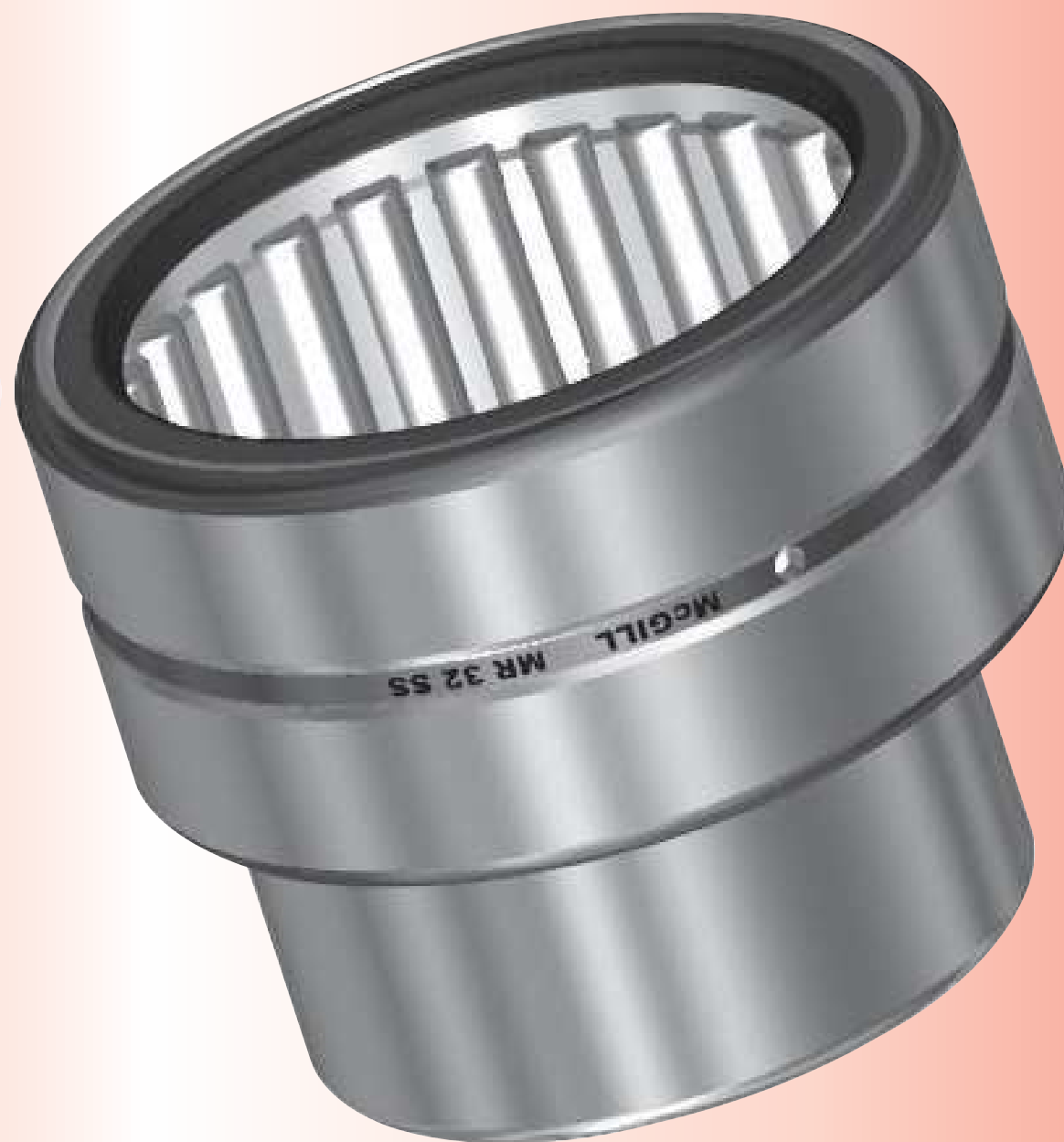




Needle

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

MULTI-ROL Bearings **MCGILL®**

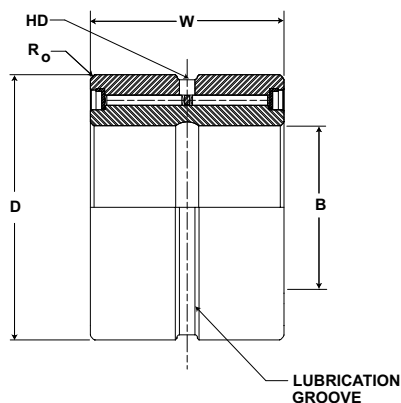


Basic Construction Type: Full Complement Machined Race Needle Bearing and Non Separable Inner Ring

Rolling Elements: Double Row Precision Ground Needle

Bearing Material: Bearing Quality Steel

Seal Type: Metallic Shield



RD 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)				
RD 10	1.2500 31.763	+0/-0.0005 +0/-0.013	2.0625 52.408	+0/-0.0006 +0/-0.015	2.2500 57.173	2.0625 52.408	2.0630 52.421	.0007 0.018	.1875 4.764	.0313 0.794	3,300	13600 60,493	54300 241,526	1.16 .53
RD 12	1.5000 38.115	+0/-0.0005 +0/-0.013	2.5000 63.525	+0/-0.0006 +0/-0.015	2.3750 60.349	2.5000 63.525	2.5005 63.538	.0007 0.018	.1875 4.764	.0625 1.588	2,900	15200 67,610	65700 292,234	1.83 .83
RD 14	1.7500 44.468	+0/-0.0005 +0/-0.013	2.7500 69.878	+0/-0.0006 +0/-0.015	2.3750 60.349	2.7500 69.878	2.7505 69.890	.0007 0.018	.1875 4.764	.0625 1.588	2,500	16400 72,947	75100 334,045	2.06 .93
RD 16	2.0000 50.820	+0/-0.0005 +0/-0.013	3.2500 82.583	+0/-0.0006 +0/-0.015	2.3750 60.349	3.2499 82.580	3.2505 82.595	.0007 0.018	.1875 4.764	.0625 1.588	2,000	18300 81,398	94000 418,112	3.09 1.40
RD 18	2.2500 57.173	+0/-0.0005 +0/-0.013	3.5000 88.935	+0/-0.0008 +0/-0.020	2.5000 63.525	3.4998 88.930	3.5007 88.953	.0010 0.025	.1875 4.764	.0625 1.588	1,800	19200 85,402	102600 456,365	3.57 1.62
RD 20	2.5000 63.525	+0/-0.0006 +0/-0.015	3.7500 95.288	+0/-0.0008 +0/-0.020	2.5000 63.525	3.7498 95.282	3.7507 95.305	.0010 0.025	.1875 4.764	.0938 2.382	1,700	20800 92,518	117000 520,416	3.8 1.72
RD 24	3.0000 76.230	+0/-0.0006 +0/-0.015	4.5000 114.345	+0/-0.0008 +0/-0.020	2.7500 69.878	4.4998 114.340	4.5007 114.363	.0010 0.025	.1875 4.764	.0938 2.382	1,400	29400 130,771	144500 642,736	6.14 2.78
RD 28	3.5000 88.935	+0/-0.0008 +0/-0.020	5.0000 127.050	+0/-0.0010 +0/-0.025	3.0000 76.230	5.0003 127.058	5.0011 127.078	.0015 0.038	.1875 4.764	.0938 2.382	1,250	34400 153,011	184900 822,435	7.54 3.42
RD 32	4.0000 101.640	+0/-0.0008 +0/-0.020	5.5000 139.755	+0/-0.0010 +0/-0.025	3.0000 76.230	5.5003 139.763	5.5011 139.783	.0015 0.038	.1875 4.764	.0938 2.382	1,100	34600 153,901	194600 865,581	8.29 3.76

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