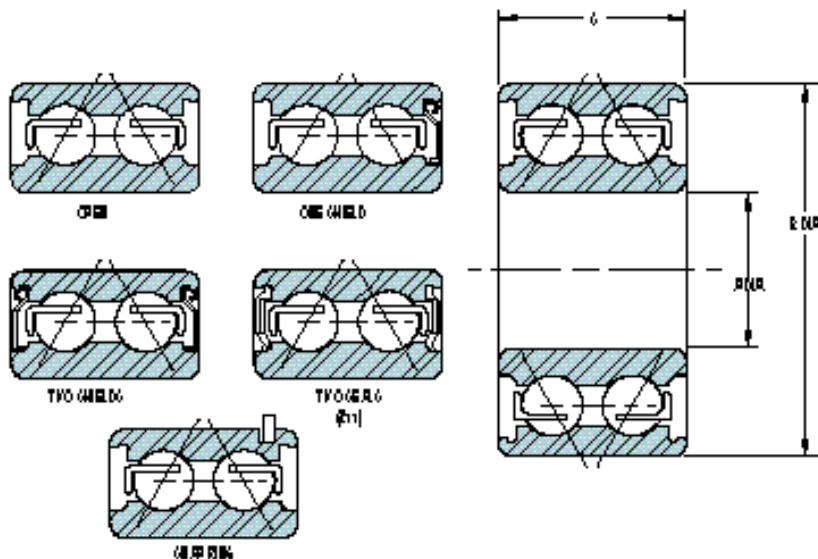
* WIDTH TOLERANCE: Bore up to 1.9685 +.000/-0.005 (+0.000/-0.127mm); Bore 2.1654 up to 3.1496 +.000/-0.006 (+0.000/-0.152mm); Bore 3.3465 up to 4.3307 +.000/-0.008 (+0.000/-0.203mm).

¹ Dynamic Loads are based on 1 million revolutions.

² Weight and Limiting Speed are based on an open, oiled bearing.

PARTNUMBER NOMENCLATURE EXAMPLE:
6300 — Open
6300 Z — 1 Shield
6300 2RS — 2 Seals

ABEC-1 5200 LIGHT SERIES DOUBLE ROW BALL BEARINGS



BASIC BEARING NUMBER				BORE A		OUTSIDE DIAMETER B		WIDTH C*	BASIC STATIC LOAD (lbs.)	BASIC DYNAMIC LOAD ¹ (lbs.)	WEIGHT ² (lbs.)	LIMITING SPEED ² (rpm)
OPEN	ONE SHIELD	TWO SHIELDS	OPEN SN. RING	mm inch	tol. +0.000	mm inch	tol. +0.000	mm inch				
5200	5500	55500	45200	10 .3937	-0.008 -0.003	30 1.1811	-0.010 -0.004	14.3 .5625	854	1562	.12	22000
5201	5501	55501	45201	12 .4724	-0.008 -0.003	32 1.2598	-0.013 -0.005	15.9 .6250	1138	2053	.14	20000
5202	5502	55502	45202	15 .5906	-0.008 -0.003	35 1.3780	-0.013 -0.005	15.9 .6250	1359	2258	.15	17000
5203	5503	55503	45203	17 .6693	-0.008 -0.003	40 1.5748	-0.013 -0.005	17.5 .6875	1775	2871	.22	15000
5204	5504	55504	45204	20 .7874	-0.010 -0.004	47 1.8504	-0.013 -0.005	20.6 .8125	2717	4282	.38	13000
5205	5505	55505	45205	25 .9843	-0.010 -0.004	52 2.0472	-0.013 -0.005	20.6 .8125	3204	4633	.41	11000
5206	5506	55506	45206	30 1.1811	-0.010 -0.004	62 2.4409	-0.013 -0.005	23.8 .9375	3965	5479	.69	9500
5207	5507	55507	45207	35 1.3780	-0.013 -0.005	72 2.8346	-0.013 -0.005	27.0 1.0625	5506	7413	1.06	8000
5208	5508	55508	45208	40 1.5748	-0.013 -0.005	80 3.1496	-0.013 -0.005	30.2 1.1875	7273	9603	1.44	7200
5209	5509	55509	45209	45 1.7717	-0.013 -0.005	85 3.3465	-0.015 -0.006	30.2 1.1875	7326	9007	1.56	6700
5210	5510	55510	45210	50 1.9685	-0.015 -0.006	90 3.5433	-0.015 -0.006	30.2 1.1875	8171	9507	1.69	6000
5211	5511	55511	45211	55 2.1654	-0.015 -0.006	100 3.9370	-0.015 -0.006	33.3 1.3125	10610	12140	2.33	5500
5212	5512	55512	45212	60 2.3622	-0.015 -0.006	110 4.3307	-0.015 -0.006	36.5 1.4375	14695	16683	3.11	5000

TWO SEALS WIDE WIDTH

Z995203	—	—	—	17 .6693	-0.008 -0.003	40 1.5748	-0.013 -0.005	20.6 .8125	1775	2871	.28	15000
Z995204	—	—	—	20 .7874	-0.010 -0.004	47 1.8504	-0.013 -0.005	23.8 .9375	2717	4282	.46	13000
Z995205	—	—	—	25 .9843	-0.010 -0.004	52 2.0472	-0.013 -0.005	23.8 .9375	3204	4633	.49	11000

* WIDTH TOLERANCE +.000/-0.005 (+0.000/-0.127mm).

¹ Dynamic Loads are based on 1 million revolutions.

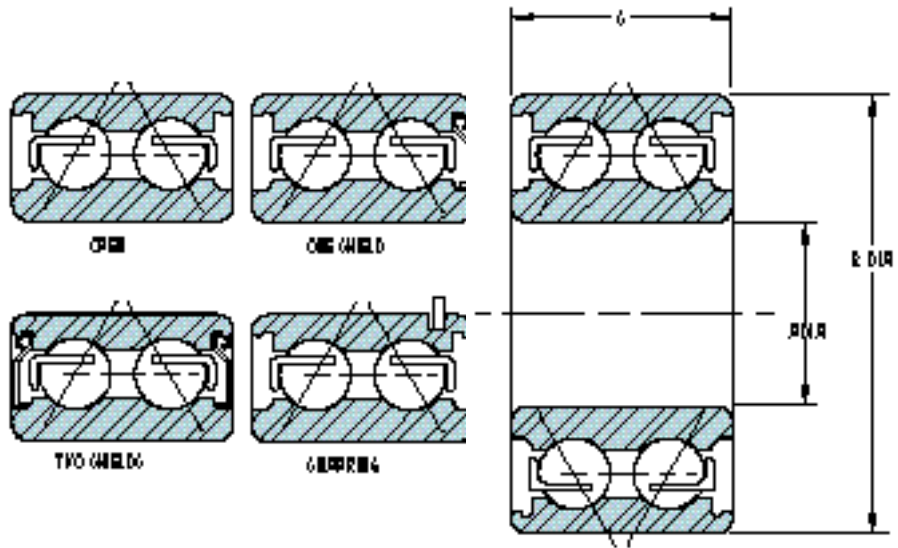
² Weight and Limiting Speed are based on an open, oiled bearing.

PART NUMBER NOMENCLATURE EXAMPLE:

45500 – One Shield, Snap Ring

455500 – Two Shields, Snap Ring

5300 MEDIUM SERIES DOUBLE ROW BALL BEARINGS ABEC-1



BASIC BEARING NUMBER				BORE A		OUTSIDE DIAMETER B		WIDTH C*	BASIC STATIC LOAD (lbs.)	BASIC DYNAMIC LOAD ¹ (lbs.)	WEIGHT ² (lbs.)	LIMITING SPEED ² (rpm)
OPEN	ONE SHIELD	TWO SHIELDS	OPEN SN. RING	mm inch	tol. +0.000	mm inch	tol. +0.000	mm inch				
5300	5600	55600	45300	10 .3937	-0.008 -0.003	35 1.3780	-0.013 -0.005	19.0 .7500	1314	2375	.22	20000
5301	5601	55601	45301	12 .4724	-0.008 -0.003	37 1.4567	-0.013 -0.005	19.0 .7500	1507	2674	.23	18000
5302	5602	55602	45302	15 .5906	-0.008 -0.003	42 1.6535	-0.013 -0.005	19.0 .7500	1869	3031	.38	16000
5303	5603	55603	45303	17 .6693	-0.008 -0.003	47 1.8504	-0.013 -0.005	22.2 .8750	2857	4507	.42	14000
5304	5604	55604	45304	20 .7874	-0.010 -0.004	52 2.0472	-0.013 -0.005	22.2 .8750	2780	4292	.52	11000
5305	5605	55605	45305	25 .9843	-0.010 -0.004	62 2.4409	-0.013 -0.005	25.4 1.0000	4010	5959	.82	10000
5306	5606	55606	45306	30 1.1811	-0.010 -0.004	72 2.8346	-0.013 -0.005	30.2 1.1875	6194	8893	1.32	9500
5307	5607	55607	45307	35 1.3780	-0.012 -0.005	80 3.1496	-0.013 -0.005	34.9 1.3750	7884	11131	1.77	8500
5308	5608	55608	45308	40 1.5748	-0.012 -0.005	90 3.5433	-0.015 -0.006	36.5 1.4375	9896	13603	2.38	7500
5309	5609	55609	45309	45 1.7717	-0.012 -0.005	100 3.9370	-0.015 -0.006	39.7 1.5625	12129	16294	3.25	6700
5310	5610	55610	45310	50 1.9685	-0.012 -0.005	110 4.3307	-0.015 -0.006	44.4 1.7500	14036	18392	4.25	6000

* WIDTH TOLERANCE +.000/-.005 (+0.000/-0.127mm).

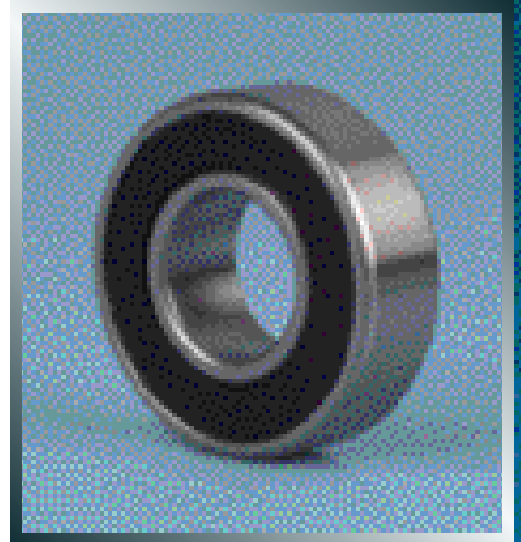
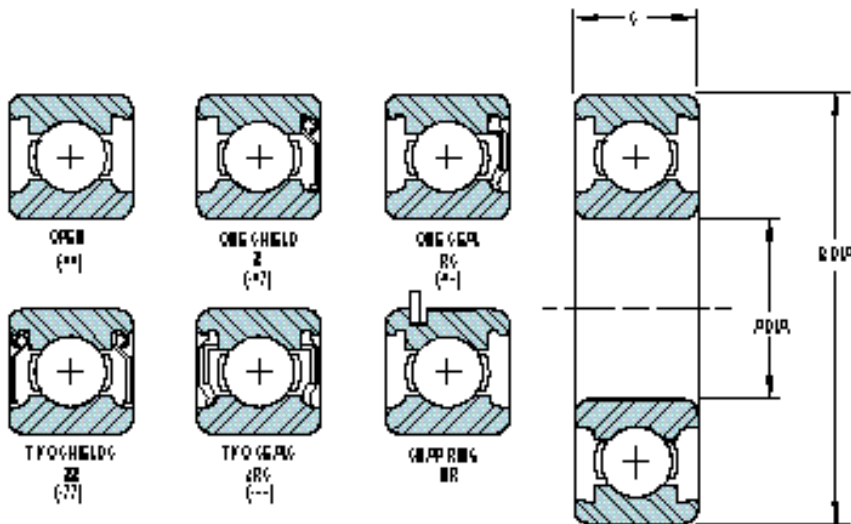
¹ Dynamic Loads are based on 1 million revolutions.

² Weight and Limiting Speed are based on an open, oiled bearing.

PART NUMBER NOMENCLATURE EXAMPLE:

45600 – One Shield, Snap Ring
455600 – Two Shields, Snap Ring

20000 EXTRA LIGHT INCH SERIES



This extra light inch series is suitable for the majority of ABEC-1 bearing applications. Ground raceways are 52100 chrome steel material with steel retainers. Maximum recommended speed is 5000 RPM. Bearings are available open, shielded or sealed and are factory lubricated with grease.

BASIC BEARING NUMBER	BORE A +.0000 -.0005	OUTSIDE DIAMETER B		WIDTH C +.000 -.005	MAX FILLET RADIUS	BASIC STATIC LOAD (lbs.)	BASIC DYNAMIC LOAD ¹ (lbs.)	WEIGHT ² (lbs.)
		inch	tol. +.0000					
21103	.1875	.6875	-.0005	†.250/.312	.012	201	500	.018
21104	.2500	.6875	-.0005	†.250/.312	.012	201	500	.018
21405	.3125	.8750	-.0005	†.281/.344	.016	318	751	.035
* 21406	.3750	.8750	-.0005	†.281/.344	.016	318	751	.035
21505	.3125	.9062	-.0005	.312	.016	291	607	.035
21506	.3750	.9062	-.0005	.312	.016	291	607	.030
21507	.4375	.9062	-.0005	.312	.016	291	607	.030
21806	.3750	1.1250	-.0005	.375	.016	538	1151	.065
21807	.4375	1.1250	-.0005	.375	.016	538	1151	.060
* 21808	.5000	1.1250	-.0005	.375	.016	538	1151	.055
22207	.4375	1.3750	-.0005	.437	.031	746	1526	.105
* 22208	.5000	1.3750	-.0005	.437	.031	746	1526	.110
22209	.5625	1.3750	-.0005	.437	.031	746	1526	.110
* 22210	.6250	1.3750	-.0005	.437	.031	746	1526	.080
22610	.6250	1.6250	-.0005	.500	.031	1010	1951	.175
22612	.7500	1.6250	-.0005	.500	.031	1010	1951	.160
22810	.6250	1.7500	-.0005	.500	.031	1010	1951	.220
22812	.7500	1.7500	-.0005	.500	.031	1010	1951	.205
23212	.7500	2.0000	-.0006	.562	.031	1565	2914	.280
23214	.8750	2.0000	-.0006	.562	.031	1565	2914	.255
* 23216	1.0000	2.0000	-.0006	.562	.031	1565	2914	.275
24018	1.1250	2.5000	-.0006	.625	.035	2195	3751	.460
24020	1.2500	2.5000	-.0006	.625	.035	2195	3751	.445
24120	1.2500	2.5625	-.0006	.687	.035	2616	4386	.550
24121	1.3125	2.5625	-.0006	.687	.035	2616	4386	.450

†NOTE: When two widths are listed, the first dimension applies for open or shielded bearings. The second dimension applies for sealed bearings.

*Also available: Seals with snap rings – add prefix "S" (Eg. S21406-88)

¹ Dynamic Loads are based on 1 million revolutions.

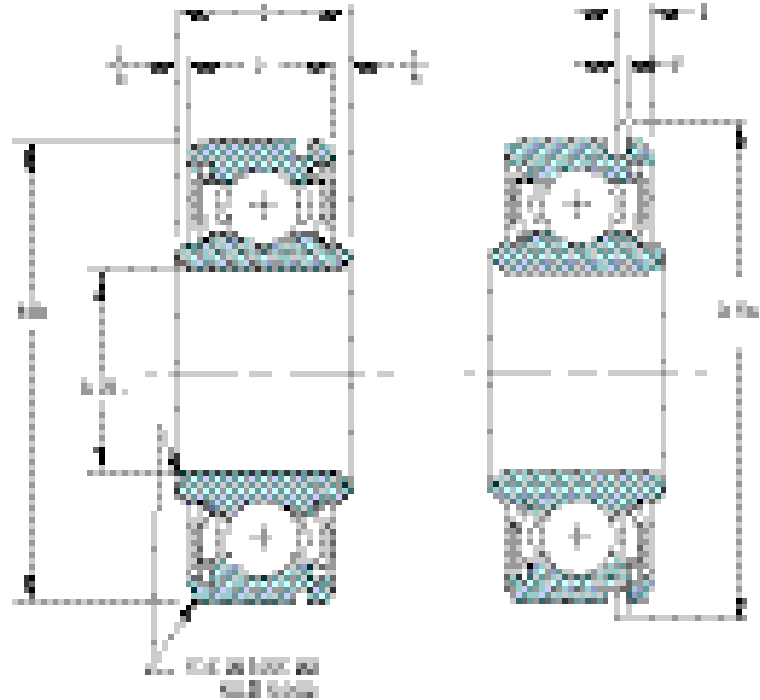
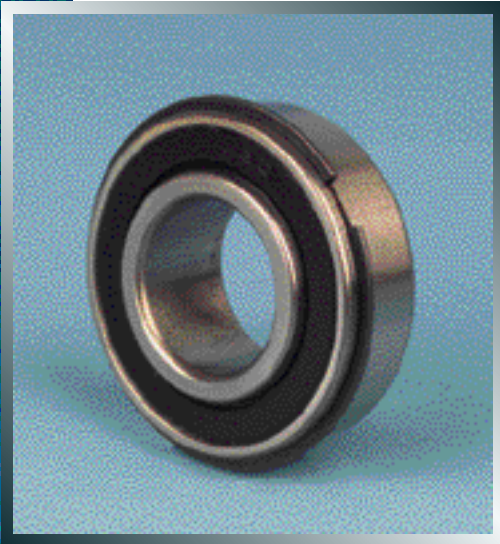
² Weight is based on an open, oiled bearing.

PART NUMBER NOMENCLATURE EXAMPLE:

21104-77 – Two Shields

21104-88 – Two Seals

8600 EXTRA LIGHT INCH SERIES EXTENDED INNER RING



This retainer-type, extra light, inch series bearing with extended inner ring, has a snap ring groove. The snap ring allows for easy positioning during mounting and eliminates costly machining operations. Ground raceways are 52100 chrome steel material with steel retainers. Maximum recommended speed is 5000 RPM. Bearings are factory lubricated and sealed.

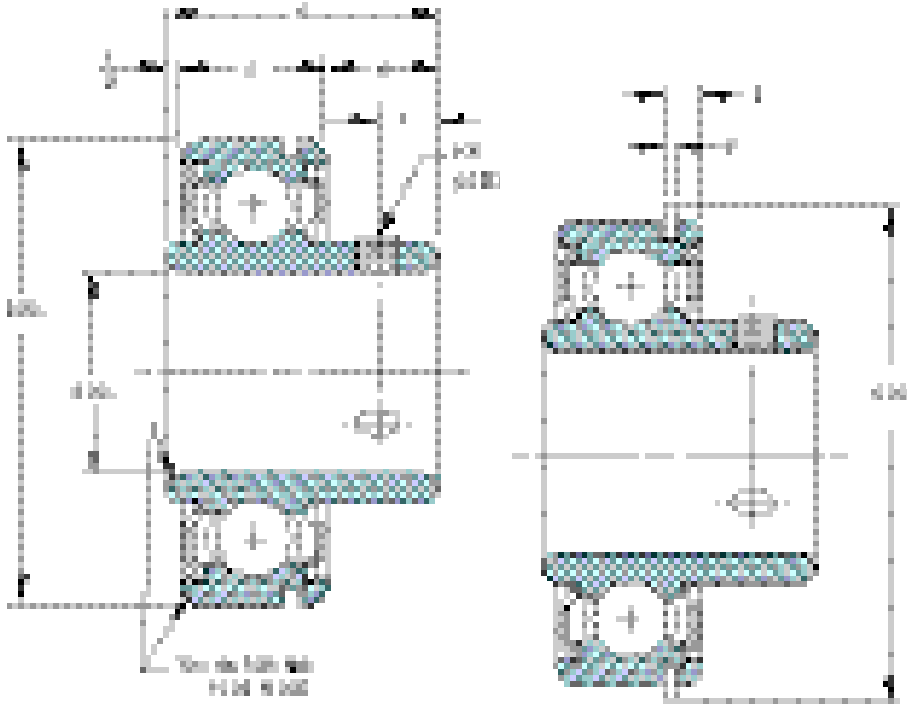
BASIC BEARING NUMBER	WITH SNAP RING	BORE A +.0000 -.0005	OUTSIDE DIAMETER B		WIDTH C OUTER RING +.000 -.005	WIDTH D INNER RING +.000 -.005	E	F	G	BASIC STATIC LOAD (lbs.)	BASIC DYNAMIC LOAD ¹ (lbs.)	WEIGHT (lbs.)
			inch	tol. +.0000								
8601	S8601	.5000	1.7500	-.0005	.625	.750	.136	.042	1-59/64	707	1366	.30
8602	S8602	.6250	1.7500	-.0005	.625	.750	.136	.042	1-59/64	707	1366	.28
8603	S8603	.7500	1.7500	-.0005	.625	.750	.136	.042	1-59/64	707	1366	.25
8604	S8604	.8750	2.0000	-.0006	.625	.750	.136	.042	2-5/32	1096	2040	.32
8605	S8605	1.0000	2.0000	-.0006	.625	.750	.136	.042	2-5/32	1096	2040	.29
8606	S8606	1.1250	2.5625	-.0006	.750	.875	.190	.065	2-27/32	1831	3070	.65
8607	S8607	1.2500	2.5625	-.0006	.750	.875	.190	.065	2-27/32	1831	3070	.60

¹ Dynamic Loads are based on 1 million revolutions.

PART NUMBER NOMENCLATURE EXAMPLE:

- 8601-88 – Snap Ring Groove only
- S8601-88 – Snap Ring

8700 EXTRA LIGHT INCH SERIES EXTENDED INNER RING AND SET SCREWS



This retainer-type, extra light, inch series bearing with extended inner ring, has a snap ring groove. The snap ring allows for easy positioning during mounting and eliminates costly machining operations. Ground raceways are 52100 chrome steel material with steel retainers. The extended inner ring is equipped with two set screws to secure the ring to the shaft. Maximum recommended speed is 5000 RPM. Bearings are factory lubricated and sealed.

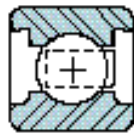
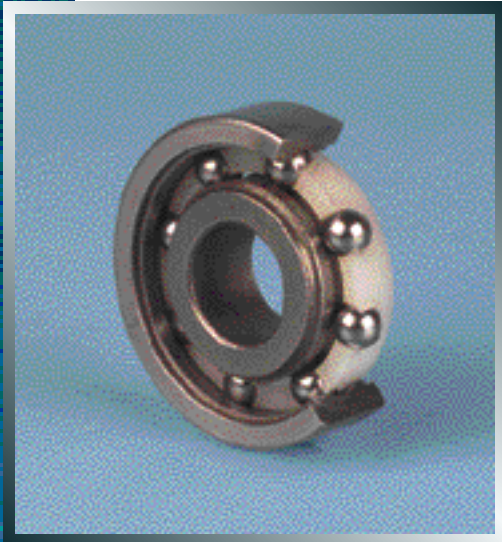
BASIC BEARING NUMBER	WITH SNAP RING	BORE A +.0000 -.0005	OUTSIDE DIAMETER B		WIDTH C	WIDTH D	E	F	G	H	J	BASIC STATIC LOAD (lbs.)	BASIC DYNAMIC LOAD ¹ (lbs.)	WEIGHT (lbs.)
			inch	tol. +.0000	OUTER RING +.000 -.005	INNER RING +.000 -.005								
8701	S8701	.5000	1.7500	-.0005	.625	1.092	.136	.042	1.921	.405	.233	707	1366	.38
8702	S8702	.6250	1.7500	-.0005	.625	1.092	.136	.042	1.921	.405	.233	707	1366	.34
8703	S8703	.7500	1.7500	-.0005	.625	1.092	.136	.042	1.921	.405	.233	707	1366	.31
8704	S8704	.8750	2.0000	-.0006	.625	1.179	.136	.042	2.156	.492	.261	1096	2040	.43
8706	S8706	1.0000	2.0000	-.0006	.625	1.179	.136	.042	2.156	.492	.261	1096	2040	.36
8709	S8709	1.2500	2.5625	-.0006	.750	1.417	.190	.065	2.843	.605	.261	1831	3070	.76

¹ Dynamic Loads are based on 1 million revolutions.

PART NUMBER NOMENCLATURE EXAMPLE:

8701-88 – Snap Ring Groove only
S8701-88 – Snap Ring

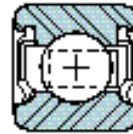
20000 UNGROUND RADIAL SERIES



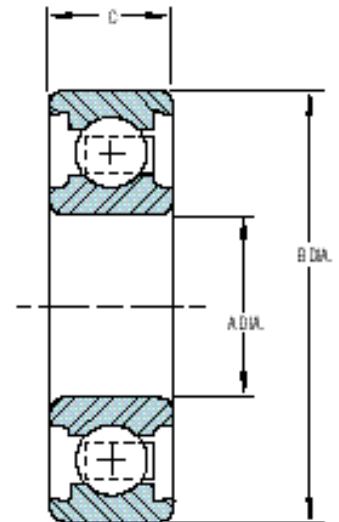
OPEN



TWO SHIELDS
ZZ
(37)



TWO SEALS
2RS
(88)



The unground radial series is designed to provide inexpensive, anti-friction bearing operation in applications where loads and speeds are moderate. These bearings are manufactured from selected carbon steel and are case hardened, and have nylon retainers to insure long life and maximum shock resistance. Bearings are ground on the outside diameter to insure proper housing fit. Since the raceways for these bearings are not ground, maximum recommended speed is 2500 RPM. Bearings are available open, shielded or sealed and are factory lubricated with grease. In addition to the standard sizes shown, specials can be supplied to accommodate a variety of service conditions and housing designs.

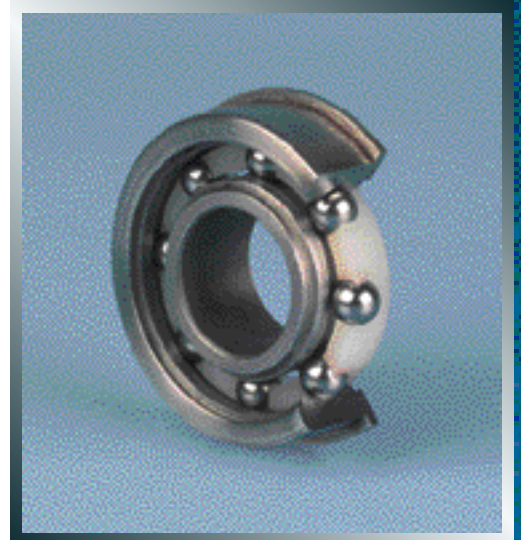
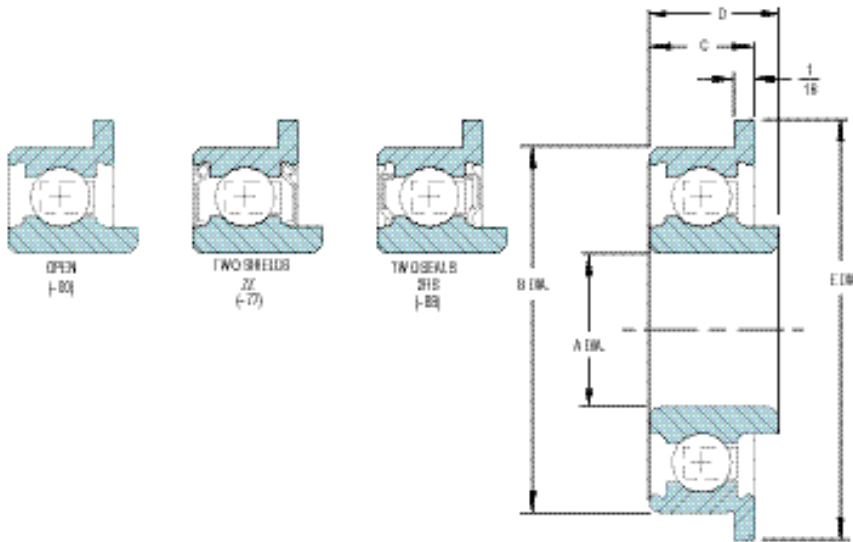
BASIC BEARING NUMBER	BORE A tol. +.005 -.000	OUTSIDE DIAMETER B tol. +.0000 -.0005	WIDTH C tol. ±.005	BASIC DYNAMIC LOAD ¹ (lbs.)	WEIGHT ² (lbs.)
21161	.187	.6875	†.250/.312	300	.020
21162	.250	.6875	†.250/.312	300	.014
21461	.312	.8750	†.281/.344	450	.028
21462	.375	.8750	†.281/.344	450	.028
21561	.312	.9062	.312	450	.033
21562	.375	.9062	.312	450	.033
21563	.437	.9062	.312	364	.029
21861	.375	1.1250	.375	691	.064
21862	.437	1.1250	.375	691	.059
21863	.500	1.1250	.375	691	.055
22261	.437	1.3750	.437	915	.104
22262	.500	1.3750	.437	915	.101
22263	.562	1.3750	.437	915	.096
22264	.625	1.3750	.437	915	.087
22661	.625	1.6250	.500	1171	.163
22662	.750	1.6250	.500	1171	.145
22861	.625	1.7500	.500	1171	.209
22862	.750	1.7500	.500	1171	.190
23261	.750	2.0000	.562	1749	.283
23262	.875	2.0000	.562	1749	.258
23263	1.000	2.0000	.562	1749	.224

†NOTE: When two widths are listed, the first dimension applies for open or shielded bearings. The second dimension applies for sealed bearings.

¹ Dynamic Loads are based on 1 million revolutions.

² Weight is based on an open, oiled bearing.

30000 UNGROUND FLANGED SERIES



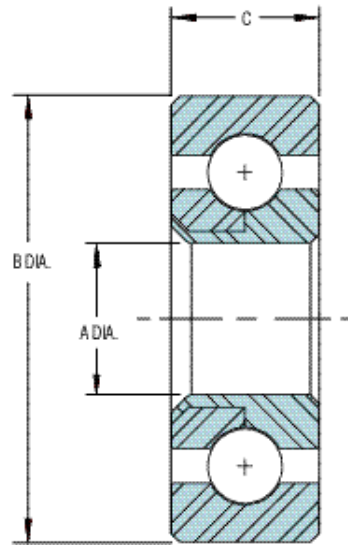
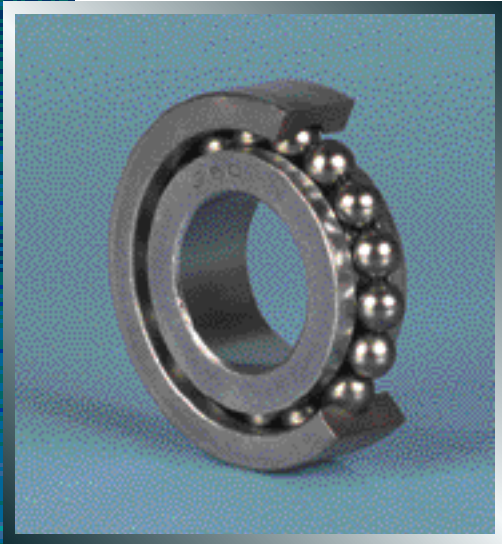
Integral flanges on the 30000 unground flanged series permit through boring of housing, thereby substantially reducing mounting cost. Made of select carbon steel, these bearings are case hardened and have nylon retainers for long life and maximum shock resistance. Maximum recommended speed is 2500 RPM. Bearings may be supplied open or with seals and/or shields, and all units are factory lubricated with grease.

BASIC BEARING NUMBER	BORE A tol. +.005 -.000	OUTSIDE DIAMETER B tol. +.005 -.000	WIDTH C OUTER RING tol. ±.005	WIDTH D INNER RING tol. ±.010	E tol. ±.010	BASIC DYNAMIC LOAD ¹ (lbs.)	WEIGHT ² (lbs.)
31161	.187	.687	.312	.375	.812	300	.023
31162	.250	.687	.312	.375	.812	300	.021
31461	.312	.875	.344	.406	1.000	450	.036
31462	.375	.875	.344	.406	1.000	450	.032
31561	.312	.906	.344	.406	1.000	450	.037
31562	.375	.906	.344	.406	1.000	450	.037
31861	.375	1.125	.375	.437	1.250	691	.070
31862	.437	1.125	.375	.437	1.250	691	.065
31863	.500	1.125	.375	.437	1.250	691	.061
32261	.437	1.375	.437	.500	1.500	915	.114
32262	.500	1.375	.437	.500	1.500	915	.111
32264	.625	1.375	.437	.500	1.500	915	.094
32661	.625	1.625	.500	.562	1.750	1171	.170
32662	.750	1.625	.500	.562	1.750	1171	.153
32861	.625	1.750	.500	.562	1.875	1171	.217
32862	.750	1.750	.500	.562	1.875	1171	.200
33261	.750	2.000	.562	.625	2.125	1749	.300
33262	.875	2.000	.562	.625	2.125	1749	.265
33263	1.000	2.000	.562	.625	2.125	1749	.239

¹ Dynamic Loads are based on 1 million revolutions.

² Weights are based on an open, oiled bearing.

UNGROUND RADIAL SERIES FULL BALL COMPLEMENT



Full complement unground radial bearings are designed for moderate loads, and speeds up to 1500 RPM. Inner and outer rings are machined from select carbon steel, then carefully hardened for long life and maximum shock resistance. All bearings are zinc plated for protection against corrosion.

These low cost bearings are used in business machines, appliances, conveyors, toys, displays, and many other industrial applications.

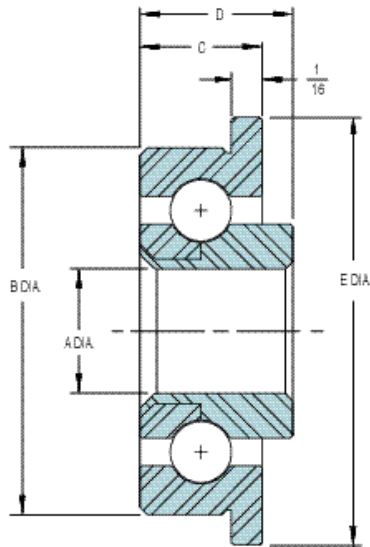
BASIC BEARING NUMBER	BORE A tol. +.005 -.000	OUTSIDE DIAMETER B tol. +.000 -.005	WIDTH C tol. ±.010	BASIC DYNAMIC LOAD ¹ (lbs.)	WEIGHT ² (lbs.)
21100-01	.187	.687	.250	287	.021
21101-01	.250	.687	.250	287	.017
21208-01	.250	.750	.250	306	.023
21401-01	.187	.875	.250	397	.038
21404-01	.250	.875	.250	397	.033
21481-01	.375	.875	.250	356	.028
21482-01	.312	.875	.250	356	.030
21485-01	.437	.875	.250	258	.027
21501-01	.375	.906	.312	371	.037
21517-01	.375	.937	.312	371	.042
21518-01	.312	.937	.312	371	.046
21519-01	.437	.937	.312	371	.039
21529-01	.312	.906	.312	371	.043
21556-01	.437	.906	.312	371	.035
21603-01	.250	1.000	.312	484	.050
21604-01	.375	1.000	.312	484	.051
21709-01	.437	1.062	.375	509	.060
21710-01	.250	1.062	.250	484	.060
21712-01	.437	1.062	.250	484	.049
21713-01	.375	1.062	.250	484	.046
21715-01	.375	1.062	.375	484	.066
21737-01	.437	1.062	.375	484	.071

BASIC BEARING NUMBER	BORE A tol. +.005 -.000	OUTSIDE DIAMETER B tol. +.000 -.005	WIDTH C tol. ±.010	BASIC DYNAMIC LOAD ¹ (lbs.)	WEIGHT ² (lbs.)
21803-01	.500	1.125	.375	533	.068
21817-01	.437	1.125	.375	533	.071
21846-01	.375	1.125	.375	533	.077
22006-01	.375	1.250	.375	533	.101
22007-01	.500	1.250	.375	533	.093
22107-01	.312	1.281	.312	533	.092
22108-01	.500	1.281	.312	533	.082
22142-01	.375	1.281	.312	533	.090
22211-01	.625	1.375	.437	769	.113
22213-01	.500	1.375	.437	769	.126
22405-01	.500	1.500	.437	769	.164
22407-01	.625	1.500	.437	769	.151
22603-01	.750	1.625	.375	825	.143
22606-01	.687	1.625	.375	825	.153
22607-01	.750	1.625	.500	825	.188
22801-01	.500	1.750	.563	1187	.291
22807-01	.750	1.750	.563	1187	.251
23011-01	.875	1.875	.500	1291	.223
23201-01	.750	2.000	.500	1384	.312
23210-01	1.000	2.000	.500	1384	.267
23601-01	1.125	2.250	.625	1384	.473
23701-01	1.250	2.312	.625	1432	.486

¹ Dynamic Loads are based on 1 million revolutions.

² Weights are based on an open, oiled bearing.

UNGROUND FLANGED SERIES FULL BALL COMPLEMENT



Unground radial flanged bearings are designed for moderate loads and speeds up to 1500 RPM. The flange positions the bearing during installation eliminating the need for snap rings or counter-boring the housing. Inner and outer rings are machined from selected carbon steel, then carefully hardened for long life and maximum shock resistance. All bearings contain a full complement of precision steel balls. All bearings are zinc plated for protection against corrosion.

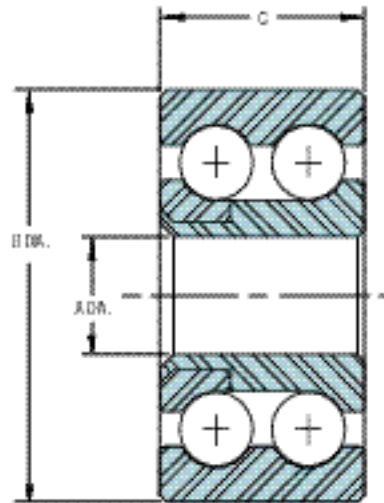
These low cost bearings are used in toys, appliances, business machines, displays, conveyors, and other industrial applications.

BASIC BEARING NUMBER	BORE A tol. +.005 -.000	OUTSIDE DIAMETER B tol. +.005 -.000	WIDTH C OUTER RING	WIDTH D INNER RING	E	BASIC DYNAMIC LOAD ¹ (lbs.)	WEIGHT ² (lbs.)
31205-01	.250	.687	.250	.250	.750	287	.019
31206-01	.250	.687	.250	.312	.750	287	.020
31207-01	.187	.625	.187	.203	.750	243	.014
31405-01	.250	.750	.250	.312	.875	287	.027
31616-01	.375	.906	.312	.350	1.000	356	.043
31617-01	.437	.906	.312	.375	1.000	356	.040
31622-01	.250	.875	.250	.312	1.000	356	.040
31623-01	.312	.875	.250	.312	1.000	341	.036
31702-01	.250	.906	.250	.375	1.031	356	.048
31703-01	.315	.906	.312	.375	1.031	356	.051
31704-01	.375	.906	.312	.375	1.031	356	.045
31705-01	.375	.906	.343	.437	1.031	356	.053
31706-01	.437	.906	.343	.437	1.031	356	.044
31910-01	.375	1.062	.375	.437	1.187	509	.076
31911-01	.437	1.062	.375	.437	1.187	509	.072
32004-01	.375	1.125	.375	.437	1.250	533	.087
32017-01	.312	1.125	.375	.437	1.250	533	.092
32018-01	.500	1.125	.375	.437	1.250	533	.078
32020-01	.500	1.187	.375	.437	1.250	533	.089
32212-01	.500	1.250	.375	.437	1.375	707	.099
32213-01	.625	1.250	.375	.437	1.375	594	.086
32418-01	.375	1.375	.437	.468	1.500	769	.150
32420-01	.500	1.375	.437	.468	1.500	769	.140
32421-01	.625	1.375	.437	.468	1.500	769	.126
32423-01	.750	1.375	.437	.468	1.500	650	.118
32703-01	.500	1.500	.437	.687	1.656	769	.211
32704-01	.625	1.500	.437	.484	1.656	769	.165
32705-01	.500	1.578	.500	.593	1.687	1000	.220
32707-01	.625	1.562	.437	.562	1.687	798	.193
32708-01	.750	1.562	.437	.468	1.687	798	.171
32807-01	.500	1.125	.500	.562	1.750	1187	.236
33006-01	.500	1.750	.562	.625	1.875	1187	.313
33103-01	.750	1.750	.562	.578	1.937	1187	.260
33206-01	.500	1.875	.500	.625	2.000	1291	.341
33207-01	.750	1.875	.500	.562	2.000	1291	.278
33408-01	.750	2.000	.500	.562	2.125	1384	.345
33409-01	1.000	2.000	.500	.625	2.125	1384	.307

¹ Dynamic Loads are based on 1 million revolutions.

² Weights are based on an open, oiled bearing.

UNGROUND RADIAL SERIES DOUBLE ROW



Unground double row bearings are recommended for applications where the load capacity of a single row bearing is insufficient and because of space restrictions, a larger, single row bearing cannot be used. The bore and outside diameter are generally interchangeable with single row radial bearings.

The inner and outer rings are machined from selected carbon steel, then carefully hardened for long life and maximum shock resistance. They contain a full complement of precision steel balls. The two rows of balls provide stability. All bearings are zinc plated for protection against corrosion.

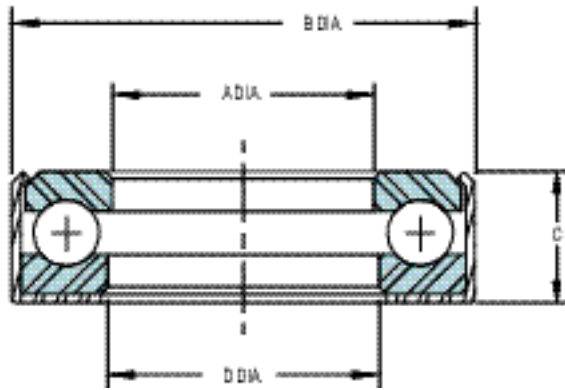
These bearings are suitable for heavy duty work loads in wheels, conveyor rollers, cam followers, etc.

BASIC BEARING NUMBER	BORE A tol. +.005 -.000	OUTSIDE DIAMETER B tol. +.000 -.005	WIDTH C tol. ±.010	BASIC DYNAMIC LOAD ¹ (lbs.)	WEIGHT ² (lbs.)
21139-01	.250	.687	.437	466	.030
21486-01	.250	.875	.437	645	.061
21487-01	.312	.875	.437	579	.053
21488-01	.375	.875	.437	579	.046
21489-01	.437	.875	.437	419	.045
21557-01	.315	.937	.500	602	.067
21558-01	.375	.937	.500	602	.062
21559-01	.437	.937	.500	602	.058
21738-01	.375	1.062	.562	827	.093
21739-01	.437	1.062	.562	827	.091
21850-01	.375	1.125	.562	865	.119
21851-01	.500	1.125	.562	865	.093
21852-01	.562	1.125	.562	900	.084
22143-01	.375	1.281	.531	865	.107
22295-01	.625	1.375	.625	1249	.160
22458-01	.500	1.500	.750	1249	.209
22459-01	.625	1.500	.750	1249	.194
22618-01	.750	1.625	.625	1928	.217
22816-01	.750	1.750	.937	1928	.388
23012-01	.875	1.875	.875	2097	.372
23211-01	1.000	2.000	.875	2249	.450

¹ Dynamic Loads are based on 1 million revolutions.

² Weights are based on an open, oiled bearing.

UNGROUND BANDED THRUST SERIES FULL BALL COMPLEMENT



Unground banded thrust bearings are designed for moderate speeds and loads. They contain a full complement of hardened steel balls. Races are cold formed then carefully hardened for high resistance to wear. The soft steel housing acts as a shield to help keep lubricant in and contaminants out. Banded thrust bearings are especially suited for such applications as jacks, hoists, hinges, display stands, revolving doors and automotive steering mechanisms.

BASIC BEARING NUMBER	UPPER RACE A tol. +.010 -.000	OUTSIDE DIAMETER B tol. ±.010	WIDTH C tol. ±.010	LOWER RACE D tol. ±.010	BASIC DYNAMIC LOAD ¹ (lbs.)	WEIGHT ² (lbs.)
4450-00	.250	.843	.328	.275	570	.032
4451-00	.375	1.047	.360	.400	660	.057
4452-00	.438	1.047	.360	.462	651	.042
4453-00	.453	.859	.281	.478	443	.024
4454-00	.500	1.266	.438	.525	1325	.093
4455-00	.500	1.000	.344	.525	859	.042
4456-00	.563	1.344	.438	.587	1380	.102
4457-00	.625	1.125	.344	.656	492	.048
4458-00	.625	1.422	.453	.650	1432	.118
4459-00	.750	1.656	.547	.775	1582	.195
4460-00	.875	1.891	.594	.900	1650	.265
4462-00	1.000	2.016	.640	1.025	2256	.299
4463-00	1.000	1.969	.625	1.031	1678	.275
4464-00	1.015	1.750	.625	1.031	1943	.209
4465-00	1.063	1.969	.625	1.094	1668	.262
4469-00	1.250	2.344	.625	1.275	1867	.384

¹ Dynamic Loads are based on 1 million revolutions.

² Weights are based on an open, oiled bearing.