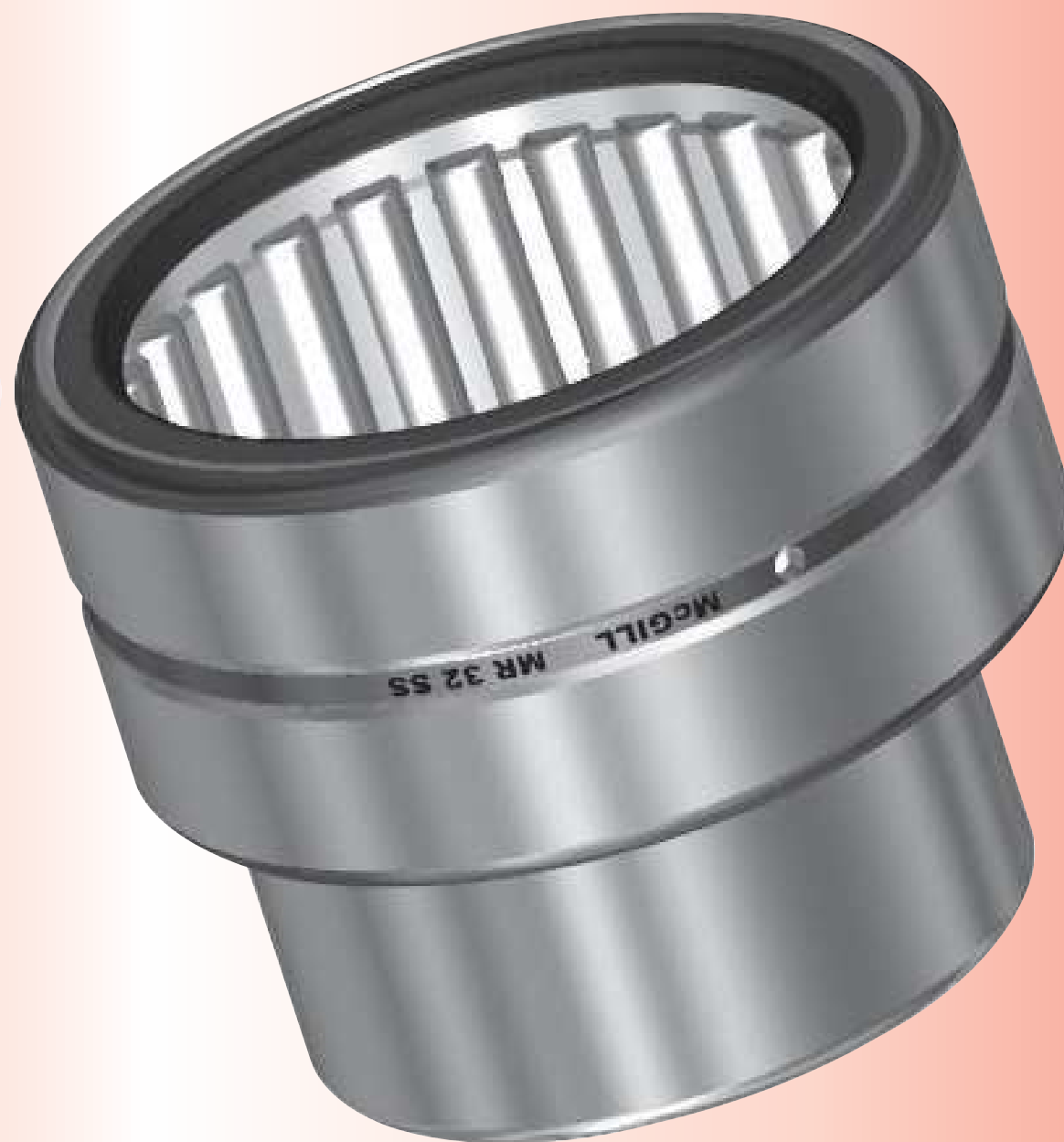




Needle

Unmounted bearing assembly consisting of through hardened precision machined inner and outer raceways with either full complement or separated (cage) needle rolling elements. Depending on the bearing configuration the retainer can be land or roller riding and available with several seal options. Machined race needle bearings provide an antifriction solution when supporting rotating shafts with radial loads.

Bearing Configurations

Separable Or Non-Separable Inner/Outer Raceway

Shaft Diameter Range

1/2" To 9 1/4" And 15 mm To 235 mm

Materials

Bearing Quality Steel

Needle Selection Guide



				SIZE RANGE	
		Product Series	Material / Roller Complement	Inch	Metric Equiv.
CAGEROL		MR	Bearing Steel Caged Needle Roller	5/8" - 9 1/4"	16 - 235
		MR Sealed		5/8" - 4 1/4"	16 - 108
		MR Narrow		5/8" - 6 1/2"	16 - 165
GUIDEROL		GR	Bearing Steel Full Complement Center Guided Needle Roller	1/2" - 9 1/4"	13 - 235
		GR Sealed		5/8" - 4 1/4"	16 - 108
		GR Narrow		5/8" - 6 1/2"	16 - 165
MULTI-ROL		RS	Bearing Steel Full Complement Needle Roller	3/4" - 3"	19 - 76
		RD		1 1/4" - 4"	32 - 102
Journal		200 Series	Bearing Steel Caged Roller	1 3/16" - 8 5/8"	30 - 220
		300 Series		1" - 5 3/16"	25 - 130

Metric dimensions are for reference only.
Listed needle roller bearings are manufactured to inch dimensions.

* For estimating purpose only, individually sizes may vary and are subject to change without notification



Needle Bearings **ROLLWAY® MCGILL®**

Needle/Journal Bearings



Design Characteristics						Features							
Limited Radial Space	Dynamic Load Rating	Static Load Rating	Oscillating Capability	High Speed	Relative Base Cost *	Separable Inner Race	Double Row	Oil Holes	Rubber Lip Seal	Metallic Shield	DS Matching	Separable Outer	Page No.
					\$	O	-	S	-	-	O	-	C-9
					\$	O	-	S	S	-	O	-	C-9
					\$	O	-	S	-	-	O	-	C-9
					\$\$\$	O	-	S	-	-	O	-	C-21
					\$\$\$	O	-	S	S	-	O	-	C-21
					\$\$\$	O	-	S	-	-	O	-	C-21
					\$\$	-	-	S	-	S	O	-	C-33
					\$\$	-	S	S	-	S	O	-	C-34
					\$\$\$	O	-	S	-	-	-	S	C-37
					\$\$\$	O	-	S	-	-	-	S	C-37

Utilize Mi Inner Rings For Installations On Unhardened Shafts

Higher Radial Loads

Relubrication To Help Promote Long Operating Life

Contamination Barrier Lubrication Retention

Elevated Temperature Applications (When Applied With Suitable Lubricant)

Recommended For Load Sharing When Mounting Bearing Pairs

Available As Complete Assembly Or Individual Components

O = Optional

S = Standard

○ = Not Recommended

◐ ◑ ◒ ◓ ◔

Poor ← → **Best**

Note: Cost ranges are approximate in the secondary dimension

McGill MULTI-ROL Needle Bearings

Full complement needle bearing provides high radial load rating with good shaft support, angular rigidity, and is dimensionally equivalent to most plain bearings with bronze or babbitt bushing. Available in both single and two row designs with non separable inner race and metallic shields for pure radial load applications. The angular lube groove provides a circumferential path to direct lubricant to the oil hole.

Needle/Journal Bearings

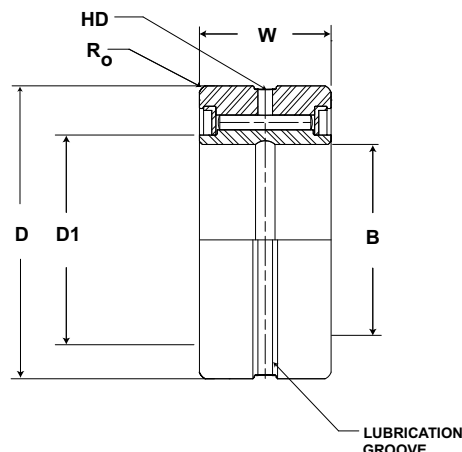


Basic Construction Type: Full Complement Machined Race Needle Bearing and Non Separable Inner Ring

Rolling Elements: Single Row Precision Ground Needle

Bearing Material: Bearing Quality Steel

Seal Type: Metallic Shield



RS Series

Part No.	B		D		W	Housing Bore Diameter			HD	Ro	Limiting Speed (In Oil)*	Basic Dynamic Rating	Basic Static Rating	Weight
Single Row	Bore Diameter		Outside Diameter		Width				Radial Lub. Hole Diameter	Max Hsg Radius to Clear				
	inch mm		inch mm		inch mm	inch mm			inch mm		RPM	lb/N	lb/N	lb kg
	Nom	Tol.	Nom	Tol.	Tol +0/-0.005 (+0/-0.13)	Rotating	Stationary	Tol.	(Ref)	(Ref)				
RS 6	.7500 19.058	+0/-0.0004 +0/-0.010	1.5000 38.115	+0/-0.0005 +0/-0.013	.8750 22.234	1.5000 38.115	1.5005 38.128	.0007 0.018	.1250 3.176	.0313 0.794	5,000	3850 17,125	11500 51,152	.26 .12
RS 7	.8750 22.234	+0/-0.0005 +0/-0.013	1.6250 41.291	+0/-0.0005 +0/-0.013	1.0000 25.410	1.6250 41.291	1.6255 41.304	.0007 0.018	.1250 3.176	.0313 0.794	4,400	5560 24,731	15550 69,166	.34 .15
RS 8	1.0000 25.410	+0/-0.0005 +0/-0.013	1.8125 46.056	+0/-0.0005 +0/-0.013	1.0625 26.998	1.8125 46.056	1.8130 46.068	.0007 0.018	.1250 3.176	.0313 0.794	4,000	6170 27,444	18700 83,178	.42 .19
RS 9	1.1250 28.586	+0/-0.0005 +0/-0.013	1.9375 49.232	+0/-0.0005 +0/-0.013	1.0625 26.998	1.9375 49.232	1.9875 50.502	.0007 0.018	.1250 3.176	.0313 0.794	3,600	6500 28,912	20500 91,184	.46 .21
RS 10	1.2500 31.763	+0/-0.0005 +0/-0.013	2.0625 52.408	+0/-0.0006 +0/-0.015	1.0625 26.998	2.0625 52.408	2.0630 52.421	.0007 0.018	.1250 3.176	.0313 0.794	3,300	6830 30,380	22400 99,635	.49 .22
RS 12	1.5000 38.115	+0/-0.0005 +0/-0.013	2.5000 63.525	+0/-0.0006 +0/-0.015	1.1250 28.586	2.5000 63.525	2.5005 63.538	.0007 0.018	.1250 3.176	.0625 1.588	2,900	7740 34,428	27500 122,320	.83 .37
RS 14	1.7500 44.468	+0/-0.0005 +0/-0.013	2.7500 69.878	+0/-0.0006 +0/-0.015	1.1250 28.586	2.7500 69.878	2.7505 69.890	.0007 0.018	.1250 3.176	.0625 1.588	2,500	8330 37,052	31400 139,667	.93 .42
RS 16	2.0000 50.820	+0/-0.0005 +0/-0.013	3.2500 82.583	+0/-0.0006 +0/-0.015	1.1875 30.174	3.2499 82.580	3.2505 82.595	.0007 0.018	.1250 3.176	.0625 1.588	2,000	9820 43,679	42200 187,706	1.45 .66
RS 20	2.5000 63.525	+0/-0.0006 +0/-0.015	3.7500 95.288	+0/-0.0008 +0/-0.020	1.2500 31.763	3.7498 95.282	3.7507 95.305	.0010 0.025	.1875 4.764	.0938 2.382	1,700	11200 49,818	52900 235,299	1.79 .81
RS 22	2.7500 69.878	+0/-0.0006 +0/-0.015	4.0000 101.640	+0/-0.0008 +0/-0.020	1.2500 31.763	3.9998 101.635	4.0007 101.658	.0010 0.025	.1875 4.764	.0938 2.382	1,500	9920 44,124	46700 207,722	2.00 .91
RS 24	3.0000 76.230	+0/-0.0006 +0/-0.015	4.5000 114.345	+0/-0.0008 +0/-0.020	1.3750 34.939	4.4998 114.340	4.5007 114.363	.0010 0.025	.1875 4.764	.0938 2.382	1,400	14500 64,496	58100 258,429	2.88 1.31

* For bearing properly filled with #1 grease reduce speed by 50%

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.