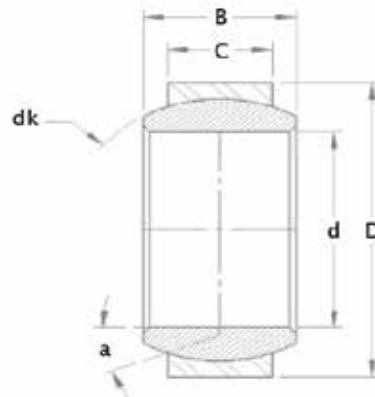


## STATIC LOAD DATA

### BALL & RING SPHERICAL BEARINGS

#### MATERIAL SINTERED IRON

- All load data was obtained by statically testing a large sample size of bearings of each specific size.
- The static load limit is the main value that was obtained by testing. It is the force it takes for the bearing ball's bore diameter to change 1/2 total tolerance allowed.
- The bore diameter is within the tolerance up to this force. It is not recommended to exceed this value.
- The static load rating is the max force the ball & ring assembly can take before failure due to either the ball cracking or permanent set created in the ball causing it to lock in place.
- Due to the wide variety of scenarios and by-use cases of the bearing assemblies, a dynamic load rating cannot be found directly.
- The dynamic load rating shown was obtained by taking 1/3 the value of the static load rating.



#### IMPERIAL UNITS

Bearing Model	Nom. Bore Dia.	Min. Bore Dia.	Max Bore Dia.	Ball Dia.	Mounting Hole Dia.	Ball Height	Ring Height	Max Misalignment Rotation Angle	Dynamic Load Rating	Static Load Rating	Static Load Limit	Mass
	<b>d(in)</b>			<b>Dk (in)</b>	<b>D (in)</b>	<b>B (in)</b>	<b>C (in)</b>	<b>a (deg.)</b>	<b>CD(lbf)</b>	<b>CS (lbf)</b>	<b>Pmax Limit (lbf)</b>	<b>m (lbm)</b>
HB												
HB1205P	5/16"	0.3130	0.3145	0.7505	0.8750	0.5000	0.3120	40	2614	7842	5487	0.039
HB1206P	3/8"	0.3755	0.3770	0.7505	0.8750	0.5000	0.3120	35	2902	8705	6268	0.037



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Bearing Model	Nom. Bore Dia.	Min. Bore Dia.	Max Bore Dia.	Ball Dia.	Mounting Hole Dia.	Ball Height	Ring Height	Max Mis-	Dynam-ic Load Rating	Static Load Rating	Static Load Limit	Mass
	<b>d(in)</b>			<b>Dk (in)</b>	<b>D (in)</b>	<b>B (in)</b>	<b>C (in)</b>	<b>a (deg.)</b>	<b>CD(lbf)</b>	<b>CS (lbf)</b>	<b>Pmax Limit (lbf)</b>	<b>m (lbm)</b>
HD												
HDW8	1/2"	0.5005	0.5020	1.1885	1.3215	0.7500	0.5310	38	5823	17470	10821	0.197
HDW10	5/8"	0.6255	0.6270	1.1885	1.3125	0.7500	0.5310	31	5067	15200	9530	0.175
HDW12	3/4"	0.7505	0.7520	1.1885	1.3125	0.6250	0.5310	24	5696	17088	10346	0.107
HDW14	7/8"	0.8755	0.8770	1.1885	1.3125	0.6250	0.5310	15	5390	16169	9492	0.073
HE												
HE1508P	1/2"	0.5005	0.5020	1.005	1.1250	0.5000	0.3430	39	3557	10670	6344	0.091
HE1510P	5/8"	0.6255	0.6270	1.0005	1.1250	0.5000	0.3430	31	3480	10439	6044	0.077
HE1512P	3/4"	0.7505	0.7520	1.0005	1.1250	0.5000	0.3430	21	5032	15096	8788	0.059
HF												
HF4214P	7/8"	0.8755	0.8770	1.4960	1.6875	1.0000	0.6880	26	5953	17860	12408	0.349
HF4216P	1"	1.0010	1.0030	1.4960	1.6875	1.0000	0.6880	20	8033	24100	17133	0.301