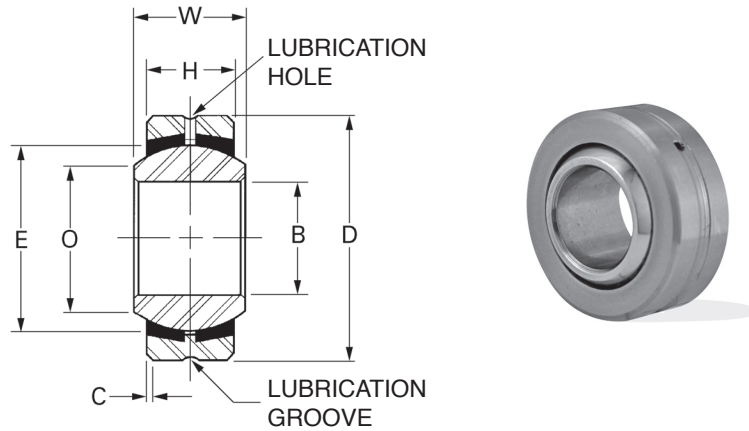




Four-Piece | Copper Alloy Insert PRECISION SPHERICAL BEARINGS

- Metal-to-Metal



Materials

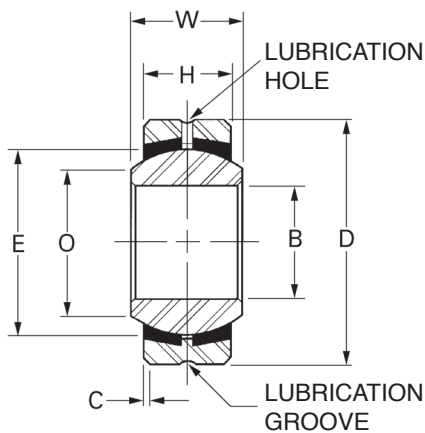
OUTER RACE	BALL	INSERT
4130 or 4340 Alloy Steel Heat-Treated, Coated For Corrosion Resistance	52100 Alloy Steel Heat-Treated Chrome Plated	Copper Alloy

Catalog Number	B Bore +.0000 -.0005	D Outside Dia. +.0000 -.0005	W Ball Width +.000 -.005	H* Housing Width +.000 -.005	C Chamfer +.015 -.000	E Ball Diameter Ref.	O Ball Flat Diameter Ref.	Max. Static Radial Load lbs.	Approx. Weight lbs.
BPFLSS-020	.1650	.4687	.250	.187	.020	.343	.235	2000	.01
BPFLSS-030	.1900	.5625	.281	.218	.020	.406	.293	2750	.02
BPFLSS-040	.2500	.6562	.343	.250	.022	.500	.364	4200	.02
BPFLSS-050	.3125	.7500	.375	.281	.022	.562	.419	5800	.03
BPFLSS-060	.3750	.8125	.406	.312	.032	.625	.475	7150	.04
BPFLSS-070	.4375	.9062	.437	.343	.032	.687	.530	8625	.05
BPFLSS-080	.5000	1.0000	.500	.390		.781	.600	11200	.07
BPFLSS-090	.5625	1.0937	.562	.437	.032	.875	.670	14000	.09
BPFLSS-100	.6250	1.1875	.625	.500		.968	.739	17700	.12
BPFLSS-120	.7500	1.4375	.750	.593		1.187	.920	25750	.21
BPFLSS-140	.8750	1.5625	.875	.703	.044	1.312	.980	33600	.27
BPFLSS-160	1.0000	1.7500	1.000	.797		1.500	1.118	37520	.38

*H tolerance across inserts is $\pm .015$

See technical section for additional design options.

- Metal-to-Metal



Materials

OUTER RACE	BALL	INSERT
Carbon Steel, Coated For Corrosion Resistance	52100 Alloy Steel Heat-Treated	Brass

Catalog Number	B Bore +.0000 -.0005	D Outside Dia. +.0000 -.0005	W Ball Width +.000 -.005	H* Housing Width +.000 -.005	C Chamfer +.015 -.000	E Ball Diameter Ref.	O Ball Flat Diameter Ref.	Max. Static Radial Load lbs.	Approx. Weight lbs.
BPFLSX-030	.1900	.6250	.281	.187		.406	.293	2960	.02
BPFLSX-040	.2500	.7500	.375	.281	.016	.515	.354	5245	.04
BPFLSX-050	.3125	.8750	.437	.313		.625	.447	6550	.05
BPFLSX-060	.3750	1.0000	.500	.375	.016	.718	.517	8605	.08
BPFLSX-070	.4375	1.1875	.562	.437	.032	.812	.586	11100	.12
BPFLSX-080	.5000	1.3125	.687	.531	.044	.937	.637	15600	.18
BPFLSX-100	.6250	1.5625	.875	.687	.044	1.187	.802	25700	.33
BPFLSX-120	.7500	2.2500	1.250	.937	.044	1.625	1.038	47600	.97
BPFLSX-160	1.0000	2.3750	1.125	.875	.062	1.750	1.345	48200	.94
BPFLSX-190	1.1875	2.6250	1.250	1.000	.085	2.000	1.562	63000	1.27
BPFLSX-240	1.5000	3.2500	1.500	1.250	.085	2.500	2.000	98000	2.38
BPFLSX-300	1.8750	4.0000	1.625	1.313	.125	3.000	2.521	123500	3.75

*H tolerance across inserts is $\pm .015$

See technical section for additional design options.

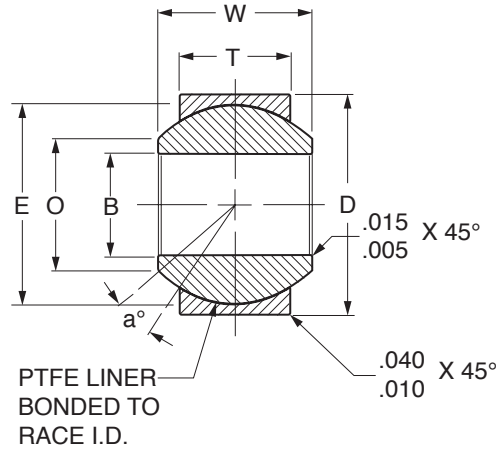


NEW

Four-Piece | Wide Series

PRECISION SPHERICAL BEARINGS

- Stainless Steel • Self-Lubricating PTFE Liner



Materials

BALL	RACE	LINER
440C Stainless Steel Heat-Treated	17-4 PH Stainless Steel Heat-Treated	PTFE Fabric

Catalog Number	B Dia. +.0000 -.0005	D Dia. +.0000 -.0005	W Width +.000 -.002	T Width +.005 -.005	O Ball Flat Dia. Ref.	E Ball Dia. Ref.	a° Mis. Ang. Min.	Load Ratings lbs.			Approx. Weight lbs.
								Static Limit		Dynamic Oscillating Radial Load	
								Radial lbs.	Axial lbs.		
BPFWSS-3T	.1900	.6250	.437	.327	.301	.531	15	2500	1770	4900	.031
BPFWSS-4T	.2500	.6250	.437	.327	.301	.531	15	5500	1770	4900	.031
BPFWSS-5T	.3125	.6875	.437	.317	.360	.593	14	9400	1640	6505	.035
BPFWSS-6T	.3750	.8125	.500	.406	.466	.687	8	13700	2630	8310	.060
BPFWSS-7T	.4375	.9375	.562	.442	.537	.781	10	20700	3650	11750	.080
BPFWSS-8T	.5000	1.0000	.625	.505	.607	.875	9	21400	4970	14950	.100
BPFWSS-9T	.5625	1.1250	.687	.536	.721	1.000	10	26600	5370	18100	.135
BPFWSS-10T	.6250	1.1875	.750	.567	.747	1.062	12	29000	6130	20250	.160
BPFWSS-12T	.7500	1.3750	.875	.630	.845	1.250	13	37000	7730	26200	.240
BPFWSS-14T	.8750	1.6250	.875	.755	.995	1.375	6	65200	10800	33600	.350
BPFWSS-16T	1.0000	2.1250	1.375	1.005	1.269	1.875	12	104000	19300	56250	.970

NOTE: Diameter **B** and **D** are concentric within .005 T.I.R.

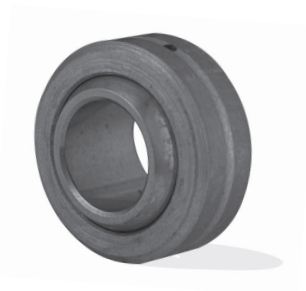
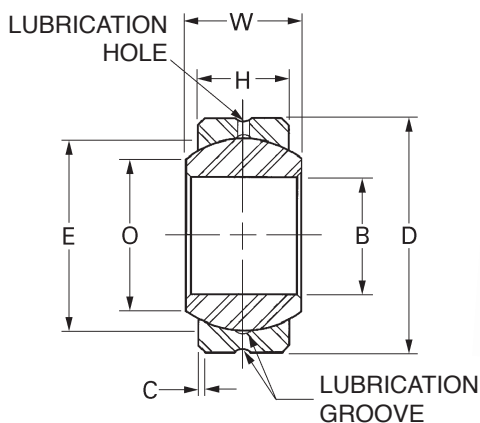
NO LOAD BREAKAWAY TORQUE

BORE DIAMETER	TORQUE
.1900	.5 to 5.0 lbs. in.
.2500 to .7500	1.0 to 5.0 lbs. in.
.8750 & 1.0000	2.0 to 8.0 lbs. in.



Two-Piece PRECISION SPHERICAL BEARINGS

• Metal-to-Metal • Alloy Steel



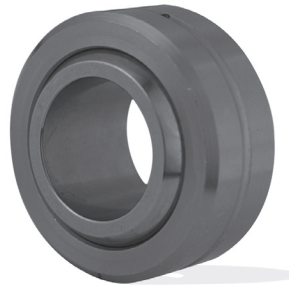
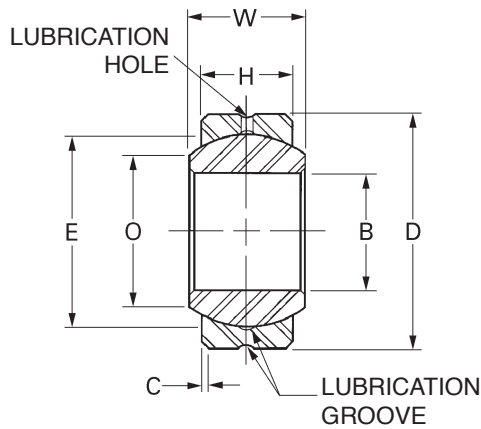
Materials

OUTER RACE	BALL
4130 or 4340 Alloy Steel Heat-Treated, Coated for Corrosion Resistance	52100 Alloy Steel Heat-Treated Chrome Plated

Catalog Number	B Bore +.0000 -.0005	D Outside Dia. +.0000 -.0005	W Ball Width +.000 -.005	H H Width ±.005	C Chamfer +.015 -.000	E Ball Dia. Ref.	O Ball Flat Dia. Ref.	Max. Static Radial Load lbs.	Approx. Weight lbs.
BPFLHA-020	.1650	.4687	.250	.187	.020	.343	.235	4400	.01
BPFLHA-030	.1900	.5625	.281	.218	.020	.406	.293	6480	.02
BPFLHA-040	.2500	.6562	.343	.250	.022	.500	.364	10000	.02
BPFLHA-050	.3125	.7500	.375	.281	.022	.562	.419	13900	.03
BPFLHA-060	.3750	.8125	.406	.312	.032	.625	.475	18750	.04
BPFLHA-070	.4375	.9062	.437	.343	.032	.687	.530	22300	.05
BPFLHA-080	.5000	1.0000	.500	.390		.781	.600	26900	.07
BPFLHA-090	.5625	1.0937	.562	.437	.032	.875	.670	36000	.09
BPFLHA-100	.6250	1.1875	.625	.500		.968	.739	48000	.12
BPFLHA-120	.7500	1.4375	.750	.593		1.187	.920	78000	.21
BPFLHA-140	.8750	1.5625	.875	.703	.044	1.312	.980	103000	.27
BPFLHA-160	1.0000	1.7500	1.000	.797		1.500	1.118	125000	.38

See technical section for additional design options.

- Metal-to-Metal



Materials

OUTER RACE	BALL
300 Series Stainless Steel	440C Stainless Steel Heat-Treated

Catalog Number	B Bore +.0000 -.0005	D Outside Dia. +.0000 -.0005	W Ball Width +.000 -.005	H Width ±.005	C Chamfer +.015 -.000	E Ball Dia. Ref.	O Ball Flat Dia. Ref.	Max. Static Radial Load lbs.	Approx. Weight lbs.
BPSLHS-020	.1650	.4687	.250	.187	.020	.343	.235	3200	.01
BPSLHS-030	.1900	.5625	.281	.218	.020	.406	.293	4400	.02
BPSLHS-040	.2500	.6562	.343	.250	.022	.500	.364	6700	.02
BPSLHS-050	.3125	.7500	.375	.281	.022	.562	.419	9200	.03
BPSLHS-060	.3750	.8125	.406	.312	.032	.625	.475	12400	.04
BPSLHS-070	.4375	.9062	.437	.343	.032	.687	.530	14900	.05
BPSLHS-080	.5000	1.0000	.500	.390		.781	.600	17900	.07
BPSLHS-090	.5625	1.0937	.562	.437	.032	.875	.670	23700	.09
BPSLHS-100	.6250	1.1875	.625	.500		.968	.739	32000	.12
BPSLHS-120	.7500	1.4375	.750	.593		1.187	.920	48000	.21
BPSLHS-140	.8750	1.5625	.875	.703	.044	1.312	.980	69000	.27
BPSLHS-160	1.0000	1.7500	1.000	.797		1.500	1.118	83000	.38

See technical section for additional design options.

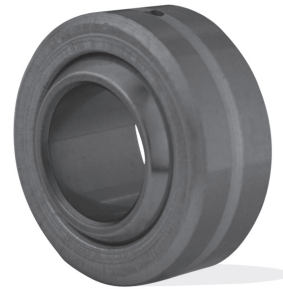
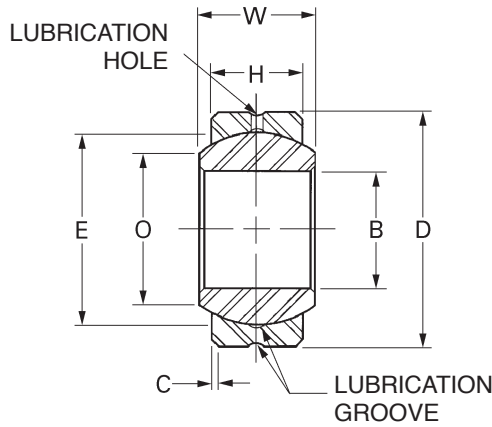


NEW

Two-Piece | Heavy-Duty

PRECISION SPHERICAL BEARING

- Metal-to-Metal • Alloy Steel • Optional Self-Lubricating Liner



Materials

OUTER RACE	BALL
Alloy Steel	52100 Steel
Heat-Treated	Heat-Treated
Oil-Coated	Chrome Plated

Catalog Number	B Bore +.0000 -.0005	D Outside Dia. +.0000 -.0005	W Ball Width +.000 -.005	H Width ±.005	C Chamfer +.015 -.000	E Ball Dia. Ref.	O Ball Flat Dia. Ref.	Max. Static Radial Load lbs.	Approx. Weight lbs.
BPFFKS-030	.1900	.5625	.281	.218	.020	.406	.293	5400	.014
BPFFKS-040	.2500	.6562	.343	.250	.022	.500	.364	8400	.022
BPFFKS-050	.3125	.7500	.375	.281	.022	.562	.419	11600	.035
BPFFKS-060	.3750	.8125	.406	.312	.032	.625	.475	15600	.038
BPFFKS-070	.4375	.9062	.437	.343	.032	.687	.530	22300	.047
BPFFKS-080	.5000	1.0000	.500	.390	.032	.781	.600	26900	.065
BPFFKS-090	.5625	1.0937	.562	.437	.032	.875	.670	36000	.086
BPFFKS-100	.6250	1.1875	.625	.500	.032	.968	.739	40000	.110
BPFFKS-120	.7500	1.4375	.750	.593	.044	1.187	.920	78000	.204
BPFFKS-140	.8750	1.5625	.875	.703	.044	1.312	.980	86000	.263
BPFFKS-160	1.0000	1.7500	1.000	.797	.044	1.500	1.118	104000	.386

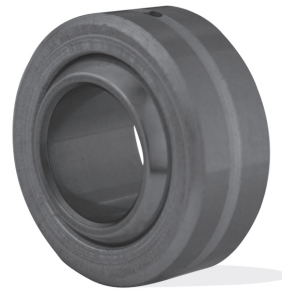
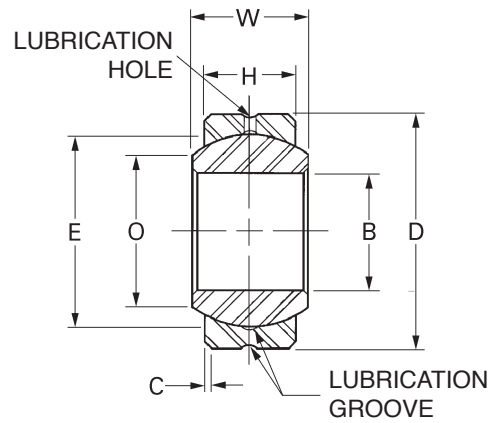
- NOTES:** 1. Spherical Bearings available with self-lubricating liner.
 Add "T" to the end of catalog number. Example: **BPFFKS-060T**
 2. Bearings with liners have no lubrication hole or grooves in race.

See technical section for additional design options.



Two-Piece COMMERCIAL SPHERICAL BEARINGS

• Metal-to-Metal • Carbon Steel • Optional Self-Lubricating Liner



Materials

OUTER RACE	BALL
Low-Carbon Steel Oil-Coated	52100 Steel Heat-Treated Hard Chrome Plated

Catalog Number	B Bore +.0025 -.0005	D Outside Dia. +.0000 -.0007	W Ball Width ±.005	H Width ±.010	C Chamfer +.015 -.000	E Ball Dia. Ref.	O Ball Flat Dia. Ref.	Max. Static Radial Load lbs.	Approx. Weight lbs.
BPFCOM-030	.1900	.5625	.281	.218	.020	.406	.293	3250	.02
BPFCOM-040	.2500	.6562	.343	.250	.022	.500	.364	4900	.02
BPFCOM-050	.3125	.7500	.375	.281		.562	.419	6450	.03
BPFCOM-060	.3750	.8125	.406	.312	.032	.625	.475	8250	.04
BPFCOM-070	.4375	.9062	.437	.343		.687	.530	10200	.05
BPFCOM-080	.5000	1.0000	.500	.390		.781	.600	13600	.07
BPFCOM-090	.5625	1.0937	.562	.437	.032	.875	.670	15900	.09
BPFCOM-100	.6250	1.1875	.625	.500		.968	.739	21000	.12
BPFCOM-120	.7500	1.4375	.750	.593		1.187	.920	30000	.21
BPFCOM-140	.8750	1.5625	.875	.703	.044	1.312	.980	41100	.27
BPFCOM-160	1.0000	1.7500	1.000	.797		1.500	1.118	54700	.38

- NOTES:** 1. Spherical Bearings available with self-lubricating liner.
Add "T" to the end of catalog number. Example: **BPFCOM-100T**
2. Bearings with liners have no lubrication hole or grooves in race.

See technical section for additional design options.