



## Steel Spherical Rod Ends

Rod ends allow pivoting in the housing to compensate for misalignment in industrial applications. Metric sizes are available on Grainger.com.

Note: Not for automotive or aircraft use.

**Economical**—Feature a precision-ground, chrome-plated hardened 52100 steel spherical ball and 1045 carbon steel body.

**Stainless Steel**—Feature a precision-ground, hardened 440C stainless

steel ball and 300 Series stainless steel body with bonded PTFE fabric race. Excellent for low to moderate load applications where lubricating the parts is not desirable.

**Self-Lubricating**—Feature a precision-ground, chrome-plated hardened 52100 steel spherical ball, 1045 carbon steel body, and nylon/PTFE compound molded race. Ideal for low to moderate load applications where parts lubrication is not desirable.

Thread Size A	AA	E	Dimensions				N	ECONOMICAL			STAINLESS STEEL		
			G	H	J	Static Radial Load		Left Hand Item No.	Right Hand Item No.	Static Radial Load	Left Hand Item No.	Right Hand Item No.	
<b>Female Plain Ball</b>													
#10-32	0.190/0.192 in	0.625 in	1.062 in	0.5 in	1.375 in	0.312 in	2,079 lb	20F960	20F959	1,190 lb	20G025	20G024	
1/4-28	0.250/0.252 in	0.75 in	1.312 in	0.687 in	1.687 in	0.375 in	4,197 lb	20F962	20F961	2,165 lb	20G027	20G026	
3/8-24	0.3125/0.3145 in	0.875 in	1.375 in	0.687 in	1.813 in	0.437 in	5,110 lb	20F964	20F963	3,278 lb	20G029	20G028	
1/2-20	0.375/0.377 in	1.0 in	1.625 in	0.812 in	2.125 in	0.5 in	6,323 lb	20F966	20F965	4,527 lb	20G031	20G030	
5/8-18	0.4375/0.4395 in	1.125 in	1.812 in	0.937 in	2.375 in	0.562 in	7,897 lb	20F968	20F967	5,689 lb	20G033	20G032	
3/4-16	0.500/0.502 in	1.312 in	2.125 in	1.062 in	2.781 in	0.625 in	10,046 lb	20F970	20F969	7,352 lb	20G035	20G034	
3/4-16	0.625/0.627 in	1.5 in	2.5 in	1.375 in	3.25 in	0.75 in	11,385 lb	20F972	20F971	8,200 lb	20G037	20G036	
3/4-16	0.750/0.752 in	1.75 in	2.875 in	1.562 in	3.75 in	0.875 in	15,894 lb	20F974	20F973	11,595 lb	20G039	20G038	
<b>Male Plain Ball</b>													
#10-32	0.190/0.192 in	0.625 in	1.25 in	0.75 in	1.563 in	0.312 in	1,558 lb	20F976	20F975	1,190 lb	20G041	20G040	
1/4-28	0.250/0.252 in	0.75 in	1.562 in	1.0 in	1.937 in	0.375 in	2,835 lb	20F978	20F977	2,165 lb	20G043	20G042	
3/8-24	0.3125/0.3145 in	0.875 in	1.875 in	1.25 in	2.313 in	0.437 in	4,517 lb	20F980	20F979	3,278 lb	20G045	20G044	
1/2-20	0.375/0.377 in	1.0 in	1.938 in	1.25 in	2.438 in	0.5 in	6,323 lb	20F982	20F981	4,527 lb	20G047	20G046	
5/8-18	0.4375/0.4395 in	1.125 in	2.125 in	1.375 in	2.688 in	0.562 in	7,897 lb	20F984	20F983	5,689 lb	20G049	20G048	
3/4-16	0.500/0.502 in	1.312 in	2.438 in	1.5 in	3.094 in	0.625 in	10,046 lb	20F986	20F985	7,352 lb	20G051	20G050	
3/4-16	0.625/0.627 in	1.5 in	2.625 in	1.625 in	3.375 in	0.75 in	11,385 lb	20F988	20F987	8,200 lb	20G053	20G052	
3/4-16	0.750/0.752 in	1.75 in	2.875 in	1.75 in	3.75 in	0.875 in	15,894 lb	20F990	20F989	11,595 lb	20G055	20G054	
<b>Female Studded Ball (Female With Stud)</b>													
#10-32	0.5 in	0.5 in	0.625 in	1.062 in	0.5 in	1.375 in	2,079 lb	20F992	20F991	1,190 lb	20G057	20G056	
1/4-28	0.469 in	0.562 in	0.75 in	1.312 in	0.687 in	1.687 in	4,197 lb	20F994	20F993	2,165 lb	20G059	20G058	
3/8-24	0.532 in	0.687 in	0.875 in	1.375 in	0.687 in	1.813 in	5,110 lb	20F996	20F995	3,278 lb	20G061	20G060	
1/2-20	0.656 in	0.906 in	1.0 in	1.625 in	0.812 in	2.125 in	6,323 lb	20F998	20F997	4,527 lb	20G063	20G062	
5/8-18	0.688 in	1.062 in	1.125 in	1.812 in	0.937 in	2.375 in	7,897 lb	20G001	20F999	5,689 lb	20G065	20G064	
3/4-16	0.875 in	1.125 in	1.312 in	2.125 in	1.062 in	2.781 in	10,046 lb	20G003	20G002	7,352 lb	20G067	20G066	
3/4-16	1.0 in	1.5 in	1.5 in	2.5 in	1.375 in	3.25 in	11,385 lb	20G005	20G004	8,200 lb	20G069	20G068	
3/4-16	1.188 in	1.812 in	1.75 in	2.875 in	1.562 in	3.75 in	15,894 lb	20G007	20G006	11,595 lb	20G071	20G070	
<b>Male Studded Ball (Male With Stud)</b>													
#10-32	0.5 in	0.5 in	0.625 in	1.25 in	0.75 in	1.563 in	1,558 lb	20G009	20G008	1,190 lb	20G073	20G072	
1/4-28	0.469 in	0.562 in	0.75 in	1.562 in	1.0 in	1.937 in	2,835 lb	20G011	20G010	2,165 lb	20G075	20G074	
3/8-24	0.532 in	0.687 in	0.875 in	1.875 in	1.25 in	2.313 in	4,517 lb	20G013	20G012	—	—	20G076	
1/2-20	0.656 in	0.906 in	1.0 in	1.938 in	1.25 in	2.438 in	6,323 lb	20G015	20G014	4,527 lb	20G079	20G078	
5/8-18	0.688 in	1.062 in	1.125 in	2.125 in	1.375 in	2.688 in	7,897 lb	20G017	20G016	5,689 lb	20G081	20G080	
3/4-16	0.875 in	1.125 in	1.312 in	2.438 in	1.5 in	3.094 in	10,046 lb	20G019	20G018	7,352 lb	20G083	20G082	
3/4-16	1.0 in	1.5 in	1.5 in	2.625 in	1.625 in	3.375 in	11,385 lb	20G021	20G020	8,200 lb	20G085	20G084	
3/4-16	1.188 in	1.812 in	1.75 in	2.875 in	1.75 in	3.75 in	15,894 lb	20G023	20G022	—	—	20G086	
<b>SELF-LUBRICATING</b>													
Thread Size A	AA	E	Dimensions				N	Static Radial Load	Left Hand Item No.		Right Hand Item No.		
<b>Female Plain Ball</b>													
#10-32	0.190/0.192 in	0.625 in	1.062 in	0.562 in	1.375 in	0.312 in	—	—	—	20F894			
1/4-28	0.250/0.252 in	0.75 in	1.312 in	0.75 in	1.687 in	0.375 in	2,470 lb	20F897	20F896	20F898			
3/8-24	0.3125/0.3145 in	0.875 in	1.375 in	0.75 in	1.813 in	0.437 in	2,740 lb	20F899	20F897	20F898			
1/2-20	0.375/0.377 in	1.0 in	1.625 in	0.937 in	2.125 in	0.5 in	4,100 lb	20F902	20F901	20F902			
5/8-18	0.4375/0.4395 in	1.125 in	1.812 in	1.062 in	2.375 in	0.562 in	5,350 lb	20F904	20F903	20F904			
3/4-16	0.500/0.502 in	1.312 in	2.125 in	1.187 in	2.781 in	0.625 in	6,430 lb	20F906	20F905	20F906			
3/4-16	0.625/0.627 in	1.5 in	2.5 in	1.5 in	3.25 in	0.75 in	8,300 lb	20F908	20F907	20F908			
3/4-16	0.750/0.752 in	1.75 in	2.875 in	1.75 in	3.75 in	0.875 in	10,900 lb	20F910	20F909	20F910			
<b>Male Plain Ball</b>													
#10-32	0.190/0.192 in	0.625 in	1.25 in	0.75 in	1.563 in	0.312 in	1,210 lb	20F912	20F911	20F912			
1/4-28	0.250/0.252 in	0.75 in	1.562 in	1.0 in	1.937 in	0.375 in	2,470 lb	20F914	20F913	20F914			
3/8-24	0.3125/0.3145 in	0.875 in	1.875 in	1.25 in	2.313 in	0.437 in	2,740 lb	20F916	20F915	20F916			
1/2-20	0.375/0.377 in	1.0 in	1.938 in	1.25 in	2.438 in	0.5 in	4,210 lb	20F918	20F917	20F918			
5/8-18	0.4375/0.4395 in	1.125 in	2.125 in	1.375 in	2.688 in	0.562 in	5,350 lb	20F920	20F919	20F920			
3/4-16	0.500/0.502 in	1.312 in	2.438 in	1.5 in	3.094 in	0.625 in	6,430 lb	20F922	20F921	20F922			
3/4-16	0.625/0.627 in	1.5 in	2.625 in	1.625 in	3.375 in	0.75 in	8,300 lb	20F924	20F923	20F924			
3/4-16	0.750/0.752 in	1.75 in	2.875 in	1.75 in	3.75 in	0.875 in	10,900 lb	20F926	20F925	20F926			
<b>SELF-LUBRICATING</b>													
Thread Size A	B	C	Dimensions				J	Static Radial Load	Left Hand Item No.		Right Hand Item No.		
<b>Female Studded Ball (Female With Stud)</b>													
#10-32	0.5 in	0.5 in	0.625 in	1.062 in	0.562 in	1.375 in	1,210 lb	20F928	20F927	20F928			
1/4-28	0.469 in	0.562 in	0.75 in	1.312 in	0.75 in	1.687 in	2,470 lb	20F930	20F929	20F930			
3/8-24	0.532 in	0.687 in	0.875 in	1.375 in	0.75 in	1.813 in	2,740 lb	20F932	20F931	20F932			
1/2-20	0.656 in	0.906 in	1.0 in	1.625 in	0.937 in	2.125 in	4,100 lb	20F934	20F933	20F934			
5/8-18	0.688 in	1.062 in	1.125 in	1.812 in	1.062 in	2.375 in	5,350 lb	20F936	20F935	20F936			
3/4-16	0.875 in	1.125 in	1.312 in	2.125 in	1.187 in	2.781 in	6,430 lb	20F938	20F937	20F938			
3/4-16	1.0 in	1.5 in	1.5 in	2.5 in	1.5 in	3.25 in	8,300 lb	20F940	20F939	20F940			
3/4-16	1.188 in	1.812 in	1.75 in	2.875 in	1.75 in	3.75 in	10,900 lb	20F942	20F941	20F942			
<b>Male Studded Ball (Male With Stud)</b>													
#10-32	0.5 in	0.5 in	0.625 in	1.25 in	0.75 in	1.563 in	1,210 lb	20F944	20F943	20F944			
1/4-28	0.469 in	0.562 in	0.75 in	1.562 in	1.0 in	1.937 in	2,470 lb	20F946	20F945	20F946			
3/8-24	0.532 in	0.687 in	0.875 in	1.875 in	1.25 in	2.313 in	2,740 lb	20F948	20F947	20F948			
1/2-20	0.656 in	0.906 in	1.0 in	1.938 in	1.25 in	2.438 in	4,210 lb	20F950	20F949	20F950			
5/8-18	0.688 in	1.062 in	1.125 in	2.125 in	1.375 in	2.688 in	5,350 lb	20F952	20F951	20F952			
3/4-16	0.875 in	1.125 in	1.312 in	2.438 in	1.5 in	3.094 in	6,430 lb	20F954	20F953	20F954			
3/4-16	1.0 in	1.5 in	1.5 in	2.625 in	1.625 in	3.375 in	8,300 lb	20F956	20F955	20F956			
3/4-16	1.188 in	1.812 in	1.75 in	2.875 in	1.75 in	3.75 in	10,900 lb	20F958	20F957	20F958			