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Inch
0 1

SDP/SI offers inch and metric maintenance-free self-aligning bearings that are low cost and easy to install.
See Series S99GSB-… and S99GSBM… .

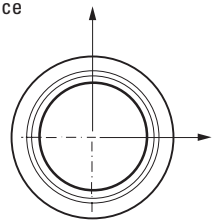
Injection molded from high-performance plastics, these bearings are used in various applications where lubricated metal bearings are not suitable. They are lightweight, vibration dampening and provide excellent performance in water, chemicals, and dusty environments.

Applications:
Where ease of assembly is required
Small installation space
Harsh environments

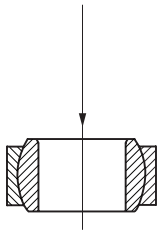
Operating temperature range:
-22°F to +176°F (-30°C to +80°C)

Two-Part Plastic Spherical Bearing
The spherical ball is made of wear-resistant L280 polymer and the housing is made of shock-resistant reinforced plastic. These bearings can operate at speeds up to 100 ft/min (30.48 m/min) due to the low friction coefficient. 80% lighter than steel, they have a high strength-to-weight ratio and long service life. The pivoting capability offers many design advantages and simplified assembly.

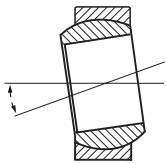
Advantages:
Maintenance free
No lubrication
Vibration dampening
Excellent wear resistance
Corrosion resistant
Lightweight
Strong and durable



Compressive Strength
Radial



Compressive Strength
Axial



Pivot Angle

Installation
For successful operation it is important that bearings are installed properly. The bearings are oversized before press fitting and will not meet listed specifications. Only after press fitting should measurement testing be done.

Bearings should be press fit into the recommended steel housing bore. Bearing should NEVER be hammered into place. Since pivoting allows for misalignment exact orientation of the bearing housing is not critical. Once installed into the housing bore, the inner diameter adjusts to meet the tolerances specified. For optimal performance it is important to follow the recommended specifications for the housing bore (H7) and shaft sizes (h7).

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FOR SHAFT DIAMETERS: 3/16 - 1/2
SELF ALIGNING
EASY TO INSTALL
LOW COST

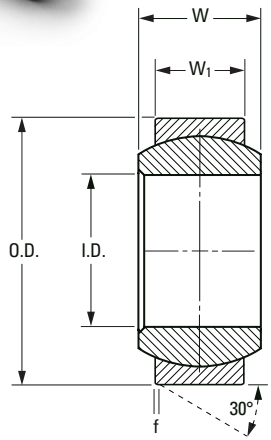
MATERIAL:
Housing - igumid G
Ball - L280 Polymer

OPERATING TEMPERATURE:
-22°F to +176°F

FEATURES:
Maintenance free
Chemical and UV resistant
Lightweight
Durable

SPECIFICATIONS:
I.D. After Press Fit: .1900 +.0027/+.0008
.2500 to .3750 +.0033/+.0010
.4375 & .5000 +.0040/+.0013

For optimal performance adhere to the specifications for housing bores and recommended shaft sizes. Press fit bearings are meant to be oversized before being press fit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances.



INCH COMPONENT

Catalog Number	I.D.	O.D.	Width W	Width W_1	Max. Pivot Angle	Max. Torque for the Assembly lbf ft.
S99GSB-030905	.1900	.5625	.312	.218	34°	3.69
S99GSB-041006	.2500	.6562	.375	.250	30°	7.37
S99GSB-051207	.3125	.7500	.437	.281	29°	8.85
S99GSB-061308	.3750	.8125	.500	.312	25°	14.75
S99GSB-071509	.4375	.9375	.562	.343		22.13
S99GSB-081710	.5000	1.0625	.625	.390		25.82

INCH COMPONENT

Catalog Number (Ref.)	Max. Static Load Radial lbs	Max. Static Load Axial lbs	Housing Bore Max.	Housing Bore Min.	Shaft Size Max.	Shaft Size Min.	f	Weight oz.
S99GSB-030905	225	34	.5630	.5625	.1900	.1888	.3	.042
S99GSB-041006	337	56	.6568	.6562	.2500	.2485		.060
S99GSB-051207	450	79	.7509	.7500	.3125	.3110		.092
S99GSB-061308	629	90	.8134	.8125	.3750	.3735	.5	.116
S99GSB-071509	843	101	.9382	.9375	.4375	.4358		.173
S99GSB-081710	955	112	1.0632	1.0625	.5000	.4983		.250

NOTE: For housing bores: H7
For shaft sizes: h7