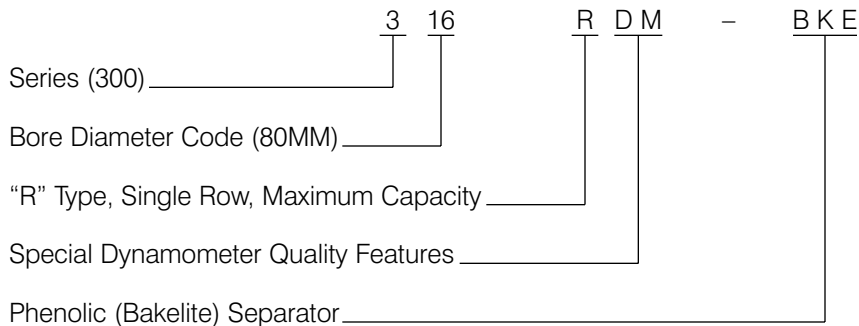


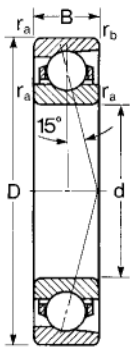
For several years, MRC Bearing Services has supplied specially designed bearings for dynamometer applications. These bearings are manufactured with the following characteristics.

- ABEC 5 Inner Ring Tolerances.
- Inner ring eccentricity value, not to exceed 0.0005", marked on the inner ring face at the location of maximum lateral runout.
- Special internal radial clearance.
- Special "E" Grade Balls.
- High speed, lightweight, inner ring land-guided phenolic (Bakelite) separators.

Dynamometer Bearing Identification



These bearings were developed to minimize operating temperatures, noise and vibration in dynamometer applications. To achieve best results the value of eccentricity marked on the inner ring face should be aligned 180° opposite the high point of eccentricity measured at the shaft journal. If the bearings are grease lubricated, they should be carefully hand packed prior to installation to make sure that grease is worked into the close running clearance between the O.D. of the inner ring and the I.D. of the separator.



200-RDM Series dynamometer bearings are made with bore diameters ranging from 80mm to 130mm. These bearings are recommended for high speed dynamometers or any application involving moderate to heavy radial loads, moderate thrust loads in one direction, or for combinations of both.

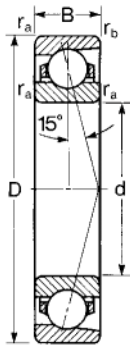
MRC Bearing Number	Bore		Outside Diameter D		Width B		Fillet Radius ¹⁾				ZD ²⁾		Basic Radial Load Rating		Speed Rating ²⁾			
													Dynamic C _r ³⁾		Static C ₀		Grease	Oil
	d	mm	in	mm	in	mm	in	r _a	mm	in	r _b	mm	in	N	lbf	N	lbf	RPM
216RDM	80	3.1496	140	5.5118	26	1.0236	2.0	.08	1.0	.040	4 880	7.57	85 200	19 200	73 500	16 500	10 300	14 800
218RDM	90	3.5433	160	6.2992	30	1.1811	2.0	.08	1.0	.040	7 870	12.2	130 000	29 200	116 000	26 100	8 700	12 600
219RDM	95	3.7402	170	6.6929	32	1.2598	2.0	.08	1.0	.040	8 390	13.0	138 000	31 000	125 000	28 100	8 300	12 000
220RDM	100	3.9370	180	7.0866	34	1.3386	2.0	.08	1.0	.040	9 610	14.9	153 000	34 400	143 000	32 100	7 800	11 200
221RDM	105	4.1339	190	7.4803	36	1.4173	2.0	.08	1.0	.040	10 300	16.0	168 000	37 800	153 000	34 400	7 400	10 600
226RDM	130	5.1181	230	9.0551	40	1.5748	2.5	.10	1.0	.040	15 500	24.0	221 000	49 700	232 000	52 200	6 000	9 000

¹⁾ Fillet radius indicates maximum fillet radius on shaft or in housing which bearing corner will clear.

²⁾ Listed values are for inner ring land guided, phenolic composition cage.

The values have been determined through historical application and practice. For a more complete explanation, see page 276.

³⁾ Rating for one million revolutions or 500 hours at 33 1/3 RPM.



300-RDM Series dynamometer bearings are made with bore diameters ranging from 35mm to 160mm. These bearings are recommended for high speed dynamometers or any application involving moderate to heavy radial loads, moderate thrust loads in one direction, or for combinations of both.

MRC Bearing Number	Bore		Outside Diameter D		Width B		Fillet Radius ¹⁾				Basic Radial Load Rating				Speed Rating ²⁾			
											Dynamic C ³⁾		Static C ₀		Grease	Oil		
	d	mm	in	mm	in	mm	in	r _a	r _b	ZD ²⁾	N	lbf	N	lbf	RPM	RPM		
307RDM	35	1.3780	80	3.1496	21	.8268	1.5	.06	1.0	.040	1 940	3.00	39 000	8 770	26 000	5 850	19 500	28 000
309RDM	45	1.7717	100	3.9370	25	.9843	1.5	.06	1.0	.040	3 030	4.69	58 500	13 200	40 500	9 100	15 400	22 400
310RDM	50	1.9685	110	4.3307	27	1.0630	2.0	.08	1.0	.040	4 350	6.75	80 600	18 100	57 000	12 800	14 500	21 000
311RDM	55	2.1654	120	4.7244	29	1.1417	2.0	.08	1.0	.040	5 110	7.92	93 600	21 000	67 000	15 100	12 900	18 700
312RDM	60	2.3622	130	5.1181	31	1.2205	2.0	.08	1.0	.040	5 930	9.19	108 000	24 300	78 000	17 500	11 500	16 800
313RDM	65	2.5591	140	5.5118	33	1.2992	2.0	.08	1.0	.040	6 900	10.7	121 000	27 200	93 000	20 900	11 000	15 700
315RDM	75	2.9528	160	6.2992	37	1.4567	2.0	.08	1.0	.040	9 050	14.0	153 000	34 400	122 000	27 400	9 900	14 000
316RDM	80	3.1496	170	6.6929	39	1.5354	2.0	.08	1.0	.040	9 480	14.7	159 000	35 700	129 000	29 000	8 700	12 600
318RDM	90	3.5433	190	7.4803	43	1.6929	2.5	.10	1.0	.040	11 800	18.3	185 000	41 600	160 000	36 000	7 800	11 200
320RDM	100	3.9370	215	8.4646	47	1.8504	2.5	.10	1.0	.040	14 400	22.4	212 000	47 700	200 000	45 000	6 900	10 100
321RDM	105	4.1339	225	8.8583	49	1.9291	2.5	.10	1.0	.040	15 900	24.6	229 000	51 500	204 000	45 900	6 400	9 500
322RDM	110	4.3307	240	9.4488	50	1.9685	2.5	.10	1.0	.040	18 800	29.2	255 000	57 300	255 000	57 300	6 000	9 000
324RDM	120	4.7244	260	10.2352	55	2.1654	2.5	.10	1.0	.040	22 100	34.3	265 000	59 600	300 000	67 400	6 000	8 400
326RDM	130	5.1181	280	11.0236	58	2.2835	3.0	.12	1.0	.040	25 700	39.8	296 000	66 500	345 000	77 600	5 300	7 800
328RDM	140	5.5118	300	11.8110	62	2.4409	3.0	.12	1.0	.040	29 500	45.7	351 000	78 900	400 000	89 900	4 800	7 300
330RDM	150	5.9055	320	12.5984	65	2.5591	3.0	.12	1.0	.040	33 900	52.6	390 000	87 700	475 000	107 000	4 600	6 700
332RDM	160	6.2992	340	13.3853	68	2.6772	3.0	.12	1.0	.040	38 400	59.6	423 000	95 100	530 000	119 000	4 100	6 200

¹⁾ Fillet radius indicates maximum fillet radius on shaft or in housing which bearing corner will clear.

²⁾ Listed values are for inner ring land guided, phenolic composition cage.

The values have been determined through historical application and practice. For a more complete explanation, see page 276.

³⁾ Rating for one million revolutions or 500 hours at 33½ RPM.