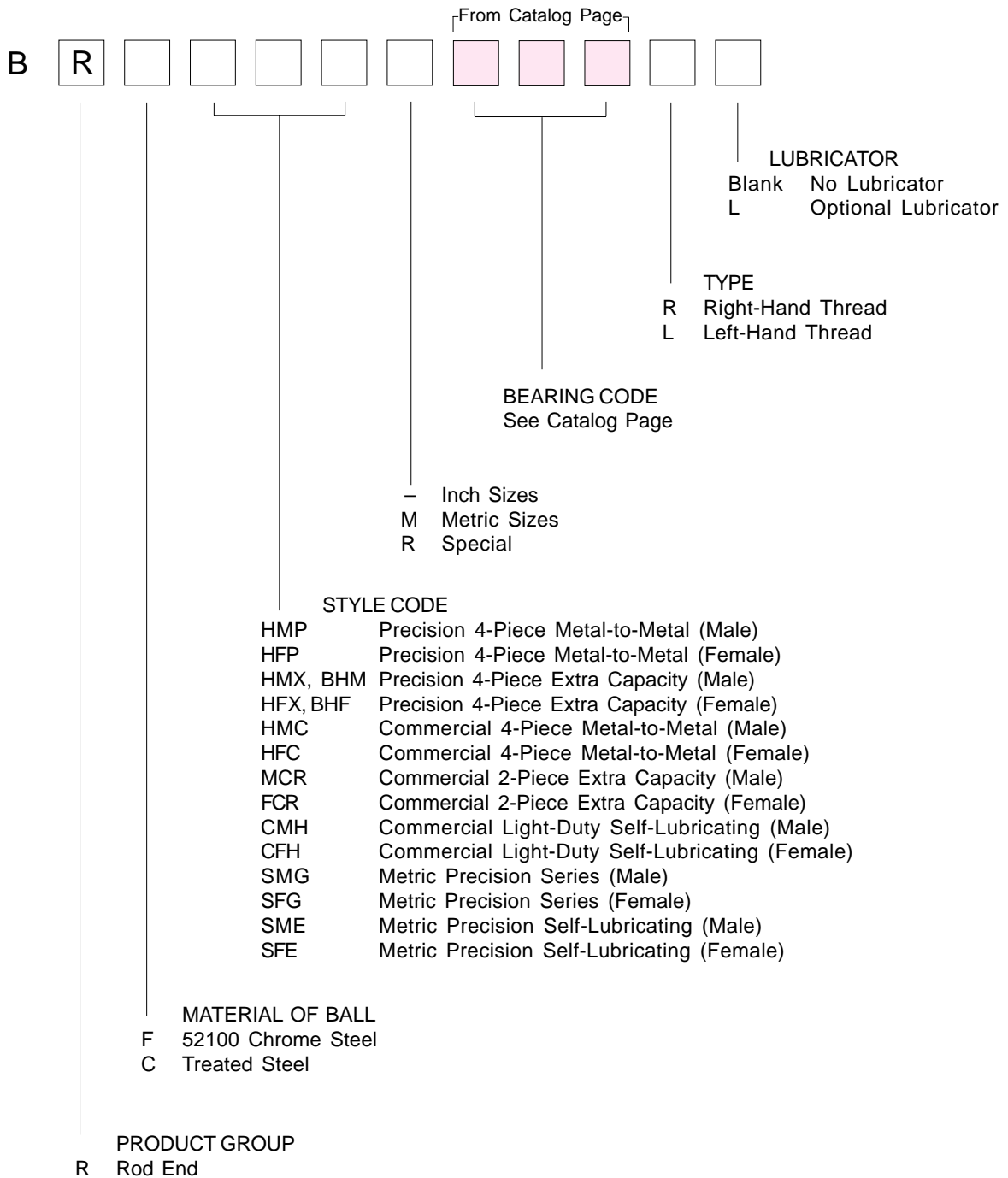




Part Numbering System

ROD ENDS

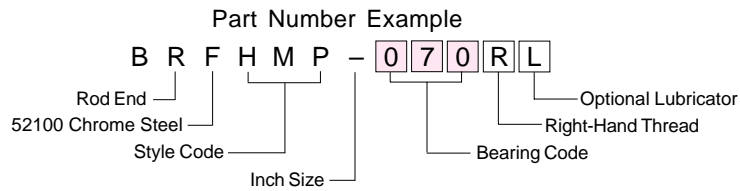
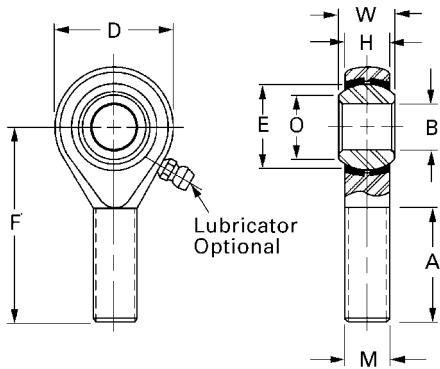


NOTE: X = Filler character.



Male Series PRECISION ROD ENDS

- Four-Piece
- Metal-to-Metal
- Brass Insert*
- Coated Carbon Steel Outer Member
- 52100 Alloy Steel Chrome Plated Ball



Bearing Code	B Bore +.0015 -.0005	W Ball Width +.000 -.005	H Housing Width ±.005	D Head Diameter ±.010	F Length to Center of Ball ±.031	A Thread Length +.062 -.031	M Thread Size UNF-3A	E Ball Diameter REF	O Ball Flat Diameter REF	Max. Static Radial Load lbs	Approx. Weight lbs
030	.1900	.312	.250	.625	1.250	.750	.1900-32	.437	.306	900	.03
040	.2500	.375	.281	.750	1.562	1.000	.2500-28	.515	.353	1700	.05
050	.3125	.437	.344	.875	1.875	1.250	.3125-24	.625	.447	2500	.08
060	.3750	.500	.406	1.000	1.938	1.250	.3750-24	.718	.516	4000	.12
070	.4375	.562	.437	1.125	2.125	1.375	.4375-20	.812	.586	5000	.17
080	.5000	.625	.500	1.312	2.438	1.500	.5000-20	.937	.698	7000	.26
100	.6250	.750	.562	1.500	2.625	1.625	.6250-18	1.125	.839	8050	.41
120	.7500	.875	.687	1.750	2.875	1.750	.7500-16	1.312	.978	11300	.64
*160	1.0000	1.375	1.000	2.750	4.125	2.125	1.2500-12	1.875	1.269	28400	2.25

NOTE: X = Filler character.

* Size 160 has a one-piece Carbon Steel Race.

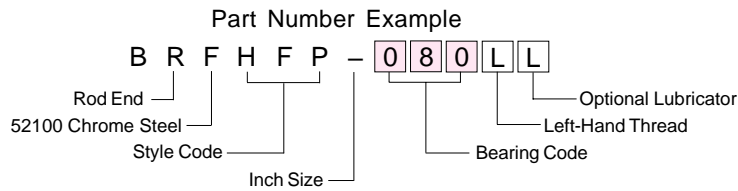
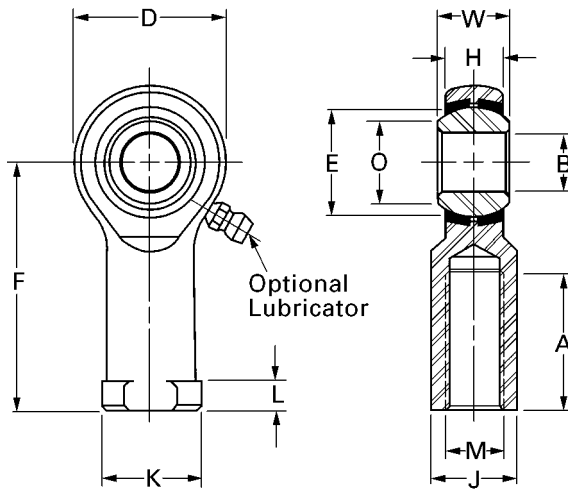
"D", "H" tolerance +.030, -.010

See Technical Section for additional design options.



Female Series PRECISION ROD ENDS

- Four-Piece
- Metal-to-Metal
- Brass Insert*
- Coated Carbon Steel Outer Member
- 52100 Alloy Steel Chrome Plated Ball



Bearing Code	B Bore +.0015 -.0005	W Ball Width +.000 -.005	H Housing Width ±.005	D Head Diameter ±.010	F Length to Center of Ball ±.031	A Thread Length +.062 -.031	M Thread Size UNF-3B	E Ball Dia. REF	O Ball Flat Dia. REF	J Across Wrench Flats ±.010	K ±.010	L ±.010	Max. Static Radial Load lbs	Approx. Weight lbs
030	.1900	.312	.250	.625	1.062	.562	.1900-32	.437	.306	.312	.406	.187	1850	.03
040	.2500	.375	.281	.750	1.312	.750	.2500-28	.515	.353	.375	.468	.187	2700	.05
050	.3125	.437	.344	.875	1.375	.750	.3125-24	.625	.447	.437	.500	.187	3350	.08
060	.3750	.500	.406	1.000	1.625	.937	.3750-24	.718	.516	.562	.687	.250	4450	.12
070	.4375	.562	.437	1.125	1.812	1.062	.4375-20	.812	.586	.625	.750	.250	5350	.17
080	.5000	.625	.500	1.312	2.125	1.187	.5000-20	.937	.698	.750	.875	.250	7400	.26
100	.6250	.750	.562	1.500	2.500	1.500	.6250-18	1.125	.839	.875	1.000	.312	8050	.41
120	.7500	.875	.687	1.750	2.875	1.750	.7500-16	1.312	.978	1.000	1.125	.312	11300	.64
*160	1.0000	1.375	1.000	2.750	4.125	2.125	1.2500-12	1.875	1.275	1.500	1.625	.437	28400	2.25

NOTE: X = Filler character.

* Size 160 has a one-piece Carbon Steel Race.

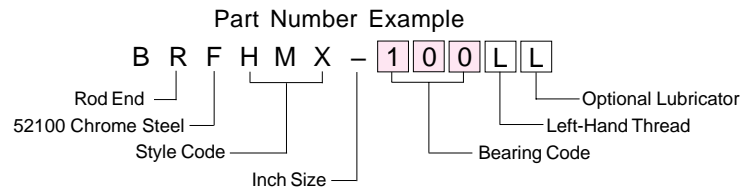
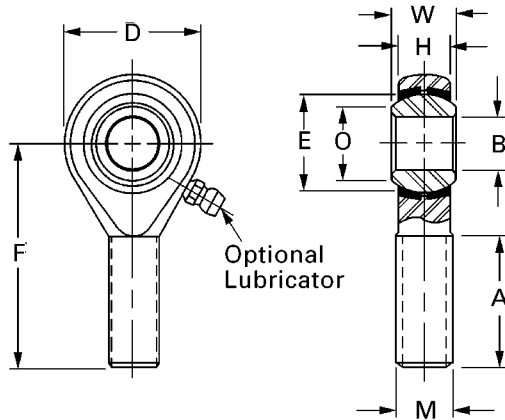
"D", "H" tolerance +.030, -.010

"J", "K", "L" tolerance ±.015



Extra Capacity Male Series PRECISION ROD ENDS

- Four-Piece
- Metal-to-Metal
- Copper Alloy Insert
- Heat Treated*
- Magnetic Particle Inspected
- Outer Member 4130 or 4340 Alloy Steel
- 52100 Alloy Steel Chrome Plated Ball



Bearing Code	B Bore +.0015 -.0005	W Ball Width +.000 -.005	H Housing Width ±.005	D Head Diameter ±.010	F Length to Center of Ball ±.010	A Thread Length +.062 -.031	M Thread Size UNF-3A	E Ball Diameter REF	O Ball Flat Diameter REF	Max. Static Radial Load		Approx. Weight lbs
										With Lubricator	Without Lubricator	
040	.2500	.375	.281	.750	1.562	1.000	.3125-24	.515	.353	3260	6680	.06
050	.3125	.437	.344	.875	1.875	1.250	.3750-24	.625	.447	4920	8410	.09
060	.3750	.500	.406	1.000	1.938	1.250	.4375-20	.718	.516	7240	11160	.13
070	.4375	.562	.437	1.125	2.125	1.375	.5000-20	.812	.586	7620	13660	.18
080	.5000	.625	.500	1.312	2.438	1.500	.6250-18	.937	.698	11920	19340	.30
100	.6250	.750	.562	1.500	2.625	1.625	.7500-16	1.125	.839	13940	21080	.46
120	.7500	.875	.687	1.750	2.875	1.750	.8750-14	1.312	.978	21570	29800	.72

B R F B H M - 0 8 0 R L

Bearing Code	B Bore +.0015 -.0005	W Ball Width +.000 -.005	H Housing Width ±.005	D Head Diameter ±.010	F Length to Center of Ball ±.010	A Thread Length +.062 -.031	M Thread Size UNF-3A	E Ball Diameter REF	O Ball Flat Diameter REF	Max. Static Radial Load	Approx. Weight lbs
										Without Lubricator	
040	.2500	.375	.281	.750	1.562	1.000	.2500-28	.515	.353	4290	.05
050	.3125	.437	.344	.875	1.875	1.250	.3125-24	.625	.447	6880	.08
060	.3750	.500	.406	1.000	1.938	1.250	.3750-24	.718	.516	10500	.12
070	.4375	.562	.437	1.125	2.125	1.375	.4375-20	.812	.586	13660	.17
080	.5000	.625	.500	1.312	2.438	1.500	.5000-20	.937	.698	19340	.26
100	.6250	.750	.562	1.500	2.625	1.625	.6250-18	1.125	.839	21080	.41
120	.7500	.875	.687	1.750	2.875	1.750	.7500-16	1.312	.978	29800	.64

NOTE: X = Filler character.

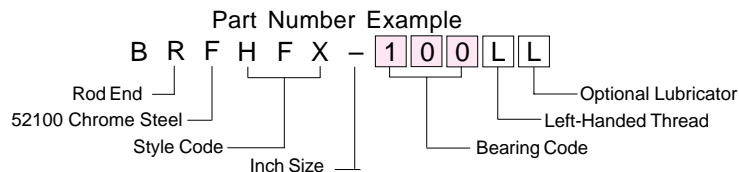
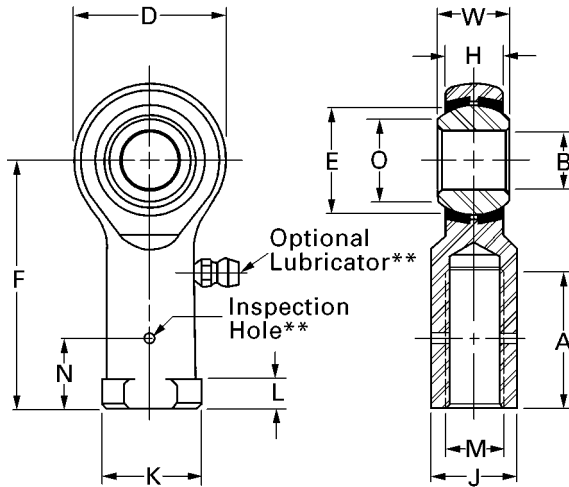
* Parts are designed to be mated with heat treated shafts.

See Technical Section for additional design options.



Extra Capacity Female Series PRECISION ROD ENDS

- Four-Piece
- Metal-to-Metal
- Copper Alloy Insert
- Heat Treated*
- Magnetic Particle Inspected
- Outer Member 4130 or 4340 Alloy Steel
- 52100 Alloy Steel Chrome Plated Ball



Bearing Code	B Bore +.0015 -.0005	W Ball Width +.000 -.005	H Housing Width ±.005	D Head Diameter ±.010	F Length to Center of Ball ±.010	A Thread Length +.062 -.031	M Thread Size UNF-3B	E Ball Dia. REF	O Ball Flat Dia. REF	J Across Wrench Flats ±.010	K ±.010	N ±.020	L ±.010	Max. Static Radial Load		Approx. Weight lbs
														With Lubr.	Without Lubr.	
														lbs		
040	.2500	.375	.281	.750	1.312	.750	.2500-28	.515	.355	.375	.468	.312	.187	3260	6680	.06
050	.3125	.437	.344	.875	1.375	.750	.3125-24	.625	.447	.437	.500	.406	.187	4920	8410	.08
060	.3750	.500	.406	1.000	1.625	.937	.3750-24	.718	.517	.562	.687	.469	.250	7240	11160	.14
070	.4375	.562	.437	1.125	1.812	1.062	.4375-20	.812	.586	.625	.750	.531	.250	7620	13660	.18
080	.5000	.625	.500	1.312	2.125	1.187	.5000-20	.937	.698	.750	.875	.594	.250	11920	19340	.29
100	.6250	.750	.562	1.500	2.500	1.500	.6250-18	1.125	.839	.875	1.000	.750	.312	13940	21080	.43
120	.7500	.875	.687	1.750	2.875	1.750	.7500-16	1.312	.978	1.000	1.125	.875	.312	21570	29800	.64

B R F B H F - 0 7 0 R L

Bearing Code	B Bore +.0015 -.0005	W Ball Width +.000 -.005	H Housing Width ±.005	D Head Diameter ±.010	F Length to Center of Ball ±.010	A Thread Length +.062 -.031	M Thread Size UNF-3B	E Ball Dia. REF	O Ball Flat Dia. REF	J Across Wrench Flats ±.010	K ±.010	L ±.010	Max. Static Radial Load		Approx. Weight lbs
													Without Lubricator		
													lbs		
040	.2500	.375	.281	.750	1.312	.750	.2500-28	.515	.355	.375	.468	.187		6680	.06
050	.3125	.437	.344	.875	1.375	.750	.3125-24	.625	.447	.437	.500	.187		8410	.08
060	.3750	.500	.406	1.000	1.625	.937	.3750-24	.718	.517	.562	.687	.250		11160	.14
070	.4375	.562	.437	1.125	1.812	1.062	.4375-20	.812	.586	.625	.750	.250		13660	.18
080	.5000	.625	.500	1.312	2.125	1.187	.5000-20	.937	.698	.750	.875	.250		19340	.29
100	.6250	.750	.562	1.500	2.500	1.500	.6250-18	1.125	.839	.875	1.000	.312		21080	.43
120	.7500	.875	.687	1.750	2.875	1.750	.7500-16	1.312	.978	1.000	1.125	.312		29800	.64

NOTE: X = Filler character.

* Parts are designed to be mated with heat treated shaft.

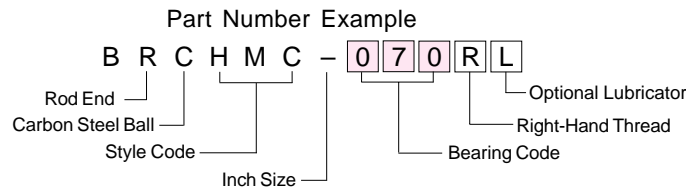
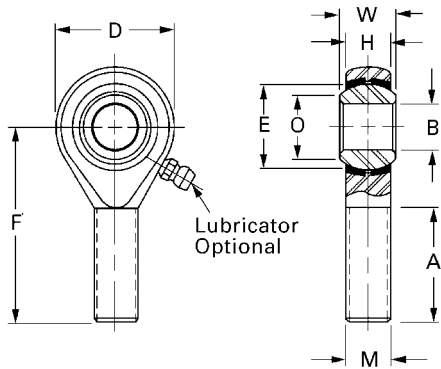
** Parts ordered without lubricator do not have inspection hole.

See Technical Section for additional design options.



Male Series COMMERCIAL ROD ENDS

- Four-Piece
- Metal-to-Metal
- Brass Insert
- Coated Carbon Steel Outer Member
- Carbon Steel, Case Hardened Ball



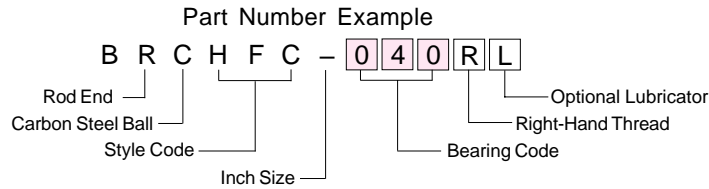
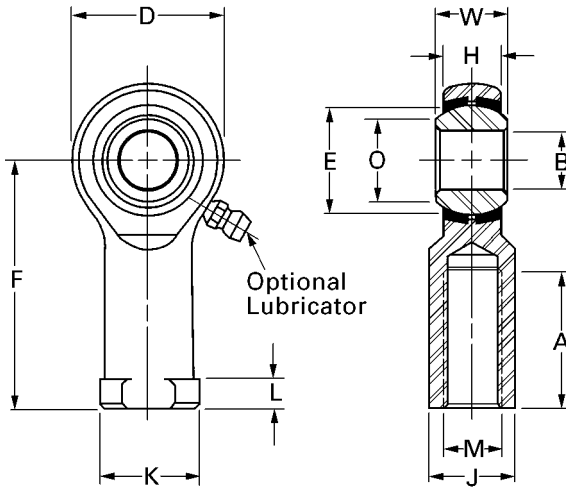
Bearing Code	B Bore +.0025 -.0005	W Ball Width ±.005	H Housing Width ±.010	D Head Diameter ±.031	F Length to Center of Ball ±.031	A Thread Length ±.062	M Thread Size UNF-3A	E Ball Diameter REF	O Ball Flat Diameter REF	Max. Static Radial Load lbs	Approx. Weight lbs
030	.1900	.312	.250	.625	1.250	.750	.1900-32	.437	.306	900	.03
040	.2500	.375	.281	.750	1.562	1.000	.2500-28	.515	.353	1700	.05
050	.3125	.437	.344	.875	1.875	1.250	.3125-24	.625	.447	2500	.08
060	.3750	.500	.406	1.000	1.938	1.250	.3750-24	.718	.516	4000	.12
070	.4375	.562	.437	1.125	2.125	1.375	.4375-20	.812	.586	5000	.17
080	.5000	.625	.500	1.312	2.438	1.500	.5000-20	.937	.698	7000	.25
100	.6250	.750	.562	1.500	2.625	1.625	.6250-18	1.125	.839	8050	.41
120	.7500	.875	.687	1.750	2.875	1.750	.7500-16	1.312	.978	11300	.64

NOTE: X = Filler character.



Female Series COMMERCIAL ROD ENDS

- Four-Piece
- Metal-to-Metal
- Brass Insert
- Coated Carbon Steel Outer Member
- Carbon Steel, Case Hardened Ball



Bearing Code	B Bore +.0025 -.0005	W Ball Width ±.005	H Housing Width ±.010	D Head Diameter ±.031	F Length to Center of Ball ±.031	A Thread Length ±.062	M Thread Size UNF-3B	E Ball Dia. REF	O Ball Flat Dia. REF	J Across Wrench Flats ±.010	K ±.010	L ±.010	Max. Static Radial Load lbs	Approx. Weight lbs
030	.1900	.312	.250	.625	1.062	.562	.1900-32	.437	.306	.312	.406	.187	1850	.03
040	.2500	.375	.281	.750	1.312	.750	.2500-28	.515	.353	.375	.468	.187	2700	.05
050	.3125	.437	.344	.875	1.375	.750	.3125-24	.625	.447	.437	.500	.187	3350	.08
060	.3750	.500	.406	1.000	1.625	.937	.3750-24	.718	.516	.562	.687	.250	4450	.12
070	.4375	.562	.437	1.125	1.812	1.062	.4375-20	.812	.586	.625	.750	.250	5350	.17
080	.5000	.625	.500	1.312	2.125	1.187	.5000-20	.937	.698	.750	.875	.250	7400	.26
100	.6250	.750	.562	1.500	2.500	1.500	.6250-18	1.125	.839	.875	1.000	.312	8050	.41
120	.7500	.875	.687	1.750	2.875	1.750	.7500-16	1.312	.978	1.000	1.125	.312	11300	.64

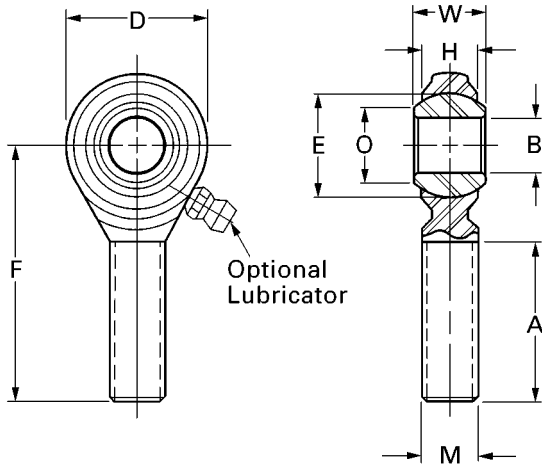
NOTE: X = Filler character.

See Technical Section for additional design options.

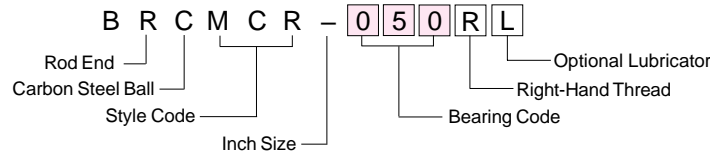


Extra Capacity Male Series COMMERCIAL ROD ENDS

- Two-Piece
- Metal-to-Metal
- Coated Carbon Steel Outer Member
- Carbon Steel, Case Hardened Ball



Part Number Example



Bearing Code	B Bore +.0025 -.0005	W Ball Width ±.005	H Housing Width ±.010	D Head Diameter ±.031	F Length to Center of Ball ±.031	A Thread Length ±.062	M Thread Size UNF-3A	E Ball Diameter REF	O Ball Flat Diameter REF	Max. Static Radial Load lbs	Approx. Weight lbs
030	.1900	.312	.250	.625	1.250	.750	.1900-32	.437	.306	950	.03
040	.2500	.375	.281	.750	1.562	1.000	.2500-28	.515	.353	2000	.05
050	.3125	.437	.344	.875	1.875	1.250	.3125-24	.625	.447	3000	.08
060	.3750	.500	.406	1.000	1.938	1.250	.3750-24	.718	.516	5000	.11
070	.4375	.562	.437	1.125	2.125	1.375	.4375-20	.812	.586	6500	.16
080	.5000	.625	.500	1.312	2.438	1.500	.5000-20	.937	.698	9000	.24
100	.6250	.750	.562	1.500	2.625	1.625	.6250-18	1.125	.839	10000	.40
120	.7500	.875	.687	1.750	2.875	1.750	.7500-16	1.312	.978	14000	.63

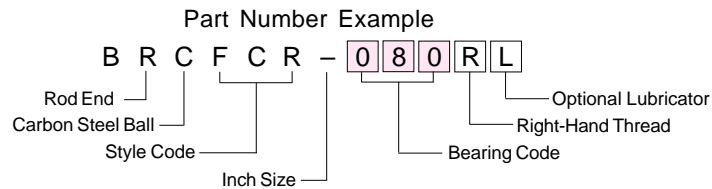
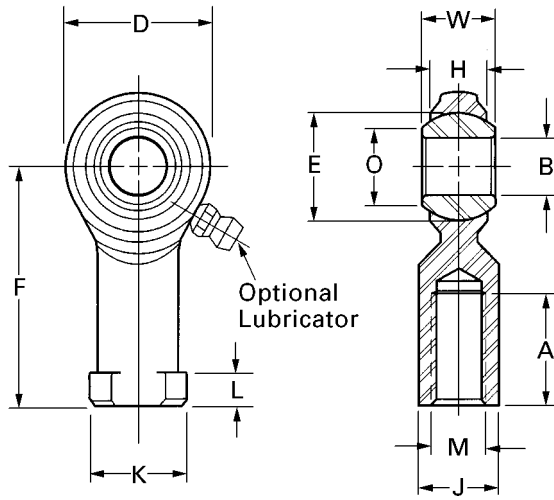
NOTE: X = Filler character.

See Technical Section for additional design options.



Extra Capacity Female Series COMMERCIAL ROD ENDS

- Two-Piece
- Metal-to-Metal
- Coated Carbon Steel Outer Member
- Carbon Steel, Case Hardened Ball



Bearing Code	B Bore +.0025 -.0005	W Ball Width ±.005	H Housing Width ±.010	D Head Dia. REF	F Length to Center of Ball REF	A Thread Length +.062 -.031	M Thread Size UNF-3B	E Ball Dia. REF	O Ball Flat Dia. REF	J Across Wrench Flats REF	K REF	L REF	Max. Static Radial Load lbs	Approx. Weight lbs
030	.1900	.312	.250	.625	1.062	.500	.1900-32	.437	.306	.312	.406	.187	2000	.03
040	.2500	.375	.281	.750	1.312	.625	.2500-28	.515	.355	.375	.468	.187	3200	.05
050	.3125	.437	.344	.875	1.375	.625	.3125-24	.625	.447	.437	.500	.187	3800	.08
060	.3750	.500	.406	1.000	1.625	.687	.3750-24	.718	.517	.562	.687	.250	5000	.12
070	.4375	.562	.437	1.125	1.812	.812	.4375-20	.812	.586	.625	.750	.250	6500	.17
080	.5000	.625	.500	1.312	2.125	.937	.5000-20	.937	.698	.750	.875	.250	9000	.26
100	.6250	.750	.562	1.500	2.500	1.187	.6250-18	1.125	.839	.875	1.000	.312	10000	.41
120	.7500	.875	.687	1.750	2.875	1.375	.7500-16	1.312	.978	1.000	1.125	.312	14000	.64

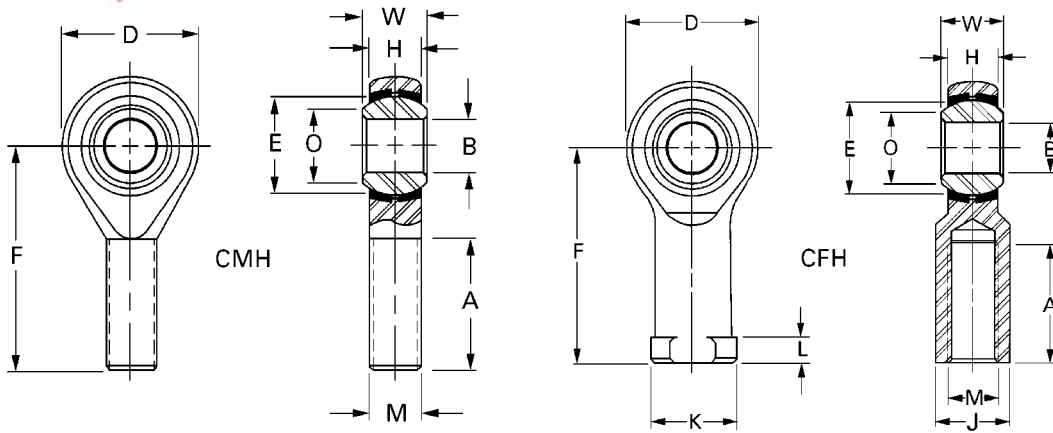
NOTE: X = Filler character.

See Technical Section for additional design options.

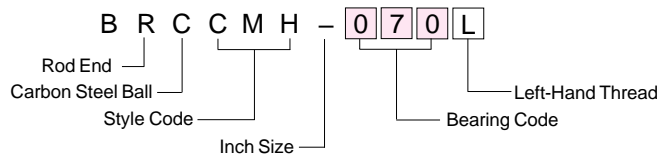


Self-Lubricating COMMERCIAL ROD ENDS

- Thermoplastic Race
- Coated Carbon Steel Outer Member*
- Carbon Steel, Case Hardened Ball
- Male and Female Series



Part Number Example



Bearing Code	B Bore +.0025 -.0005	W Ball Width ±.005	H Housing Width ±.010	D Head Diameter REF	F Length to Center of Ball REF	A Thread Length ±.062	M Thread Size UNF-3A	E Ball Diameter REF	O Ball Flat Diameter REF	Max. Static Radial Load lbs	Approx. Weight lbs
030	.1900	.313	.250	.625	1.250	.750	.1900-32	.437	.306	800	.03
040	.2500	.375	.281	.750	1.562	1.000	.2500-28	.515	.353	1060	.05
050	.3125	.437	.344	.875	1.875	1.250	.3125-24	.625	.447	1575	.08
060	.3750	.500	.406	1.000	1.938	1.250	.3750-24	.718	.516	2150	.12
070	.4375	.562	.437	1.125	2.125	1.375	.4375-20	.812	.586	2600	.17
080	.5000	.625	.500	1.312	2.438	1.500	.5000-20	.937	.698	3425	.26
100	.6250	.750	.562	1.500	2.625	1.625	.6250-18	1.125	.839	4625	.41
120	.7500	.875	.687	1.750	2.875	1.750	.7500-16	1.312	.978	6600	.64

B R C C F H - 0 6 0 L

Bearing Code	B Bore +.0025 -.0005	W Ball Width ±.005	H Housing Width ±.010	D Head Diameter REF	F Length to Center of Ball REF	A Thread Length ±.062	M Thread Size UNF-3B	E Ball Dia. REF	O Ball Flat Dia. REF	J Across Wrench Flats REF	K REF	L REF	Max. Static Radial Load lbs	Approx. Weight lbs
030	.1900	.313	.250	.625	1.062	.562	.1900-32	.437	.306	.312	.406	.187	800	.03
040	.2500	.375	.281	.750	1.312	.750	.2500-28	.515	.355	.375	.468	.187	1060	.05
050	.3125	.437	.344	.875	1.375	.750	.3125-24	.625	.447	.437	.500	.187	1575	.08
060	.3750	.500	.406	1.000	1.625	.937	.3750-24	.718	.517	.562	.687	.250	2150	.12
070	.4375	.562	.437	1.125	1.812	1.062	.4375-20	.812	.586	.625	.750	.250	2600	.17
080	.5000	.625	.500	1.312	2.125	1.187	.5000-20	.937	.698	.750	.875	.250	3425	.26
100	.6250	.750	.562	1.500	2.500	1.500	.6250-18	1.125	.839	.875	1.000	.312	4625	.41
120	.7500	.875	.687	1.750	2.875	1.750	.7500-16	1.312	.978	1.000	1.125	.312	6600	.64

NOTE: X = Filler character.

* Also available with 300 series Stainless Steel outer member.

See Technical Section for additional design options.