

Spherical Plain Bearing



Spherical Plain Bearings are self-aligning spherical plain bushings that have inner and outer rings with spherical sliding surfaces, and can take a large radial load and a bi-directional axial load at the same time.

There are many types of Spherical Plain Bearings, but they are basically divided into steel-on-steel types and maintenance-free types according to the kind of sliding surfaces.

Steel-on-steel Spherical Plain Bearings have inner and outer rings of high carbon chromium bearing steel, of which sliding surfaces are phosphate-treated and then dry-coated with molybdenum disulfide (MoS₂). They can, therefore, operate with low torque, and have excellent wear resistance and large load capacity.

Spherical Plain Bearings are especially suitable for applications where there are alternate loads and shock loads. They have wide applications mainly in industrial and construction machinery.

Maintenance-free Spherical Plain Bearings consist of an outer ring which has a special PTFE liner reinforced with copper alloy meshes on the sliding surface, and a spherical inner ring of which sliding surface has a hard chromium plating. Creep deformation due to compressive load is small, and wear resistance is superior. Thus, they are maintenance-free and can be used for extended periods of time without re-lubrication.

They are especially suitable in cases where fixed directional loads are applied and are used mainly in food processing machines and construction machinery and in other applications in which the use of oil is undesirable or lubrication is not possible.

Boundary dimensions(mm)										Mass	Bearing Number
d	D	B	C	T	dk	S	A	rs,r1s min	□□BR	Kg	
25	47	15	14	15	42	0.6	7.5	1	2.5	0.148	GAC25S
28	52	16	15	16	47	1	8	1	2	0.186	GAC28S
30	55	17	15	17	49.5	1.3	8.5	1	4.5	0.208	GAC30S
32	58	17	16	17	52	2	8.5	1	2	0.241	GAC32S
35	62	18	16	18	55.5	2.1	9	1	4	0.268	GAC35S
40	68	19	17	19	62	2.8	9.5	1	3.5	0.327	GAC40S
45	75	20	18	20	68.5	3.5	10	1	3	0.416	GAC45S
50	80	20	19	20	74	4.3	10	1	1.5	0.455	GAC50S
55	90	23	20	23	82	5	11.5	1.1	4	0.645	GAC55S

60	95	23	21	23	88.5	5.7	11.5	1.1	2.5	0.714	GAC60S
65	100	23	22	23	93.5	6.5	11.5	1.1	1	0.759	GAC65S
70	110	25	23	25	102	7.2	12.5	1.1	2	1.04	GAC70S
75	115	25	24	25	107	7.9	12.5	1.1	1	1.12	GAC75S
80	125	29	25.5	29	115	8.6	14.5	1.1	3.5	1.54	GAC80S
85	130	29	26.5	29	122	9.4	14.5	1.1	2	1.61	GAC85S
90	140	32	28	32	128.5	10.1	16	1.5	3.5	2.09	GAC90S
95	145	32	29.5	32	135	10.8	16	1.5	2	2.22	GAC95S
100	150	32	31	32	141	11.6	16	1.5	0.5	2.34	GAC100S
105	160	35	32.5	35	148	12.3	17.5	2	2	2.93	GAC105S
110	170	38	34	38	155	13	19	2	3	3.68	GAC110S

120	180	38	37	38	168	14.5	19	2	0.5	3.97	GAC120S
130	200	45	43	45	188	18	19	2.5	1	5.92	GAC130S
140	210	45	43	45	198	19	19	2.5	1	6.33	GAC140S
150	225	48	46	48	211	20	20.5	3	1	8.01	GAC150S
160	240	51	49	51	225	20	22	3	1	9.42	GAC160S
170	260	57	55	57	246	21	27	3	1	12.3	GAC170S
180	280	64	61	64	260	21	28	3	1	17.4	GAC180S
190	290	64	62	64	275	26	30	3	0.5	18.2	GAC190S
200	310	70	66	70	290	26	30	3	1.5	22.5	GAC200S

<http://www.bearing-fastener.com>