Spherical Plain Bearings

UBC sphercial plain bearings are self–aligning spherical plain bearings capable of bearing both large radial load and bidirectional axial load. There are many part numbers, which can be roughly divided into lubricating type and self–lubricating type according to the type of sliding surface.

The inner and outer rings of lubricating type radial spherical plain bearings are made of high–carbon chromium bearing steel. The sliding surface is hardened and wear–resistant, and covered by molybdenum disulfide dry film. The bearings are operated with low torque and have excellent wear–resistance and large load capacity.They are especially suitable for the position where the load changes alternately and with shock loads.

They are widely used in engineering machinery, construction machinery, metallurgical heavy machinery, etc

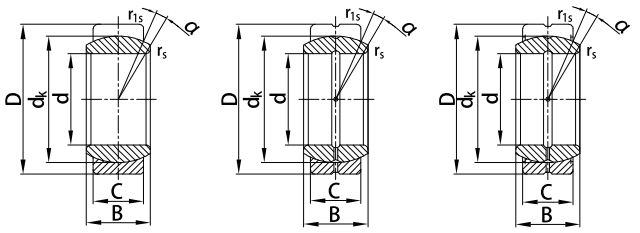
Self–lubricating type radial spherical plain bearings are equipped with outer rings lined with special PTFE composite material and inner rings coated with hard chromium on the sliding surface, which deforms less under a compressive load and has excellent wear–resistant properties.

They are especially suitable for bearing load in a certain direction, for food machinery and other fields where oil is not suitable and for parts of construction machinery where oil cannot be added.

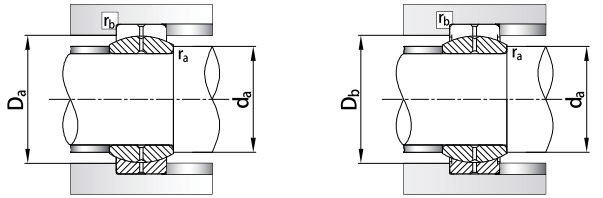
The rod end of UBC rod end spherical plain bearings has internal thread or external thread, easy for installation. It can be used for textile machinery and packaging machinery and other control mechanisms and rod structure, especially suitable for food machinery and other areas that dislike oil and parts where oil cannot be added.

Radial Spherical Plain Bearings Requiring Maintenance

Sliding contact surfaces: Steel / Steel



GE...E GE...ES GE...ES-2RS



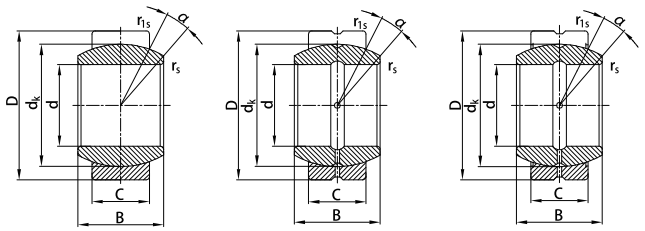
GE...ES GE...ES-2RS

Bearing Designations		Principal Dimensions (mm)								Load Ratings (KN)		Weight ≈kg		Abutment and Fillet Dimensions							
		d	D	B	C	d_k	r_s min	r_{1s} min	α° ≈	Dynamic Load	Static Load			d_a		D_a		D_b		r_a	r_b
														max	min	max	min	max	min	max	max
GE4E	-	4	12	5	3	8	0.3	0.3	16	2	10	0.003		6	6	10	8	-	-	0.3	0.3
GE5E	-	5	14	6	4	10	0.3	0.3	13	3.4	17	0.005		7	7	12	10	-	-	0.3	0.3
GE6E	-	6	14	6	4	10	0.3	0.3	13	3.4	17	0.004		8	8	12	10	-	-	0.3	0.3
GE8E	-	8	16	8	5	13	0.3	0.3	15	5.5	27	0.007		10	10	14	13	-	-	0.3	0.3
GE10E	-	10	19	9	6	16	0.3	0.3	12	8.1	40	0.011		13	13	17	17	-	-	0.3	0.3
GE12E	-	12	22	10	7	18	0.3	0.3	10	10	53	0.017		15	15	19	18	-	-	0.3	0.3
GE15ES	GE15ES-2RS	15	26	12	9	22	0.3	0.3	8	16	84	0.026		18	18	23	21	23	22	0.3	0.3
GE17ES	GE17ES-2RS	17	30	14	10	25	0.3	0.3	10	21	106	0.04		20	20	27	24	27	25	0.3	0.3
GE20ES	GE20ES-2RS	20	35	16	12	29	0.3	0.3	9	30	146	0.064		24	23	31	28	31	30	0.3	0.3
GE25ES	GE25ES-2RS	25	42	20	16	35.5	0.6	0.6	7	48	240	0.115		29	28	38	33	38	36	0.6	0.6
GE30ES	GE30ES-2RS	30	47	22	18	40.7	0.6	0.6	6	62	310	0.149		34	33	43	38	43	40	0.6	0.6
GE35ES	GE35ES-2RS	35	55	25	20	47	0.6	1	6	79	399	0.228		39	38	50	44	50	47	0.6	1
GE40ES	GE40ES-2RS	40	62	28	22	53	0.6	1	7	99	495	0.318		45	44	57	50	57	53	0.6	1
GE45ES	GE45ES-2RS	45	68	32	25	60	0.6	1	7	127	637	0.421		50	49	63	56	63	59	0.6	1
GE50ES	GE50ES-2RS	50	75	35	28	66	0.6	1	6	156	780	0.562		55	54	70	61	70	64	0.6	1
GE55ES	GE55ES-2RS	55	85	40	32	74	0.6	1	7	200	1000	0.864		60	59	80	70	80	73	0.6	1
GE60ES	GE60ES-2RS	60	90	44	36	80	1	1	6	245	1220	1.03		66	65	84	73	84	77	1	1
GE70ES	GE70ES-2RS	70	105	49	40	92	1	1	6	313	1560	1.57		77	75	99	84	99	89	1	1
GE80ES	GE80ES-2RS	80	120	55	45	105	1	1	6	400	2000	2.32		88	85	114	97	114	102	1	1
GE90ES	GE90ES-2RS	90	130	60	50	115	1	1	5	488	2440	2.79		98	96	124	106	124	110	1	1
GE100ES	GE100ES-2RS	100	150	70	55	130	1	1	7	607	3030	4.44		109	106	144	120	144	127	1	1
GE110ES	GE110ES-2RS	110	160	70	55	140	1	1	6	654	3270	4.83		120	116	154	131	154	138	1	1
GE120ES	GE120ES-2RS	120	180	85	70	160	1	1	6	950	4750	8.11		130	126	174	146	174	154	1	1
GE140ES	GE140ES-2RS	140	210	90	70	180	1	1	7	1070	5350	11.2		160	146	204	168	204	177	1	1
GE160ES	GE160ES-2RS	160	230	105	80	200	1	1	8	1360	6800	14.1		170	166	224	186	224	196	1	1
GE180ES	GE180ES-2RS	180	260	105	80	225	1.1	1.1	6	1530	7650	18.5		192	187	253	214	253	224	1.1	1.1
GE200ES	GE200ES-2RS	200	290	130	100	250	1.1	1.1	7	2120	10600	28.4		212	207	283	233	283	245	1.1	1.1
GE220ES	GE220ES-2RS	220	320	135	100	275	1.1	1.1	8	2320	11600	35.7		238	227	313	260	313	272	1.1	1.1
GE240ES	GE240ES-2RS	240	340	140	100	300	1.1	1.1	8	2550	12700	39.7		265	247	333	286	333	299	1.1	1.1
GE260ES	GE260ES-2RS	260	370	150	110	325	1.1	1.1	7	3030	15190	51.5		280	267	363	310	363	323	1.1	1.1
GE280ES	GE280ES-2RS	280	400	155	120	350	1.1	1.1	6	3570	17850	64.9		310	287	393	333	393	346	1.1	1.1
GE300ES	GE300ES-2RS	300	430	165	120	375	1.1	1.1	7	3800	19100	77.6		330	307	423	360	423	373	1.1	1.1

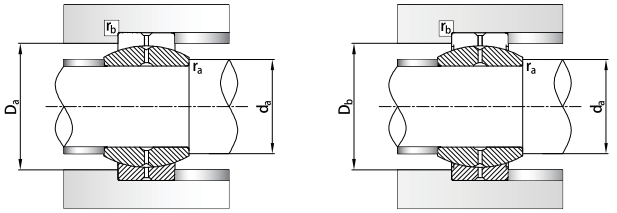
Note: ① Outer ring has an axial slit, inner ring and outer ring are of bearing steel, hardened and phosphated, sliding surface treated with MoS2. All bearings have an annular groove and lubrication in each ring except those of the E design. Bearings of the 2RS design are fitted with seals at both sides.
② Outer ring sliding surface can be designed with cross lubrication slots, with suffix "YA". For example: GE160ESYA–2RS

Radial Spherical Plain Bearings Requiring Maintenance

Sliding contact surfaces: Steel / Steel



GEG...E GEG...ES GEG...ES-2RS



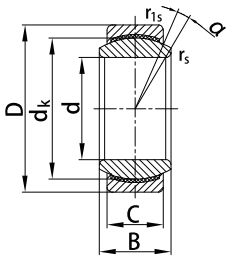
GEG...ES GEG...ES-2RS

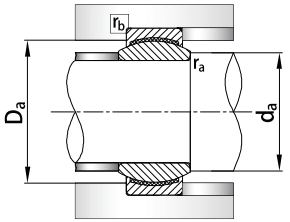
Bearing Designations		Principal Dimensions(mm)								Load Ratings (KN)		Weight ≈kg		Abutment and Fillet Dimensions							
		d	D	B	C	d_k	r_s min	r_{1s} min	α° ≈	Dynamic Load	Static Load			d_a		D_a		D_b		r_a	r_b
														max	min	max	min	max	min	max	max
GEG4E	-	4	14	7	4	10	0.3	0.3	20	3.4	17	0.005		7	6	12	10	-	-	0.3	0.3
GEG5E	-	5	16	9	5	13	0.3	0.3	21	5.5	27	0.009		8	7	14	12	-	-	0.3	0.3
GEG6E	-	6	16	9	5	13	0.3	0.3	21	5.5	27	0.008		9	8	14	12	-	-	0.3	0.3
GEG8E	-	8	19	11	6	16	0.3	0.3	21	8.1	40	0.014		11	10	17	15	-	-	0.3	0.3
GEG10E	-	10	22	12	7	18	0.3	0.3	18	10	53	0.021		13	13	20	18	-	-	0.3	0.3
GEG12E	-	12	26	15	9	22	0.3	0.3	18	16	84	0.036		16	15	23	21	-	-	0.3	0.3
GEG15ES	GEG15ES-2RS	15	30	16	10	25	0.3	0.3	16	21	106	0.048		19	18	27	24	27	25	0.3	0.3
GEG17ES	GEG17ES-2RS	17	35	20	12	29	0.3	0.3	19	30	146	0.08		21	20	32	28	32	30	0.3	0.3
GEG20ES	GEG20ES-2RS	20	42	25	16	35.5	0.3	0.6	17	48	240	0.152		24	23	38	33	38	36	0.3	0.3
GEG25ES	GEG25ES-2RS	25	47	28	18	40.7	0.6	0.6	17	62	310	0.199		29	28	43	38	43	40	0.6	0.6
GEG30ES	GEG30ES-2RS	30	55	32	20	47	0.6	1	17	79	399	0.296		34	33	50	44	50	47	0.6	1
GEG35ES	GEG35ES-2RS	35	62	35	22	53	0.6	1	16	99	495	0.402		39	38	57	50	57	53	0.6	1
GEG40ES	GEG40ES-2RS	40	68	40	25	60	0.6	1	17	127	637	0.535		44	44	63	56	63	59	0.6	1
GEG45ES	GEG45ES-2RS	45	75	43	28	66	0.6	1	15	156	780	0.698		50	49	70	61	70	64	0.6	1
GEG50ES	GEG50ES-2RS	50	90	56	36	80	0.6	1	17	245	1220	1.42		57	54	84	73	84	77	0.6	1
GEG60ES	GEG60ES-2RS	60	105	63	40	92	1	1	17	313	1560	2.09		67	65	99	84	99	89	1	1
GEG70ES	GEG70ES-2RS	70	120	70	45	105	1	1	16	400	2000	3.01		77	75	114	87	114	102	1	1
GEG80ES	GEG80ES-2RS	80	130	75	50	115	1	1	14	488	2440	3.61		87	85	124	106	124	110	1	1
GEG90ES	GEG90ES-2RS	90	150	85	55	130	1	1	15	607	3030	5.5		98	96	144	120	144	127	1	1
GEG100ES	GEG100ES-2RS	100	160	85	55	140	1	1	14	654	3270	6.04		110	106	154	131	154	138	1	1
GEG110ES	GEG110ES-2RS	110	180	100	70	160	1	1	12	950	4750	9.74		122	116	174	146	174	154	1	1
GEG120ES	GEG120ES-2RS	120	210	115	70	180	1	1	16	1070	5350	15.1		132	126	204	168	204	177	1	1
GEG140ES	GEG140ES-2RS	140	230	130	80	200	1	1	16	1360	6800	18.9		151	146	224	186	224	196	1	1
GEG160ES	GEG160ES-2RS	160	260	135	80	225	1.1	1.1	16	1530	7650	24.8		176	166	254	214	254	224	1.1	1.1
GEG180ES	GEG180ES-2RS	180	290	155	100	250	1.1	1.1	14	2120	10600	35.9		196	187	283	233	283	245	1.1	1.1
GEG200ES	GEG200ES-2RS	200	320	165	100	275	1.1	1.1	15	2320	11600	44.9		220	207	313	260	313	272	1.1	1.1
GEG220ES	GEG220ES-2RS	220	340	175	100	300	1.1	1.1	16	2550	12700	50.9		243	227	333	286	333	299	1.1	1.1
GEG240ES	GEG240ES-2RS	240	370	190	110	325	1.1	1.1	15	3030	15190	65.3		263	247	363	310	363	323	1.1	1.1
GEG260ES	GEG260ES-2RS	260	400	205	120	350	1.1	1.1	15	3570	17850	82		285	267	393	333	393	346	1.1	1.1
GEG280ES	GEG280ES-2RS	280	430	210	120	375	1.1	1.1	15	3800	19100	96.6		310	287	423	360	423	373	1.1	1.1

Note: ① Outer ring has an axial slit, inner ring and outer ring are of bearing steel, hardened and phosphated, sliding surface treated with MoS2. All bearings have an annular groove and lubrication in each ring except those of the E design. Bearings of the 2RS design are fitted with seals at both sides.

Radial spherical plain bearings, maintenance–free

Sliding contact surfaces: Steel / PTFE composite material



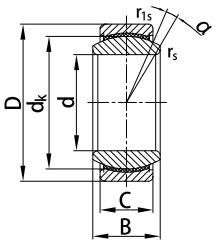


Bearing Designations	Principal Dimensions (mm)								Load Ratings (KN)		Weight ≈kg		Abutment and Fillet Dimensions					
													d_a		D_a		r_a	r_b
	d	D	B	C	d_k	r_s min	r_{1s} min	α° ≈	Dynamic Load	Static Load			max	min	max	min	max	max
GE4C	4	12	5	3	8	0.3	0.3	16	2.1	5.4	0.003		6	6	10	8	0.3	0.3
GE5C	5	14	6	4	10	0.3	0.3	13	3.6	9.1	0.005		7	7	12	10	0.3	0.3
GE6C	6	14	6	4	10	0.3	0.3	13	3.6	9.1	0.004		8	8	12	10	0.3	0.3
GE8C	8	16	8	5	13	0.3	0.3	15	5.8	14	0.007		10	10	14	13	0.3	0.3
GE10C	10	19	9	6	16	0.3	0.3	12	8.6	21	0.011		13	13	17	17	0.3	0.3
GE12C	12	22	10	7	18	0.3	0.3	10	11	28	0.017		15	15	19	18	0.3	0.3
GE15C	15	26	12	9	22	0.3	0.3	8	18	45	0.026		18	18	23	21	0.3	0.3
GE17C	17	30	14	10	25	0.3	0.3	10	22	56	0.04		20	20	27	24	0.3	0.3
GE20C	20	35	16	12	29	0.3	0.3	9	31	78	0.064		24	23	31	28	0.3	0.3
GE25C	25	42	20	16	35.5	0.6	0.6	7	51	127	0.115		29	28	38	33	0.6	0.6
GE30C	30	47	22	18	40.7	0.6	0.6	6	65	166	0.149		34	33	43	38	0.6	0.6
GE35C	35	55	25	20	47	0.6	1	6	84	211	0.228		39	38	50	44	0.6	1
GE40C	40	62	28	22	53	0.6	1	7	104	262	0.318		45	44	57	50	0.6	1
GE45C	45	68	32	25	60	0.6	1	7	135	337	0.421		50	49	63	56	0.6	1
GE50C	50	75	35	28	66	0.6	1	6	166	415	0.562		55	54	70	61	0.6	1
GEG4C	4	14	7	4	10	0.3	0.3	20	3.6	9.1	0.005		7	6	12	10	0.3	0.3
GEG5C	5	16	9	5	13	0.3	0.3	21	5.8	14	0.008		8	7	14	12	0.3	0.3
GEG6C	6	16	9	5	13	0.3	0.3	21	5.8	14	0.006		9	8	14	12	0.3	0.3
GEG8C	8	19	11	6	16	0.3	0.3	21	8.6	21	0.014		11	10	17	15	0.3	0.3
GEG10C	10	22	12	7	18	0.3	0.3	18	11	28	0.021		13	13	20	18	0.3	0.3
GEG12C	12	26	15	9	22	0.3	0.3	18	18	45	0.033		16	15	23	21	0.3	0.3
GEG15C	15	30	16	10	25	0.3	0.3	16	22	56	0.049		19	18	27	24	0.3	0.3
GEG17C	17	35	20	12	29	0.3	0.3	19	31	78	0.083		21	20	32	28	0.3	0.3
GEG20C	20	42	25	16	35.5	0.3	0.3	17	51	127	0.153		24	23	38	33	0.3	0.3
GEG25C	25	47	28	18	40.7	0.6	0.6	17	65	166	0.203		29	28	43	38	0.6	0.6
GEG30C	30	55	32	20	47	0.6	1	17	84	211	0.304		34	33	50	44	0.6	1
GEG35C	35	62	35	22	53	0.6	1	16	104	262	0.408		39	38	57	50	0.6	1
GEG40C	40	68	40	25	60	0.6	1	17	135	337	0.542		44	44	63	56	0.6	1
GEG45C	45	75	43	28	66	0.6	1	15	166	415	0.713		50	49	70	61	0.6	1

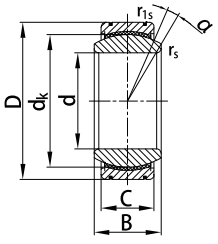
Note: ① Outer ring is of carbon steel, extrusion forming with sliding surface of PTFE composite material. Inner ring is of bearing steel, hardened, sliding surface treated with hard chromium coating.
② The inner and outer rings can be made of stainless steel，mark "X" as the suffix, that is GE...C/X

Radial spherical plain bearings, maintenance–free

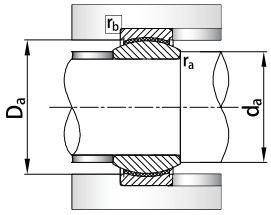
Sliding contact surfaces: Steel / PTFE composite material



GE...ETL-2RS



GE...XTL-2RS



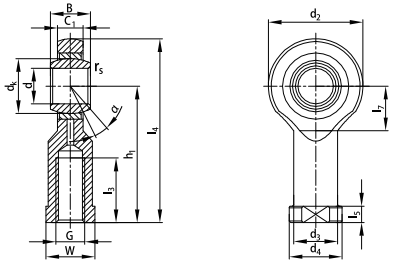
Bearing Designations	Principal Dimensions (mm)								Load Ratings (KN)		Weight ≈kg		Abutment and Fillet Dimensions					
	d	D	B	C	d_k	r_s min	r_{1s} min	α° ≈	Dynamic Load	Static Load			d_a		D_a		r_a	r_b
													max	min	max	min	max	max
GE15ETL-2RS	15	26	12	9	22	0.3	0.3	8	47	79	0.026		18	18	23	21	0.3	0.3
GE17ETL-2RS	17	30	14	10	25	0.3	0.3	10	60	100	0.04		20	20	27	24	0.3	0.3
GE20ETL-2RS	20	35	16	12	29	0.3	0.3	9	83	139	0.064		24	23	31	28	0.3	0.3
GE25ETL-2RS	25	42	20	16	35.5	0.6	0.6	7	135	225	0.115		29	28	38	33	0.6	0.6
GE30ETL-2RS	30	47	22	18	40.7	0.6	0.6	6	175	290	0.149		34	33	43	38	0.6	0.6
GE35ETL-2RS	35	55	25	20	47	0.6	1	6	225	375	0.228		39	38	50	44	0.6	1
GE40ETL-2RS	40	62	28	22	53	0.6	1	7	275	465	0.318		45	44	57	50	0.6	1
GE45ETL-2RS	45	68	32	25	60	0.6	1	7	360	600	0.421		50	49	63	56	0.6	1
GE50ETL-2RS	50	75	35	28	66	0.6	1	6	440	735	0.562		55	54	70	61	0.6	1
GE55ETL-2RS	55	85	40	32	74	0.6	1	7	560	940	0.864		60	59	80	70	0.6	1
GE60ETL-2RS	60	90	44	36	80	1	1	6	690	1150	1.03		66	65	84	73	1	1
GE70ETL-2RS	70	105	49	40	92	1	1	6	880	1470	1.57		77	75	99	84	1	1
GE80ETL-2RS	80	120	55	45	105	1	1	6	1130	1890	2.32		88	85	114	97	1	1
GE90ETL-2RS	90	130	60	50	115	1	1	5	1380	2300	2.79		98	96	124	106	1	1
GE100ETL-2RS	100	150	70	55	130	1	1	7	1710	2860	4.44		109	106	144	120	1	1
GE110ETL-2RS	110	160	70	55	140	1	1	6	1840	3080	4.83		120	116	154	131	1	1
GE120ETL-2RS	120	180	85	70	160	1	1	6	2680	4480	8.11		130	126	174	146	1	1
GE140XTL-2RS	140	210	90	70	180	1	1	7	3020	5040	11.2		160	146	204	168	1	1
GE160XTL-2RS	160	230	105	80	200	1	1	8	3840	6400	14.1		170	166	224	186	1	1
GE180XTL-2RS	180	260	105	80	225	1.1	1.1	6	4320	7200	18.5		192	187	253	214	1.1	1.1
GE200XTL-2RS	200	290	130	100	250	1.1	1.1	7	6000	10000	28.4		212	207	283	233	1.1	1.1
GE220XTL-2RS	220	320	135	100	275	1.1	1.1	8	6600	11000	35.7		238	227	313	260	1.1	1.1
GE240XTL-2RS	240	340	140	100	300	1.1	1.1	8	7200	12000	39.7		265	247	333	286	1.1	1.1
GE260XTL-2RS	260	370	150	110	325	1.1	1.1	7	8580	14300	51.5		280	267	363	310	1.1	1.1
GE280XTL-2RS	280	400	155	120	350	1.1	1.1	6	10000	16800	64.9		310	287	393	333	1.1	1.1
GE300XTL-2RS	300	430	165	120	375	1.1	1.1	7	10800	18000	77.6		330	307	423	360	1.1	1.1

Note: ① The outer ring has an axial slit with two seals at both sides. Outer ring is of bearing steel, hardened, phosphated, with sliding surface of PTFE composite material. Inner ring is of bearing steel, quenched, sliding surface coated with hard chromium. Part no. with suffix of XTL, means that the outer ring is splited into two parts axially, held together by retaining rings.

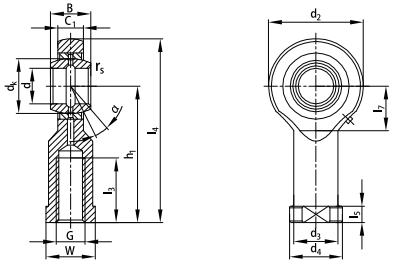
② Radial spherical plain bearings with seals "2RS" and without seals are both available.

Rod end spherical plain bearing requiring maintenance

Sliding contact surfaces: Steel/Steel



SI...E



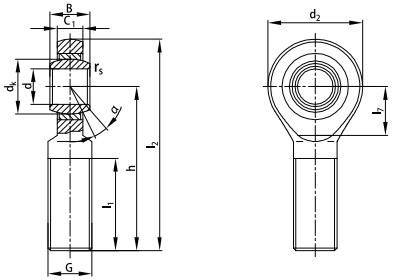
SI...ES 、 SIS...ES

Bearing Designations	Principal Dimensions(mm)												Principal Dimensions(mm)					Basic Load Ratings(KN)		Weight ≈kg
	d	B	d_k	C_1 max	d_2	G 6H	h_1	l_3 min	l_4	l_5	l_7		W	d_3	d_4	r_s min	α° ≈	Dynamic Cr	Static Cor	
SI5E	5	6	10	4.5	21	M5	30	11	40.5	5	11.5		10	10	13	0.3	13	3.4	8.1	0.023
SI6E	6	6	10	4.5	21	M6	30	11	40.5	5	11.5		11	11	13	0.3	13	3.4	8.1	0.023
SI8E	8	8	13	6.5	24	M8	36	15	48	5	13		13	13	16	0.3	15	5.5	12.9	0.04
SI10E	10	9	16	7.5	29	M10	43	20	57.5	6.5	15		16	16	19	0.3	12	8.1	17.6	0.065
SI12E	12	10	18	8.5	34	M12	50	23	67	7	18		18	19	22	0.3	10	10	24.5	0.108
SI15ES	15	12	22	10.5	40	M14	61	30	81	8	21		21	21	26	0.3	8	16	36	0.169
SI17ES	17	14	25	11.5	46	M16	67	34	90	10	24		27	25	29	0.3	10	21	45	0.235
SI20ES	20	16	29	13.5	53	M20X1.5	77	40	103.5	10	25.5		30	28	34	0.3	9	30	60	0.335
SI25ES	25	20	35.5	18	64	M24X2	94	48	126	12	33		36	35	42	0.6	7	48	83	0.665
SI30ES	30	22	40.7	20	73	M30X2	110	56	146.5	15	37.5		46	42	50	0.6	6	62	110	1.05
SI35ES	35	25	47	22	82	M36X3	125	60	166	15	40		55	48	58	0.6	6	79	146	1.5
SI40ES	40	28	53	24	92	M39X3	142	65	188	18	47		60	52	65	0.6	7	99	180	2.05
SIS40ES	40	28	53	24	92	M42X3	142	65	188	18	47		55	52	65	0.6	7	99	180	1.94
SI45ES	45	32	60	28	102	M42X3	145	65	196	20	52		65	58	70	0.6	7	127	240	2.72
SIS45ES	45	32	60	27	102	M45X3	145	65	196	20	52		60	58	70	0.6	7	127	240	2.61
SI50ES	50	35	66	31	112	M45X3	160	68	216	20	57		70	62	75	0.6	6	156	290	3.48
SIS50ES	50	35	66	31	112	M52X3	160	69	216	20	57		65	62	75	0.6	6	156	260	3.24
SI60ES	60	44	80	39	135	M52X3	175	70	242.5	20	68.5		80	70	88	1	6	245	450	5.55
SIS60ES	60	44	80	39	135	M60X4	175	73	242.5	20	68.5		75	70	88	1	6	245	300	4.99
SI70ES	70	49	92	43	160	M56X4	200	80	280	20	81		85	80	98	1	6	313	610	8.72
SIS70ES	70	49	92	42	160	M72X4	200	80	280	20	81		80	85	98	1	6	313	470	8.33
SI80ES	80	55	105	48	180	M64X4	230	85	320	25	91		95	95	110	1	6	400	750	12.9
SIS80ES	80	55	105	47	180	M80X4	230	85	320	25	91		100	95	110	1	6	400	600	11.7

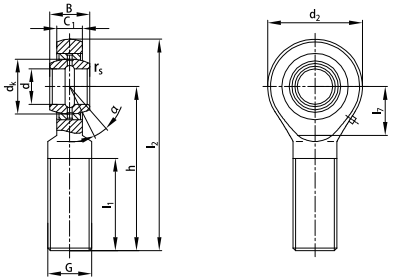
Note: ① Rod end spherical plain bearing with cartridge design is assembled by rod end and radial spherical plain bearing series GE···E or GE···ES. The material of rod end is carbon steel and the surface is coated with zinc. Except for the item with suffix "E", other items can be lubricated via a nipple or a hole in the rod end.
② If it is a left–hand thread, the bearing type and thread mark should be added with suffix "L".
For example: SIL20ES M20X1.5 L–6H
③ Rod end spherical plain bearings with different pitches or thread precisions with special requirements can also be available.

Rod end spherical plain bearing requiring maintenance

Sliding contact surfaces: Steel/Steel



SA...E



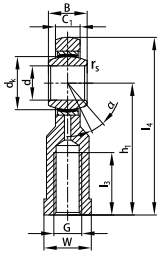
SA...ES 、 SAS...ES

Bearing Designations	Principal Dimensions(mm)									Principal Dimensions(mm)				Basic Load Ratings(KN)		Weight ≈kg
	d	B	dk	C_1 max	d_2	G 6g	h	l_1 min		l_2	l_7	r_s min	α° ≈	Dynamic Cr	Static Cor	
SA5E	5	6	10	4.5	21	M5	36	16		46.5	11.5	0.3	13	3.4	3.9	0.015
SA6E	6	6	10	4.5	21	M6	36	16		46.5	11.5	0.3	13	3.4	5.5	0.016
SA8E	8	8	13	6.5	24	M8	42	21		54	13	0.3	15	5.5	10	0.026
SA10E	10	9	16	7.5	29	M10	48	26		62.5	15.5	0.3	12	8.1	16	0.05
SA12E	12	10	18	8.5	34	M12	54	28		71	18	0.3	10	10	23	0.068
SA15ES	15	12	22	10.5	40	M14	63	34		83	21	0.3	8	16	32	0.12
SA17ES	17	14	25	11.5	46	M16	69	36		92	24	0.3	10	21	44	0.19
SA20ES	20	16	29	13.5	53	M20X1.5	78	43		104.5	25.5	0.3	9	30	60	0.3
SA25ES	25	20	35.5	18	64	M24X2	94	53		126	31	0.6	7	48	83	0.555
SA30ES	30	22	40.7	20	73	M30X2	110	65		146.5	35.5	0.6	6	62	110	0.875
SA35ES	35	25	47	22	82	M36X3	140	82		181	41	0.6	6	79	146	1.42
SA40ES	40	28	53	24	92	M39X3	150	86		196	47	0.6	7	99	180	1.85
SAS40ES	40	28	53	23	92	M42X3	145	86		191	47	0.6	7	99	180	2.04
SA45ES	45	32	60	28	102	M42X3	163	92		214	52	0.6	7	127	240	2.49
SAS45ES	45	32	60	27	102	M45X3	165	95		216	52	0.6	7	127	240	2.74
SA50ES	50	35	66	31	112	M45X3	185	104		241	60	0.6	6	156	290	3.58
SAS50ES	50	35	66	30	112	M52X3	195	110		251	60	0.6	6	156	290	4.07
SA60ES	60	44	80	39	135	M52X3	210	115		277.5	75.5	1.0	6	245	450	5.89
SAS60ES	60	44	80	38	135	M60X4	225	120		292.5	75.5	1.0	6	245	450	6.79
SA70ES	70	49	92	43	160	M56X4	235	125		315	95	1.0	6	313	610	8.51
SAS70ES	70	59	92	42	160	M72X4	265	132		345	95	1.0	6	313	610	11.2
SA80ES	80	55	105	48	180	M64X4	270	140		360	105.5	1.0	6	400	750	12.3
SAS80ES	80	55	105	47	180	M80X4	295	147		385	105.5	1.0	6	400	750	15.3

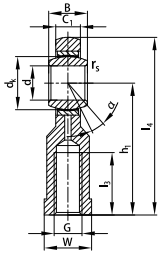
Note: ① Rod end spherical plain bearing with cartridge design is assembled by rod end and radial spherical plain bearing series GE···E or GE···ES. The material of rod end is carbon steel and the surface is coated with zinc. Except for the item with suffix "E" , other items can be lubricated via a nipple or a hole in the rod end.
② If it is a left–hand thread, the bearing type and thread mark should be added with suffix "L" .
For example: SIL20ES M20X1.5 L–6g
③ Rod end spherical plain bearings with different pitches or thread precisions with special requirements can also be available.

Rod end spherical plain bearing maintenance–free

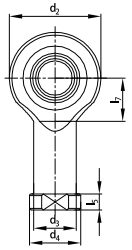
Sliding contact surfaces: Steel/ PTFE composite material



SI...C



SI...ETL-2RS
SIS...ETL-2RS



Bearing Designation	Principal Dimensions (mm)												Principal Dimensions (mm)					Basic Load Ratings(KN)		Weight ≈kg
	d	B	d_k	C_1 max	d_2	G 6H	h_1	l_3 min	l_4	l_5	l_7		W	d_3	d_4	r_s min	α° ≈	Dynamic Cr	Static Cor	
SI5C	5	6	10	4.5	21	M5	30	11	40.5	5	11.5		10	10	13	0.3	13	3.6	8.1	0.023
SI6C	6	6	10	4.5	21	M6	30	11	40.5	5	11.5		11	11	13	0.3	13	3.6	8.1	0.023
SI8C	8	8	13	6.5	24	M8	36	15	48	5	13		13	13	16	0.3	15	5.8	12.9	0.04
SI10C	10	9	16	7.5	29	M10	43	20	57.5	6.5	15		16	16	19	0.3	12	8.6	17.6	0.065
SI12C	12	10	18	8.5	34	M12	50	23	67	7	18		18	19	22	0.3	10	11	24.5	0.108
SI15C	15	12	22	10.5	40	M14	61	30	81	8	21		21	21	26	0.3	8	18	36	0.169
SI15ETL-2RS	15	12	22	10.5	40	M14	61	30	81	8	21		21	21	26	0.3	8	25	36	0.169
SI17C	17	14	25	11.5	46	M16	67	34	90	10	24		27	25	29	0.3	10	22	45	0.235
SI17ETL-2RS	17	14	25	11.5	46	M16	67	34	90	10	24		27	25	29	0.3	10	32	45	0.235
SI20C	20	16	29	13.5	53	M20X1.5	77	40	103.5	10	25.5		30	28	34	0.3	9	31	60	0.335
SI20ETL-2RS	20	16	29	13.5	53	M20X1.5	77	40	103.5	10	25.5		30	28	34	0.3	9	45	60	0.335
SI25C	25	20	35.5	18	64	M24X2	94	48	126	12	33		36	35	42	0.6	7	51	85	0.665
SI25ETL-2RS	25	20	35.5	18	64	M24X2	94	48	126	12	33		36	35	42	0.6	7	85	85	0.665
SI30C	30	22	40.7	20	73	M30X2	110	56	146.5	15	37.5		46	42	50	0.6	6	65	110	1.05
SI30ETL-2RS	30	22	40.7	20	73	M30X2	110	56	146.5	15	37.5		46	42	50	0.6	6	110	110	1.05
SI35ETL-2RS	35	25	47	22	82	M36X3	125	60	166	15	40		55	48	58	0.6	6	140	146	1.50
SI40ETL-2RS	40	28	53	24	92	M39X3	142	65	188	18	47		60	52	65	0.6	7	175	180	2.05
SIS40ETL-2RS	40	28	53	24	92	M42X3	142	65	188	18	47		55	52	65	0.6	7	99	180	1.94
SI45ETL-2RS	45	32	60	28	102	M42X3	145	65	196	20	52		65	58	70	0.6	7	225	240	2.72
SIS45ETL-2RS	45	32	60	27	102	M45X3	145	65	196	20	52		60	58	70	0.6	7	127	240	2.61
SI50ETL-2RS	50	35	66	31	112	M45X3	160	68	216	20	57		70	62	75	0.6	6	275	290	3.48
SIS50ETL-2RS	50	35	66	31	112	M52X3	160	69	216	20	57		65	62	75	0.6	6	156	260	3.24
SI60ETL-2RS	60	44	80	39	135	M52X3	175	70	242.5	20	68.5		80	70	88	1	6	430	450	5.55
SIS60ETL-2RS	60	44	80	39	135	M60X4	175	73	242.5	20	68.5		75	70	88	1	6	245	300	4.99
SI70ETL-2RS	70	49	92	43	160	M56X4	200	80	280	20	81		85	80	98	1	6	550	610	8.72
SIS70ETL-2RS	70	49	92	42	160	M72X4	200	80	280	20	81		80	85	98	1	6	313	470	8.33
SI80ETL-2RS	80	55	105	48	180	M64X4	230	85	320	25	91		95	95	110	1	6	705	750	12.9
SIS80ETL-2RS	80	55	105	47	180	M80X4	230	85	320	25	91		100	95	110	1	6	400	600	11.7

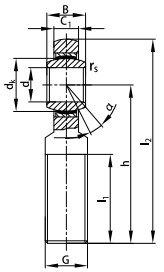
Note: ① Rod end radial spherical plain bearings maintenance–free SI···C with cartridge design is assembled by rod end and radial spherical plain bearing series GE···C. SI...ETL–2RS is assembled by rod end and radial spherical plain bearing series GE···ETL–2RS. The material of rod end is carbon steel and the surface is coated with zinc. No lubrication required.

② If it is a left–hand thread, the bearing type and thread mark should be added with "L". For example: SIL20ES M20X1.5 L–6H

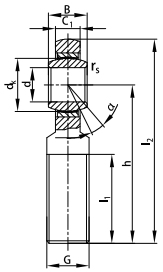
③ Rod end spherical plain bearings with different pitches or thread precisions with special requirements can also be available.

Rod end spherical plain bearing maintenance–free

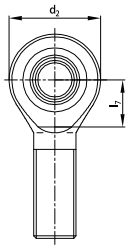
Sliding contact surfaces: Steel/ PTFE composite material



SA...C



SA...ETL-2RS
SAS...ETL-2RS



Bearing Designation	Principal Dimensions (mm)									Principal Dimensions (mm)			Basic Load Ratings(KN)		Weight ≈kg
	d	B	d_k	C_1 max	d_2	G 6g	h	l_1 min	l_2	l_7	r_s min	α° ≈	Dynamic Cr	Static Cor	
SA5C	5	6	10	4.5	21	M5	36	16	46.5	11.5	0.3	13	3.6	3.9	0.015
SA6C	6	6	10	4.5	21	M6	36	16	46.5	11.5	0.3	13	3.6	5.5	0.016
SA8C	8	8	13	6.5	24	M8	42	21	54	13	0.3	15	5.8	10	0.026
SA10C	10	9	16	7.5	29	M10	48	26	62.5	15.5	0.3	12	8.6	16	0.05
SA12C	12	10	18	8.5	34	M12	54	28	71	18	0.3	10	11	23	0.068
SA15C	15	12	22	10.5	40	M14	63	34	83	21	0.3	8	18	32	0.12
SA15ETL-2RS	15	12	22	10.5	40	M14	63	34	83	21	0.3	8	25	32	0.12
SA17C	17	14	25	11.5	46	M16	69	36	92	24	0.3	10	22	44	0.19
SA17ETL-2RS	17	14	25	11.5	46	M16	69	36	92	24	0.3	10	32	44	0.19
SA20C	20	16	29	13.5	53	M20X1.5	78	43	104.5	25.5	0.3	9	31	60	0.3
SA20ETL-2RS	20	16	29	13.5	53	M20X1.5	78	43	104 5	25.5	0.3	9	45	60	0.3
SA25C	25	20	35.5	18	64	M24X2	94	53	126	31	0.6	7	51	85	0.555
SA25ETL-2RS	25	20	35.5	18	64	M24X2	94	53	126	31	0.6	7	85	85	0.555
SA30C	30	22	40.7	20	73	M30X2	110	65	146.5	35.5	0.6	6	65	110	0.875
SA30ETL-2RS	30	22	40.7	20	73	M30X2	110	65	146 5	35.5	0.6	6	110	110	0.875
SA35ETL-2RS	35	25	47	22	82	M36X3	140	82	181	41	0.6	6	140	146	1.42
SA40ETL-2RS	40	28	53	24	92	M39X3	150	86	196	47	0.6	7	175	180	1.85
SAS40ETL-2RS	40	28	53	23	92	M42X3	145	86	191	47	0.6	7	99	180	2.04
SA45ETL-2RS	45	32	60	28	102	M42X3	163	92	214	52	0.6	7	225	240	2.49
SAS45ETL-2RS	45	32	60	27	102	M45X3	165	95	216	52	0.6	7	127	240	2.74
SA50ETL-2RS	50	35	66	31	112	M45X3	185	104	241	60	0.6	6	275	290	3.58
SAS50ETL-2RS	50	35	66	30	112	M52X3	195	110	251	60	0.6	6	156	290	4.07
SA60ETL-2RS	60	44	80	39	135	M52X3	210	115	277.5	75.5	1	6	430	450	5.89
SAS60ETL-2RS	60	44	80	38	135	M60X4	225	120	292.5	75.5	1	6	245	450	6.79
SA70ETL-2RS	70	49	92	43	160	M56X4	235	125	315	95	1	6	550	610	8.51
SAS70ETL-2RS	70	49	92	42	160	M72X4	265	132	345	95	1	6	313	610	11.2
SA80ETL-2RS	80	55	105	48	180	M64X4	270	140	360	105.5	1	6	705	750	12.3
SAS80ETL-2RS	80	55	105	47	180	M80X4	295	147	385	105.5	1	6	400	750	15.3

Note: ① Rod end radial spherical plain bearings maintenance–free SA···C with cartridge design is assembled by rod end and radial spherical plain bearing series GE···C. SI...ETL–2RS is assembled by rod end and radial spherical plain bearing series GE···ETL–2RS. The material of rod end is carbon steel and the surface is coated with zinc. No lubrication required.

② If it is a left–hand thread, the bearing type and thread mark should be added with suffix "L". for example: SIL20ES M20X1.5 L–6H

③ Rod end spherical plain bearings with different pitches or thread precisions with special requirements can also be available.