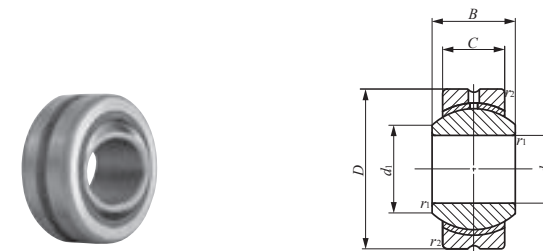


SPHERICAL BUSHINGS

- Steel-on-steel Spherical Bushings
- Maintenance-free Spherical Bushings



Lubrication Type PILLOBALL Spherical Bushings **Insert Type**



PB

Identification number	Mass (Ref.) g	Boundary dimensions mm							Ball dia. mm (inch)	Dynamic load capacity C_d N	Static load capacity C_s N
		d	D	C	B	d_1	$r_{s \min}^{(1)}$				
PB 5	8.5	5	16	6	8	7.7	0.2	11.112 ($\frac{7}{16}$)	3 270	7 850	
PB 6	13	6	18	6.75	9	9	0.2	12.700 ($\frac{1}{2}$)	4 200	10 100	
PB 8	24	8	22	9	12	10.4	0.2	15.875 ($\frac{5}{8}$)	7 010	16 800	
PB 10	39	10	26	10.5	14	12.9	0.2	19.050 ($\frac{3}{4}$)	9 810	23 500	
PB 12	58	12	30	12	16	15.4	0.2	22.225 ($\frac{7}{8}$)	13 100	31 400	
PB 14	84	14	34	13.5	19	16.9	0.3	25.400 (1)	16 800	40 400	
PB 16	111	16	38	15	21	19.4	0.3	28.575 ($1\frac{1}{8}$)	21 000	50 400	
PB 18	160	18	42	16.5	23	21.9	0.3	31.750 ($1\frac{1}{4}$)	25 700	61 600	
PB 20	210	20	46	18	25	24.4	0.3	34.925 ($1\frac{3}{8}$)	30 800	74 000	
PB 22	265	22	50	20	28	25.8	0.3	38.100 ($1\frac{1}{2}$)	37 400	89 700	
PB 25	390	25	56	22	31	29.6	0.6	42.862 ($1\frac{11}{16}$)	46 200	111 000	
PB 28	410	28	62	25	35	32.3	0.6	47.625 ($1\frac{7}{8}$)	58 400	140 000	
PB 30	610	30	66	25	37	34.8	0.6	50.800 (2)	62 300	149 000	

Note⁽¹⁾ Minimum allowable value of chamfer dimensions r_1 and r_2
 Remarks1. The outer ring has an oil groove and an oil hole.
 2. No grease is prepacked. Perform proper lubrication.

SPHERICAL BUSHINGS

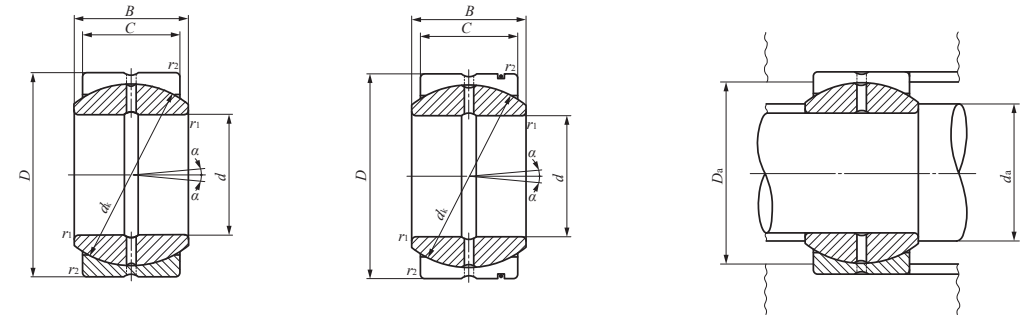
Steel-on-steel Spherical Bushings



Shaft dia. 12 – 100mm

Shaft dia. mm	Identification number		Mass (Ref.) kg	Boundary dimensions mm						Permissible tilting angle degree α
				d	D	B	C	d_k	$r_s^{(1)}$	
12	SB 12A	SB 122211	0.019	12	22	11	9	18	0.3	7
15	SB 15A	SB 152613	0.028	15	26	13	11	22	0.3	6
20	SB 20A	SB 203216	0.053	20	32	16	14	28	0.3	4
22	SB 22A	SB 223719	0.085	22	37	19	16	32	0.3	6
25	SB 25A	SB 254221	0.116	25	42	21	18	36	0.3	5
30	SB 30A	SB 305027	0.225	30	50	27	23	45	0.6	6
35	SB 35A	SB 355530	0.300	35	55	30	26	50	0.6	5
40	SB 40A	SB 406233	0.375	40	62	33	28	55	0.6	6
45	SB 45A	SB 457236	0.600	45	72	36	31	62	0.6	5
50	SB 50A	SB 508042	0.870	50	80	42	36	72	0.6	5
55	SB 55A	SB 559047	1.26	55	90	47	40	80	0.6	5
60	SB 60A	SB 6010053	1.70	60	100	53	45	90	0.6	6
65	SB 65A	SB 6510555	2.05	65	105	55	47	94	0.6	5
70	SB 70A	SB 7011058	2.22	70	110	58	50	100	0.6	5
75	SB 75A	SB 7512064	3.02	75	120	64	55	110	0.6	5
80	SB 80A	SB 8013070	3.98	80	130	70	60	120	0.6	5
85	SB 85A	SB 8513574	4.29	85	135	74	63	125	0.6	6
90	SB 90A	SB 9014076	4.71	90	140	76	65	130	0.6	5
95	SB 95A	SB 9515082	6.05	95	150	82	70	140	0.6	5
100	SB 100A	SB 10016088	7.42	100	160	88	75	150	1	5

Notes⁽¹⁾ Minimum allowable value of chamfer dimensions r_1 and r_2
⁽²⁾ When Spherical Bushings are used with full tilting angle, the shaft shoulder dimension must be less than the maximum value of d_a .
 Remarks1. The inner ring and the outer ring have an oil groove and two oil holes, respectively.
 2. No grease is prepacked. Perform proper lubrication.



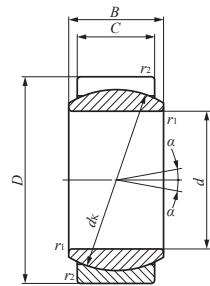
SB...A

SB

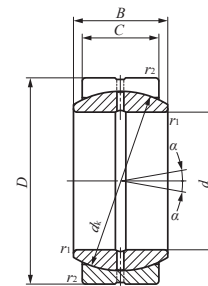
Mounting dimensions mm				Dynamic load capacity C_d N	Static load capacity C_s N
d_a		D_a			
Min.	Max. ⁽²⁾	Max.	Min.		
14	14	19.5	17	15 900	95 300
17.5	17.5	23.5	21	23 700	142 000
22.5	23	29.5	26	38 400	231 000
24.5	25.5	34.5	30	50 200	301 000
27.5	29	39.5	34	63 500	381 000
34.5	36	45.5	42	101 000	609 000
39.5	40	50.5	46.5	127 000	765 000
44	44	57.5	51.5	151 000	906 000
49.5	50.5	67.5	58	188 000	1 130 000
54.5	58.5	75.5	67	254 000	1 530 000
59.5	64.5	85.5	74.5	314 000	1 880 000
64.5	72.5	95.5	83.5	397 000	2 380 000
69.5	76	100.5	87	433 000	2 600 000
74.5	81.5	105.5	93	490 000	2 940 000
79.5	89.5	115.5	102	593 000	3 560 000
84.5	97.5	125.5	112	706 000	4 240 000
89.5	100.5	130.5	116	772 000	4 630 000
94.5	105.5	135.5	121	829 000	4 970 000
99.5	113.5	145.5	130	961 000	5 770 000
105.5	121.5	154.5	139	1 100 000	6 620 000

SPHERICAL BUSHINGS

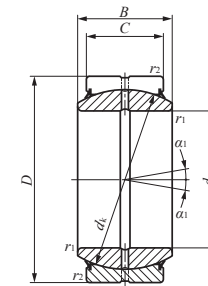
Steel-on-steel Spherical Bushings



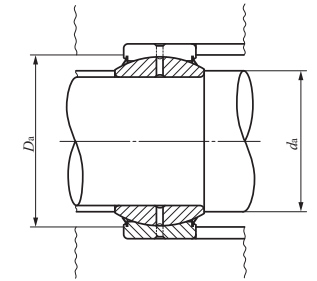
GE...E



GE...ES



GE...ES-2RS



Shaft dia. 4 – 100mm

Shaft dia. mm	Identification number		Mass (Ref.) kg	Boundary dimensions mm							Permissible tilting angle degree	
	Without seals	With seals		d	D	B	C	dk	r _{1s} ⁽¹⁾ min	r _{2s} ⁽¹⁾ min	α	α ₁
4	GE 4E	—	0.003	4	12	5	3	8	0.3	0.3	16	—
5	GE 5E	—	0.004	5	14	6	4	10	0.3	0.3	13	—
6	GE 6E	—	0.004	6	14	6	4	10	0.3	0.3	13	—
8	GE 8E	—	0.008	8	16	8	5	13	0.3	0.3	15	—
10	GE 10E	—	0.012	10	19	9	6	16	0.3	0.3	12	—
12	GE 12E	—	0.017	12	22	10	7	18	0.3	0.3	11	—
15	GE 15ES	GE 15ES-2RS	0.032	15	26	12	9	22	0.3	0.3	8	5
17	GE 17ES	GE 17ES-2RS	0.049	17	30	14	10	25	0.3	0.3	10	7
20	GE 20ES	GE 20ES-2RS	0.065	20	35	16	12	29	0.3	0.3	9	6
25	GE 25ES	GE 25ES-2RS	0.115	25	42	20	16	35.5	0.6	0.6	7	4
30	GE 30ES	GE 30ES-2RS	0.160	30	47	22	18	40.7	0.6	0.6	6	4
35	GE 35ES	GE 35ES-2RS	0.258	35	55	25	20	47	0.6	1	6	4
40	GE 40ES	GE 40ES-2RS	0.315	40	62	28	22	53	0.6	1	7	4
45	GE 45ES	GE 45ES-2RS	0.413	45	68	32	25	60	0.6	1	7	4
50	GE 50ES	GE 50ES-2RS	0.560	50	75	35	28	66	0.6	1	6	4
60	GE 60ES	GE 60ES-2RS	1.10	60	90	44	36	80	1	1	6	3
70	GE 70ES	GE 70ES-2RS	1.54	70	105	49	40	92	1	1	6	4
80	GE 80ES	GE 80ES-2RS	2.29	80	120	55	45	105	1	1	6	4
90	GE 90ES	GE 90ES-2RS	2.82	90	130	60	50	115	1	1	5	3
100	GE 100ES	GE 100ES-2RS	4.43	100	150	70	55	130	1	1	7	5

Notes⁽¹⁾ Minimum allowable value of chamfer dimensions r_1 and r_2
⁽²⁾ When Spherical Bushings are used with full tilting angle, the shaft shoulder dimension must be less than the maximum value of d_a .
 Remarks1. GE...E has no oil hole. Others are provided with an oil groove and two oil holes on the inner ring and outer ring, respectively.
 2. No grease is prepacked. Perform proper lubrication.

Mounting dimensions mm				Dynamic load capacity C_d N	Static load capacity C_s N
d_a		D_a			
Min.	Max. ⁽²⁾	Max.	Min.		
6	6	9.5	8	2 350	14 100
7.5	8	11.5	10	3 920	23 500
8	8	11.5	10	3 920	23 500
10	10	13.5	13	6 370	38 200
12.5	13	16.5	15.5	9 410	56 500
14.5	15	19.5	17	12 400	74 100
17.5	18	23.5	22.5	19 400	117 000
19.5	20.5	27.5	26	24 500	147 000
22.5	24	32.5	30.5	34 100	205 000
29	29	37.5	37	55 700	334 000
34	34	42.5	41.5	71 800	431 000
39.5	39.5	49.5	48	92 200	553 000
44.5	45	56.5	54.5	114 000	686 000
49.5	50.5	62.5	60	147 000	883 000
54.5	56	69.5	66	181 000	1 090 000
65.5	66.5	84.5	79	282 000	1 690 000
75.5	77.5	99.5	91	361 000	2 170 000
85.5	89	114.5	103	463 000	2 780 000
95.5	98	124.5	112	564 000	3 380 000
105.5	109.5	144.5	127	701 000	4 210 000

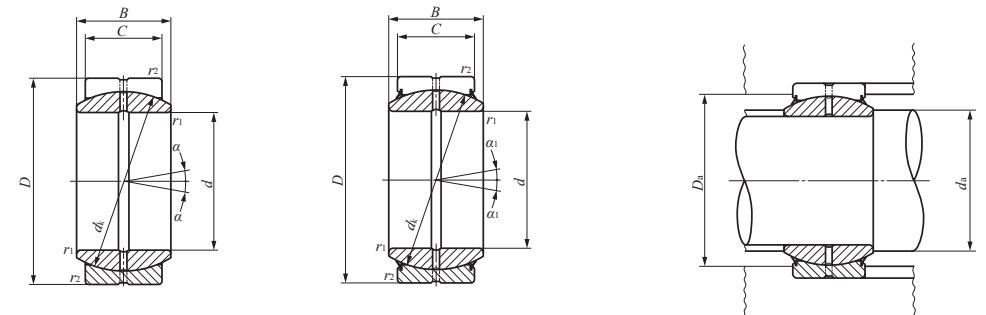
Steel-on-steel Spherical Bushings



Shaft dia. 110 – 300mm

Shaft dia. mm	Identification number		Mass (Ref.) kg	Boundary dimensions mm							Permissible tilting angle degree	
	Without seals	With seals		d	D	B	C	d_k	$r_{1s \min}^{(1)}$	$r_{2s \min}^{(1)}$	α	α_1
110	GE 110ES	GE 110ES-2RS	4.94	110	160	70	55	140	1	1	6	4
120	GE 120ES	GE 120ES-2RS	8.12	120	180	85	70	160	1	1	6	4
140	GE 140ES	GE 140ES-2RS	11.4	140	210	90	70	180	1	1	7	5
160	GE 160ES	GE 160ES-2RS	14.4	160	230	105	80	200	1	1	8	6
180	GE 180ES	GE 180ES-2RS	18.9	180	260	105	80	225	1.1	1.1	6	5
200	GE 200ES	GE 200ES-2RS	28.1	200	290	130	100	250	1.1	1.1	7	6
220	GE 220ES	GE 220ES-2RS	36.1	220	320	135	100	275	1.1	1.1	8	6
240	GE 240ES	GE 240ES-2RS	40.4	240	340	140	100	300	1.1	1.1	8	6
260	GE 260ES	GE 260ES-2RS	52.0	260	370	150	110	325	1.1	1.1	7	6
280	GE 280ES	GE 280ES-2RS	66.0	280	400	155	120	350	1.1	1.1	6	5
300	GE 300ES	GE 300ES-2RS	76.0	300	430	165	120	375	1.1	1.1	7	6

Notes⁽¹⁾ Minimum allowable value of chamfer dimensions r_1 and r_2
⁽²⁾ When Spherical Bushings are used with full tilting angle, the shaft shoulder dimension must be less than the maximum value of d_a .
 Remarks1. The inner ring and the outer ring have an oil groove and two oil holes, respectively.
 2. No grease is prepacked. Perform proper lubrication.



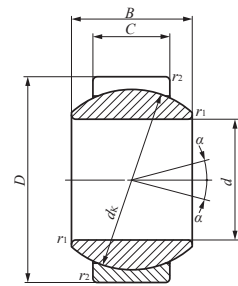
GE...ES

GE...ES-2RS

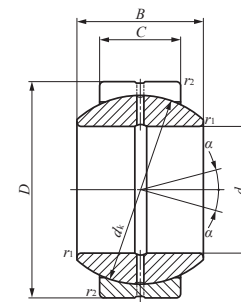
Mounting dimensions mm				Dynamic load capacity C_d N	Static load capacity C_s N
d_a		D_a			
Min.	Max. ⁽²⁾	Max.	Min.		
115.5	121	154.5	138	755 000	4 530 000
125.5	135.5	174.5	154	1 100 000	6 590 000
145.5	155.5	204.5	176	1 240 000	7 410 000
165.5	170	224.5	195	1 570 000	9 410 000
187	199	253	221	1 770 000	10 600 000
207	213.5	283	244	2 450 000	14 700 000
227	239.5	313	269	2 700 000	16 200 000
247	265	333	296	2 940 000	17 700 000
267	288	363	320	3 510 000	21 000 000
287	313.5	393	345	4 120 000	24 700 000
307	336.5	423	371	4 410 000	26 500 000

SPHERICAL BUSHINGS

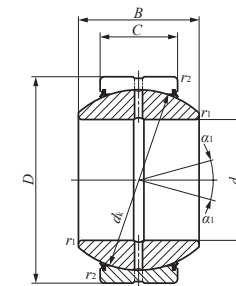
Steel-on-steel Spherical Bushings



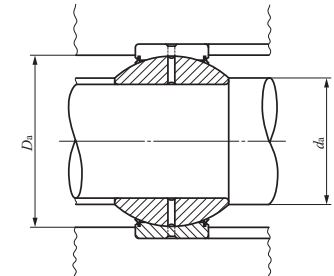
GE...G



GE...GS



GE...GS-2RS



Shaft dia. 6 – 120mm

Shaft dia. mm	Identification number		Mass (Ref.) kg	Boundary dimensions mm							Permissible tilting angle degree	
	Without seals	With seals		d	D	B	C	d _k	r _{1s min} ⁽¹⁾	r _{2s min} ⁽¹⁾	α	α ₁
6	GE 6G	—	0.010	6	16	9	5	13	0.3	0.3	21	—
8	GE 8G	—	0.015	8	19	11	6	16	0.3	0.3	21	—
10	GE 10G	—	0.022	10	22	12	7	18	0.3	0.3	18	—
12	GE 12G	—	0.041	12	26	15	9	22	0.3	0.3	18	—
15	GE 15GS	GE 15GS-2RS	0.059	15	30	16	10	25	0.3	0.3	16	13
17	GE 17GS	GE 17GS-2RS	0.083	17	35	20	12	29	0.3	0.3	19	16
20	GE 20GS	GE 20GS-2RS	0.155	20	42	25	16	35.5	0.3	0.6	17	16
25	GE 25GS	GE 25GS-2RS	0.215	25	47	28	18	40.7	0.6	0.6	17	15
30	GE 30GS	GE 30GS-2RS	0.330	30	55	32	20	47	0.6	1	17	16
35	GE 35GS	GE 35GS-2RS	0.400	35	62	35	22	53	0.6	1	16	15
40	GE 40GS	GE 40GS-2RS	0.515	40	68	40	25	60	0.6	1	17	14
45	GE 45GS	GE 45GS-2RS	0.660	45	75	43	28	66	0.6	1	15	13
50	GE 50GS	GE 50GS-2RS	1.50	50	90	56	36	80	0.6	1	17	16
60	GE 60GS	GE 60GS-2RS	2.05	60	105	63	40	92	1	1	17	15
70	GE 70GS	GE 70GS-2RS	3.00	70	120	70	45	105	1	1	16	14
80	GE 80GS	GE 80GS-2RS	3.60	80	130	75	50	115	1	1	14	13
90	GE 90GS	GE 90GS-2RS	5.41	90	150	85	55	130	1	1	15	14
100	GE 100GS	GE 100GS-2RS	6.15	100	160	85	55	140	1	1	14	12
110	GE 110GS	GE 110GS-2RS	9.70	110	180	100	70	160	1	1	12	11
120	GE 120GS	GE 120GS-2RS	15.5	120	210	115	70	180	1	1	16	15

Notes⁽¹⁾ Minimum allowable value of chamfer dimensions r_1 and r_2
⁽²⁾ When Spherical Bushings are used with full tilting angle, the shaft shoulder dimension must be less than the maximum value of d_a .
 Remarks1. GE...G has no oil hole. Others are provided with an oil groove and two oil holes on the inner ring and outer ring, respectively.
 2. No grease is prepacked. Perform proper lubrication.

Mounting dimensions mm				Dynamic load capacity C_d N	Static load capacity C_s N
Min.	Max. ⁽²⁾	Max.	Min.		
8.5	9	13.5	13	6 370	38 200
10.5	11.5	16.5	15.5	9 410	56 500
12.5	13	19.5	17	12 400	74 100
14.5	16	23.5	21	19 400	117 000
17.5	19	27.5	26	24 500	147 000
19.5	21	32.5	30.5	34 100	205 000
22.5	25	37.5	37	55 700	334 000
29.5	29.5	42.5	41.5	71 800	431 000
34	34	49.5	48	92 200	553 000
39.5	39.5	56.5	54.5	114 000	686 000
44.5	44.5	62.5	60	147 000	883 000
49.5	50	69.5	66	181 000	1 090 000
54.5	57	84.5	79	282 000	1 690 000
65.5	67	99.5	91	361 000	2 170 000
75.5	78	114.5	103	463 000	2 780 000
85.5	87	124.5	112	564 000	3 380 000
95.5	98	144.5	127	701 000	4 210 000
105.5	111	154.5	138	755 000	4 530 000
115.5	124.5	174.5	154	1 100 000	6 590 000
125.5	138.5	204.5	176	1 240 000	7 410 000

SPHERICAL BUSHINGS

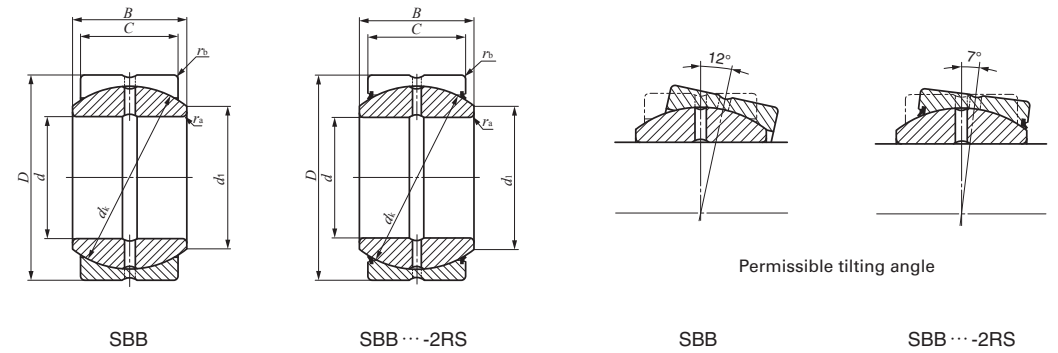
Steel-on-steel Spherical Bushings **Inch Series**



Shaft dia. 12.700 – 63.500mm

Shaft dia. mm (inch)	Identification number		Mass (Ref.) kg	Boundary dimensions mm(inch)			
	Without seal	With seals		<i>d</i>	<i>D</i>	<i>B</i>	<i>C</i>
12.700 (1/2)	SBB 8	—	0.020	12.700 (1/2)	22.225 (7/8)	11.10(.437)	9.52(.375)
15.875 (5/8)	SBB 10	—	0.036	15.875 (5/8)	26.988 (1 1/16)	13.89(.547)	11.91(.469)
19.050 (3/4)	SBB 12	SBB 12-2RS	0.057	19.050 (3/4)	31.750 (1 1/4)	16.66(.656)	14.27(.562)
22.225 (7/8)	SBB 14	SBB 14-2RS	0.088	22.225 (7/8)	36.512 (1 7/16)	19.43(.765)	16.66(.656)
25.400 (1)	SBB 16	SBB 16-2RS	0.125	25.400 (1)	41.275 (1 5/8)	22.22(.875)	19.05(.750)
31.750 (1 1/4)	SBB 20	SBB 20-2RS	0.234	31.750 (1 1/4)	50.800 (2)	27.76(1.093)	23.80(.937)
34.925 (1 3/8)	SBB 22	SBB 22-2RS	0.349	34.925 (1 3/8)	55.562 (2 3/16)	30.15(1.187)	26.19(1.031)
38.100 (1 1/2)	SBB 24	SBB 24-2RS	0.424	38.100 (1 1/2)	61.912 (2 7/16)	33.32(1.312)	28.58(1.125)
44.450 (1 3/4)	SBB 28	SBB 28-2RS	0.649	44.450 (1 3/4)	71.438 (2 13/16)	38.89(1.531)	33.32(1.312)
50.800 (2)	SBB 32	SBB 32-2RS	0.939	50.800 (2)	80.962 (3 3/16)	44.45(1.750)	38.10(1.500)
57.150 (2 1/4)	SBB 36	SBB 36-2RS	1.32	57.150 (2 1/4)	90.488 (3 9/16)	50.01(1.969)	42.85(1.687)
63.500 (2 1/2)	SBB 40	SBB 40-2RS	1.85	63.500 (2 1/2)	100.012 (3 15/16)	55.55(2.187)	47.62(1.875)

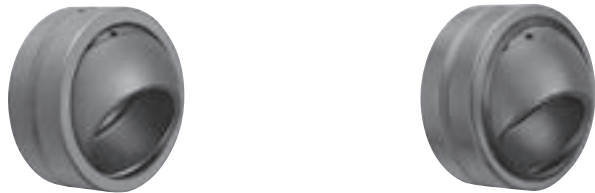
Note(1) Maximum allowable corner radius of the shaft or housing
 Remarks1. The value with mark * is applicable to types without seals. For types with seals, the value is 0.4 mm.
 2. The inner ring and the outer ring have an oil groove and two oil holes, respectively.
 3. No grease is prepacked. Perform proper lubrication.



<i>d_k</i>	Radial internal clearance mm Min./Max.	Mounting dimensions mm			Dynamic load capacity <i>C_d</i> N	Static load capacity <i>C_s</i> N
		<i>d₁</i>	⁽¹⁾ <i>r_{as} max</i> Max.	⁽¹⁾ <i>r_{bs} max</i> Max.		
18 (.709)	0.05 / 0.15	14.0	0.2	0.6	16 800	101 000
23 (.906)	0.05 / 0.15	17.9	0.2	0.8	26 900	161 000
27.5(1.083)	0.08 / 0.18	21.4	0.6	*0.8	38 500	231 000
32 (1.260)	0.08 / 0.18	25.0	0.6	*0.8	52 300	314 000
36 (1.417)	0.08 / 0.18	28.0	0.6	*0.8	67 300	404 000
45 (1.772)	0.08 / 0.18	35.1	0.6	0.8	105 000	630 000
49 (1.929)	0.08 / 0.18	38.5	0.6	0.8	126 000	755 000
55 (2.165)	0.08 / 0.18	43.3	0.6	0.8	154 000	925 000
64 (2.520)	0.08 / 0.18	50.4	0.6	0.8	209 000	1 250 000
73 (2.874)	0.08 / 0.18	57.6	0.6	0.8	273 000	1 640 000
82 (3.228)	0.10 / 0.20	64.9	0.6	0.8	345 000	2 070 000
91 (3.583)	0.10 / 0.20	72.0	0.6	0.8	425 000	2 550 000

SPHERICAL BUSHINGS

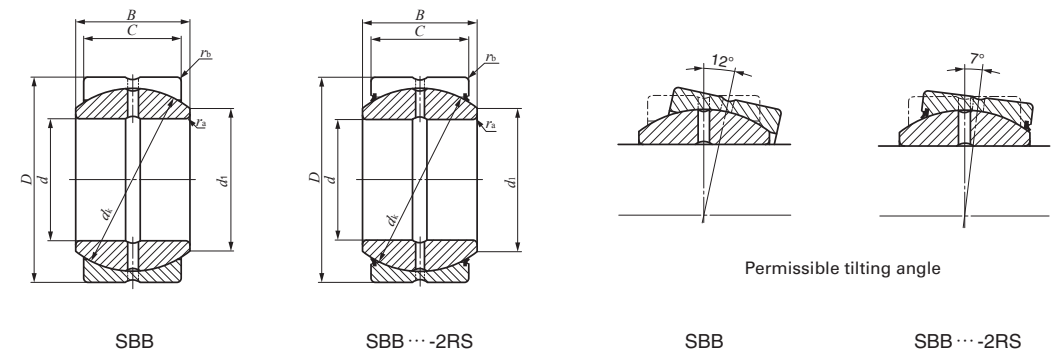
Steel-on-steel Spherical Bushings **Inch Series**



Shaft dia. 69.850 – 152.400mm

Shaft dia. mm (inch)	Identification number		Mass (Ref.) kg	Boundary dimensions mm(inch)			
	Without seal	With seals		<i>d</i>	<i>D</i>	<i>B</i>	<i>C</i>
69.850 (2 ³ / ₄)	SBB 44	SBB 44-2RS	2.44	69.850 (2 ³ / ₄)	111.125 (4 ³ / ₈)	61.11(2.406)	52.37(2.062)
76.200 (3)	SBB 48	SBB 48-2RS	3.12	76.200 (3)	120.650 (4 ³ / ₄)	66.68(2.625)	57.15(2.250)
82.550 (3 ¹ / ₄)	SBB 52	SBB 52-2RS	3.92	82.550 (3 ¹ / ₄)	130.175 (5 ¹ / ₈)	72.24(2.844)	61.90(2.437)
88.900 (3 ¹ / ₂)	SBB 56	SBB 56-2RS	4.83	88.900 (3 ¹ / ₂)	139.700 (5 ¹ / ₂)	77.77(3.062)	66.68(2.625)
95.250 (3 ³ / ₄)	SBB 60	SBB 60-2RS	5.87	95.250 (3 ³ / ₄)	149.225 (5 ⁷ / ₈)	83.34(3.281)	71.42(2.812)
101.600 (4)	SBB 64	SBB 64-2RS	7.07	101.600 (4)	158.750 (6 ¹ / ₄)	88.90(3.500)	76.20(3.000)
107.950 (4 ¹ / ₄)	SBB 68	SBB 68-2RS	8.46	107.950 (4 ¹ / ₄)	168.275 (6 ⁵ / ₈)	94.46(3.719)	80.95(3.187)
114.300 (4 ¹ / ₂)	SBB 72	SBB 72-2RS	9.94	114.300 (4 ¹ / ₂)	177.800 (7)	100.00(3.937)	85.72(3.375)
120.650 (4 ³ / ₄)	SBB 76	SBB 76-2RS	11.6	120.650 (4 ³ / ₄)	187.325 (7 ³ / ₈)	105.56(4.156)	90.47(3.562)
127.000 (5)	SBB 80	SBB 80-2RS	13.5	127.000 (5)	196.850 (7 ³ / ₄)	111.12(4.375)	95.25(3.750)
152.400 (6)	SBB 96	SBB 96-2RS	17.6	152.400 (6)	222.250 (8 ³ / ₄)	120.65(4.750)	104.78(4.125)

Note(1) Maximum allowable corner radius of the shaft or housing
 Remarks1. The inner ring and the outer ring have an oil groove and two oil holes, respectively.
 2. No grease is prepacked. Perform proper lubrication.



<i>d_k</i>	Radial internal clearance mm Min./Max.	Mounting dimensions mm			Dynamic load capacity <i>C_d</i> N	Static load capacity <i>C_s</i> N
		<i>d₁</i>	⁽¹⁾ <i>r_{as} max</i> Max.	⁽¹⁾ <i>r_{bs} max</i> Max.		
100(3.937)	0.10 / 0.20	79.0	0.6	0.8	514 000	3 080 000
110(4.331)	0.10 / 0.20	86.5	0.6	0.8	616 000	3 700 000
119(4.685)	0.13 / 0.23	94.1	0.6	0.8	722 000	4 330 000
128(5.039)	0.13 / 0.23	101.6	0.6	0.8	837 000	5 020 000
137(5.394)	0.13 / 0.23	108.4	0.6	0.8	960 000	5 760 000
146(5.748)	0.13 / 0.23	115.8	0.6	0.8	1 090 000	6 550 000
155(6.102)	0.13 / 0.23	122.6	0.8	1.1	1 230 000	7 380 000
164(6.457)	0.13 / 0.23	129.8	0.8	1.1	1 380 000	8 270 000
173(6.811)	0.13 / 0.23	136.8	0.8	1.1	1 530 000	9 210 000
183(7.205)	0.13 / 0.23	144.9	0.8	1.1	1 710 000	10 300 000
207(8.150)	0.13 / 0.23	167.5	0.8	1.1	2 130 000	12 800 000

K

SB
GE
SBB