



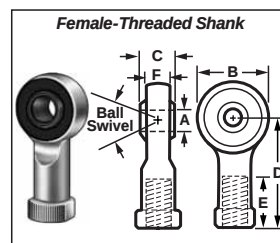
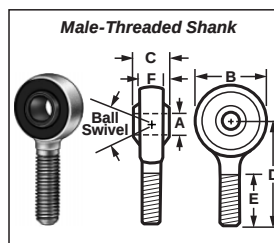
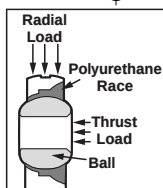
Thrust-Rated Ball Joint Rod Ends



In addition to static radial loads, these rod ends are rated for thrust loads (side loads) because they have a ball-socket design that retains the ball. All have a zinc-plated steel housing, steel ball, and injection-molded polyurethane race.

Rod ends have a temp. range of -40° to +176° F. They require no lubrication. For optimum performance, mount so the polyurethane side faces opposite the thrust-load direction (see illustration).

To Order: Please specify right- or left-hand shank threads.



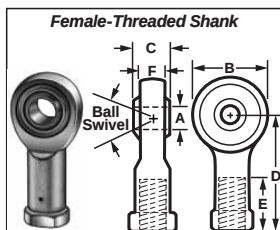
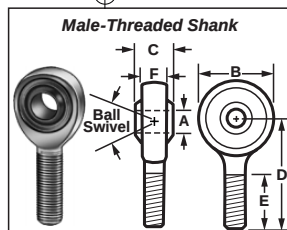
Shank Thread Size	Max. Ball Swivel	Right Hand		Left Hand		Static Radial Load Cap., lbs.	Thrust Load Cap., lbs.	Male-Threaded Shank			Female-Threaded Shank				
		(A)	(B)	(C)	(F)			(D)	(E)	Each	(D)	(E)	Each		
Inch Sizes															
1/4"-28	36°	1/4"	0.787"	0.354"	0.268"	2,206	662	1.417"	0.827"	8405K11	\$8.32	1.181"	0.551"	8405K31	\$7.77
5/16"-24	36°	5/16"	0.937"	0.474"	0.354"	3,972	1,545	1.654"	0.984"	8405K12	8.59	1.417"	0.670"	8405K32	8.18
3/8"-24	28°	3/8"	1.102"	0.551"	0.413"	4,854	1,765	1.890"	1.102"	8405K13	9.68	1.693"	0.827"	8405K33	8.82
Metric Sizes (DIN 648)															
M6×1	36°	6 mm	20 mm	9 mm	6.75 mm	2,206	662	36 mm	21 mm	8411K11	8.32	30 mm	14 mm	8411K31	7.82
M8×1.25	36°	8 mm	24 mm	12 mm	9 mm	3,972	1,545	42 mm	25 mm	8411K12	8.59	36 mm	17 mm	8411K32	8.18
M10×1.5	28°	10 mm	28 mm	14 mm	10.5 mm	4,854	1,765	48 mm	28 mm	8411K13	9.64	43 mm	21 mm	8411K33	9.18

Mil. Spec. Thrust-Rated Ball Joint Rod Ends



Designed to meet MIL-B-81935, these rod ends are rated for thrust loads (side loads) as well as for static radial loads. All have a heat- and chromate-treated, cadmium-plated, 4340 alloy steel housing that's inspected for magnetic particles; heat-treated, Type 440C stainless steel ball; and PTFE-lined, heat-treated, Type 17-4PH stainless steel race (lining is self-lubricating and meets MIL-B-81820). Rod ends require no lubrication.

To Order: Please specify right- or left-hand shank threads.



Shank Thread Size	Maximum Ball Swivel						Static Radial Load Cap., lbs.	Thrust Load Cap., lbs.	Male-Threaded Shank			Female-Threaded Shank			
		(A)	(B)	(C)	(F)	(D)			(E)	Each	(D)	(E)	Each		
5/16"-24	30°	3/16"	13/16"	7/16"	11/32"	2,360	1,000	19/16"	31/32"	2998K11	\$93.58	13/8"	3/4"	2998K31	\$101.23
5/16"-24	30°	1/4"	13/16"	7/16"	11/32"	4,860	1,000	19/16"	31/32"	2998K12	88.70	115/32"	3/4"	2998K32	98.56
5/16"-24	28°	5/16"	29/32"	7/16"	21/64"	7,180	1,100	17/8"	13/16"	2998K13	103.48				
3/8"-24	16°	3/8"	11/32"	1/2"	27/64"	8,550	1,660	115/16"	13/16"	2998K14	113.71	113/16"	1"	2998K34	118.61
1/2"-20	20°	7/16"	19/32"	9/16"	29/64"	12,000	1,850	21/8"	19/32"	2998K15	123.19	2"	11/8"	2998K35	132.31
1/2"-20	18°	1/2"	111/32"	5/8"	33/64"	19,500	2,040	27/16"	115/32"	2998K16	141.44	21/4"	11/4"	2998K36	150.56
5/8"-18	24°	5/8"	117/32"	3/4"	37/64"	21,900	2,430	25/8"	19/16"	2998K17	153.96	21/2"	13/8"	2998K37	162.77
3/4"-16	26°	3/4"	125/32"	7/8"	41/64"	29,300	2,810	27/8"	111/16"	2998K18	225.83	27/8"	11/8"	2998K38	234.07
7/8"-14	12°	7/8"	21/32"	7/8"	49/64"	34,500	3,320	33/8"	2"	2998K19	246.37	33/8"	17/8"	2998K39	254.58
11/4"-12	24°	1"	225/32"	13/8"	113/64"	80,300	4,340	41/8"	211/32"	2998K21	266.92	43/8"	21/8"	2998K41	275.12

Super-Swivel Ball Joint Rod Ends

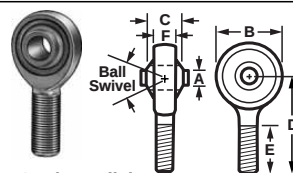


Why can these rod ends handle a higher degree of ball swivel than other rod ends? They have an oversized ball with "ears" that allows a larger rotation area. All have a heat-treated, zinc-plated, 4340 alloy steel housing; heat-treated, chrome-plated 52100-bearing steel ball; and PTFE-lined, heat-treated, zinc-plated 4130 steel race (lining meets SAE AS81820). They require no lubrication. All of these ball joint rod ends have a male-threaded shank.

To Order: Please specify right- or left-hand shank threads.



Shank Thread Size	Maximum Ball Swivel	(A)	(B)	(C)	(D)	(E)	(F)	Static Radial Load Cap., lbs.	Each
3/8"-24	46°	1/4"	1 1/32"	19/32"	1 15/16"	13/16"	17/64"	10,789	8398K11 \$56.77
7/16"-20	44°	3/8"	19/32"	13/16"	2 1/8"	19/32"	23/64"	11,781	8398K13 52.48
1/2"-20	42°	7/16"	1 11/32"	7/8"	2 7/16"	1 15/32"	29/64"	17,105	8398K14 63.15
5/8"-18	38°	1 1/2"	1 17/32"	15/16"	2 5/8"	1 9/16"	13/32"	23,720	8398K15 78.12
3/4"-16	38°	5/8"	1 25/32"	1 13/64"	2 7/8"	1 11/16"	37/64"	32,067	8398K16 99.04



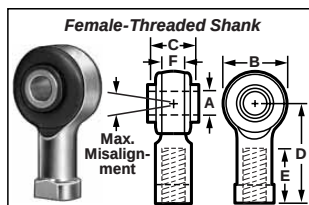
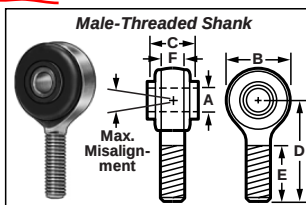
Neoprene-Isolated Rod Ends



These rod ends have a neoprene insert, which means no metal-on-metal sliding surfaces to cause noise or vibration. The insert is bonded to a nylon sleeve and has a steel mounting sleeve. Housing is plated steel. Temperature range is 32° to 180° F.

Note: These rod ends can handle minimal misalignment but are not designed to swivel.

To Order: Please specify right- or left-hand shank threads.



Shank Thread Size	Maximum Misalignment	Hand				Static Radial Load Cap., lbs.	Male-Threaded Shank			Female-Threaded Shank				
		(A)	(B)	(C)	(F)		(D)	(E)	Each	(D)	(E)	Each		
1/4"-28	3°	0.25"	0.94"	0.50"	0.25"	60	1.56"	0.93"	6088K112★	\$22.29	1.31"	0.62"	6088K21	\$22.29
3/8"-24	3°	0.38"	1.25"	0.75"	0.38"	140	1.94"	1.12"	6088K13	23.76	1.63"	0.75"	6088K22	23.76
1/2"-20	3°	0.50"	1.31"	0.98"	0.50"	270	2.44"	1.44"	6088K15	27.20	2.12"	1.19"	6088K23	27.20

★ Available in left-hand shank thread only.