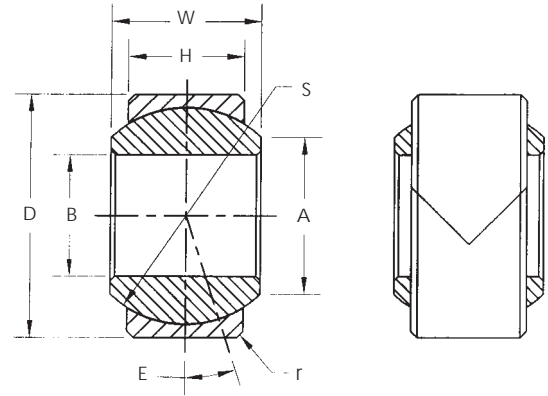


“F”

SMITH-ALIGN®

Spherical Bearings



General Information

The “F” Series Smith-Align® Bearings are manufactured for various uses in the Aerospace Industry. The unique design of this bearing is its two-piece outer ring which is “self-retained” around the ball. The two-piece ring is separated by “V” joints. The extreme precision fit of the ball and ring assures complete inner ball and outer ring contact. The bearing can be provided using a variety of materials with either or both components hardened.

The Smith-Align® Bearings are manufactured in various other special series. The table indicates a basic style using SAE 52100 material hardened to RC 58-60. Please consult our Engineering Department for special design needs.

Dimensional Data (inches)

SMITH Bearing® Number	B Bore Diameter +.0000 -.0005	D Outer Diameter +.0000 -.0005	W Overall Ball Width +.000 -.005	H Race Width +.010 -.000	A Flat Diameter +.010 -.005	S Ball Diameter (Ref)	r Chamfer +.015 -.000	E Max. Tilt Angle	Radial Load Capacity (lbs)
F3	.1900	.500	0.359	0.281	0.250	0.437	0.010	18°	10700
F3-1	.1900	.625	0.437	0.322	0.301	0.531	0.010	18°	16000
F4	.2500	.625	0.437	0.322	0.301	0.531	0.010	18°	16000
F5	.3125	.6875	0.437	0.322	0.401	0.593	0.010	18°	17500
F6	.3750	.8125	0.500	0.401	0.472	0.687	0.020	18°	25700
F7	.4375	.9375	0.562	0.437	0.542	0.781	0.020	18°	32100
F8	.5000	1.000	0.625	0.500	0.612	0.875	0.020	18°	41200
F10	.5625	1.125	0.687	0.531	0.726	1.000	0.020	18°	49500
F11	.6250	1.1875	0.750	0.562	0.753	1.062	0.020	18°	53800
F12	.7500	1.375	0.875	0.625	0.892	1.250	0.020	18°	74700
F14	.8750	1.625	0.875	0.750	1.062	1.375	0.030	18°	97700
F16	1.0000	2.125	1.375	1.000	1.275	1.875	0.030	18°	178200
F20	1.2500	2.375	1.500	1.125	1.460	2.093	0.047	18°	223500
F22	1.3750	2.5625	1.687	1.218	1.535	2.261	0.047	18°	263700
F24	1.5000	2.6875	1.687	1.218	1.693	2.390	0.047	18°	277800