

McGILL® SPHERE-ROL® Spherical Bearings



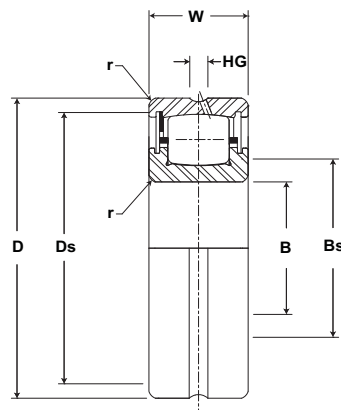
Basic Construction Type: 22200 Series Spherical Bearing With Non-Separable Inner Ring

Rolling Elements: Separated Spherical Rolling Elements

Bearing Material: Bearing Quality Steel

Seal Type: NYLAPLATE or LAMBDA

Lubrication: Sealed Bearings: Polyurea thickened NLGI 2 EP Grease.
Unsealed Bearings: Corrosion Preventive Oil



SB 22200

Part No.	B		D		W		Bs	Ds	HG	J	r	Limiting Speed (In Oil)	BDR	
	Bore Diameter		Outside Diameter		Width		Min Shoulder Diameter Inner	Min Shoulder Diameter Outer	Annular Lub Groove	Lambda Seal Minimum Clearance	Maximum radius or fillet to clear		Basic Dynamic Rating	Bearing Weight
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm		N/lb	kg lb
Base Bearing	Nom.	Tol.	Nom.	Tol.	Nom.	Tol.	Ref	Ref	W33	Ref	Ref	RPM*		
SB-22204	20.000 0.7874	+0/-0.010 +0/-0.0004	47.000 1.8504	+0/-0.013 +0/-0.0005	18.00 .709	+0/-0.13 +0/-0.005	25 1.0	41 1.6	3 .1	3 .1	1.0 .04	11000	31,140 7,000	.15 .32
SB-22205	25.000 0.9843	+0/-0.010 +0/-0.0004	52.000 2.0472	+0/-0.013 +0/-0.0005	18.00 .709	+0/-0.13 +0/-0.005	30 1.2	46 1.8	5 .2	3 .1	1.0 .04	9000	36,030 8,100	.18 .40
SB-22206	30.000 1.1811	+0/-0.010 +0/-0.0004	62.000 2.4409	+0/-0.013 +0/-0.0005	20.00 .787	+0/-0.13 +0/-0.005	36 1.4	56 2.2	5 .2	3 .1	1.0 .04	8100	51,150 11,500	.29 .64
SB-22207	35.000 1.378	+0/-0.013 +0/-0.0005	72.000 2.8346	+0/-0.013 +0/-0.0005	23.00 .906	+0/-0.13 +0/-0.005	41 1.6	61 2.4	5 .2	3 .1	1.0 .04	6800	67,160 15,100	.43 .95
SB-22208	40.000 1.5748	+0/-0.013 +0/-0.0005	80.000 3.1496	+0/-0.013 +0/-0.0005	23.00 .906	+0/-0.13 +0/-0.005	48 1.9	71 2.8	5 .2	3 .1	1.0 .04	6000	74,730 16,800	.54 1.20
SB-22209	45.000 1.7717	+0/-0.013 +0/-0.0005	85.000 3.3465	+0/-0.015 +0/-0.0006	23.00 .906	+0/-0.13 +0/-0.005	53 2.1	74 2.9	5 .2	3 .1	1.0 .04	5600	79,170 17,800	.59 1.30
SB-22210	50.000 1.9685	+0/-0.013 +0/-0.0005	90.000 3.5433	+0/-0.015 +0/-0.0006	23.00 .906	+0/-0.13 +0/-0.005	58 2.3	79 3.1	5 .2	3 .1	1.0 .04	5250	83,180 18,700	.64 1.40
SB-22211	55.000 2.1654	+0/-0.015 +0/-0.0006	100.000 3.937	+0/-0.015 +0/-0.0006	25.00 .984	+0/-0.15 +0/-0.006	64 2.5	89 3.5	5 .2	3 .1	1.5 .06	4650	102,300 23,000	.86 1.90
SB-22212	60.000 2.3622	+0/-0.015 +0/-0.0006	110.000 4.3307	+0/-0.015 +0/-0.0006	28.00 1.102	+0/-0.15 +0/-0.006	71 2.8	99 3.9	5 .2	3 .1	1.5 .06	4200	129,880 29,200	1.18 2.60
SB-22213	65.000 2.5591	+0/-0.015 +0/-0.0006	120.000 4.7244	+0/-0.015 +0/-0.0006	31.00 1.221	+0/-0.15 +0/-0.006	74 2.9	107 4.2	5 .2	3 .1	1.5 .06	3800	157,900 35,500	1.54 3.40
SB-22214	70.000 2.7559	+0/-0.015 +0/-0.0006	125.000 4.9213	+0/-0.020 +0/-0.0008	31.00 1.221	+0/-0.15 +0/-0.006	79 3.1	112 4.4	5 .2	3 .1	1.5 .06	3650	159,680 35,900	1.63 3.60
SB-22215	75.000 2.9528	+0/-0.015 +0/-0.0006	130.000 5.1181	+0/-0.020 +0/-0.0008	31.00 1.221	+0/-0.15 +0/-0.060	84 3.3	117 4.6	5 .2	3 .1	1.5 .06	3500	167,240 37,600	1.77 3.90

Add K to base number indicate K bore option

Add W22 for select OD

All bearings are supplied with W33 option unless otherwise specified

*Refers to oil lubrication and moderate load, use 50% of value for grease lubrication.

Complete adapter number indicated adapter sleeve, locknut, and washer, for components refer to S=sleeve, N= lock Nut, W= lock washer

For Expansion type bearing add E suffix immediately after diametrical clearance specification per nomenclature diagram.

For Sealing options see page D-8

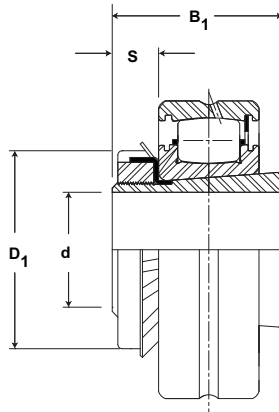
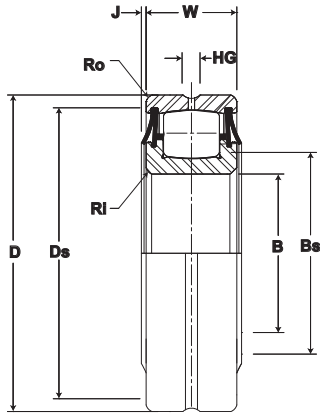
Outside diameter may be oversized, due to internal retaining ring

Metric dimensions for reference only.

Not all parts are available from stock. Please contact customer service for availability (800) 626-2120.

For more information on bearing capabilities outside of our standard offering, please contact Application Engineering (800) 626-2093.

SPHERE-ROL® Spherical Bearings MCGILL®



Sphere-Rol
Bearings



SB 22200

Part No.	Straight Bore Internal Radial Clearance								Taper (K) Bore Internal Radial Clearance (1" in 12" on Diameter)								Optional Adapter Dimensions						
Base Bearing	C2		Standard		C3		C4		C2		Standard		C3		C4		Adapter No.	Adapter Shaft Dimension	B1	S	D1		
	mm inch		mm inch		mm inch		mm inch		mm inch		mm inch		mm inch		mm inch			mm inch		mm inch			
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max		(Ref)	(Ref)	(Ref)	(Ref)		
SB-22204	.0102 .0004	.2032 .0008	.0356 .0014		.0457 .0018		.0610 .0024		.0152 .0006		.0254 .0010		.0356 .0014		.0457 .0018		.0610 .0024		-	-	-	-	-
SB-22205	.0152 .0006	.0254 .0010	.0406 .0016		.0559 .0022		.0711 .0028		.0203 .0008		.0305 .0012		.0432 .0017		.0559 .0022		.0762 .0030		SNW 05*	3.3 .75	5.6 1.27	2.0 .45	6.9 1.56
SB-22206	.0152 .0006	.0305 .0012	.0457 .0018		.0610 .0024		.0813 .0032		.0203 .0008		.0356 .0014		.0508 .0020		.0660 .0026		.0864 .0034		SNW 06*	4.2 .94	6.0 1.36	2.0 .45	7.8 1.75
SB-22207	.0152 .0006	.0305 .0012	.0457 .0018		.0610 .0024		.0813 .0032		.0203 .0008		.0356 .0014		.0508 .0020		.0660 .0026		.0864 .0034		SNW 07*	5.3 1.19	6.4 1.45	2.1 .48	9.2 2.06
SB-22208	.0203 .0008	.0356 .0014	.0559 .0022		.0762 .0030		.0813 .0032		.0305 .0012		.0457 .0018		.0610 .0024		.0813 .0032		.1041 .0041		SNW 08*	5.8 1.31	6.7 1.50	2.2 .50	10.0 2.25
SB-22209	.0203 .0008	.0356 .0014	.0559 .0022		.0762 .0030		.0813 .0032		.0305 .0012		.0457 .0018		.0610 .0024		.0813 .0032		.1041 .0041		SNW 09*	6.4 1.44	7.0 1.58	2.2 .50	11.3 2.53
SB-22210	.0254 .0010	.0432 .0017	.0660 .0026		.0914 .0036		.1194 .0047		.0356 .0014		.0559 .0022		.0762 .0030		.0991 .0039		.1245 .0049		SNW 10*	7.5 1.69	7.9 1.77	2.5 .56	12.0 2.69
SB-22211	.0254 .0010	.0432 .0017	.0660 .0026		.0914 .0036		.1194 .0047		.0356 .0014		.0559 .0022		.0762 .0030		.0991 .0039		.1245 .0049		SNW 11*	8.6 1.94	8.2 1.84	2.5 .56	13.2 2.97
SB-22212	.0254 .0010	.0432 .0017	.0660 .0026		.0914 .0036		.1194 .0047		.0356 .0014		.0559 .0022		.0762 .0030		.0991 .0039		.1245 .0049		-	-	-	-	-
SB-22213	.0305 .0012	.0508 .0020	.0813 .0032		.1118 .0044		.1448 .0057		.0457 .0018		.0711 .0028		.0940 .0037		.1245 .0049		.1549 .0061		SNW 13	9.7 2.19	9.4 2.11	2.8 .63	15.0 3.38
SB-22214	.0305 .0012	.0508 .0020	.0813 .0032		.1118 .0044		.1448 .0057		.0457 .0018		.0711 .0028		.0940 .0037		.1245 .0049		.1549 .0061		-	-	-	-	-
SB-22215	.0305 .0012	.0508 .0020	.0813 .0032		.1118 .0044		.1448 .0057		.0457 .0018		.0711 .0028		.0940 .0037		.1245 .0049		.1549 .0061		SNW 15*	10.9 2.44	10.2 2.30	3.0 .67	17.3 3.88

* For sizes marked, standard ABMA locknuts and lock washers will not clear the LAMBDA seal unless 1/16" thick spacer is used between the face of bearing and washer (or locknut).