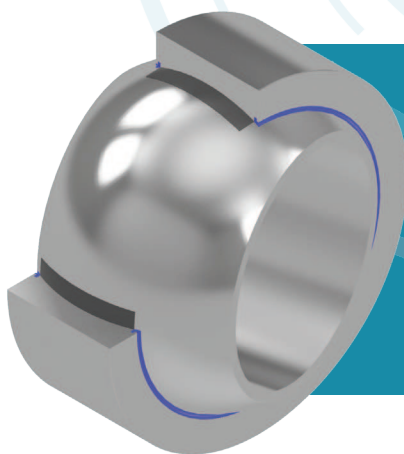
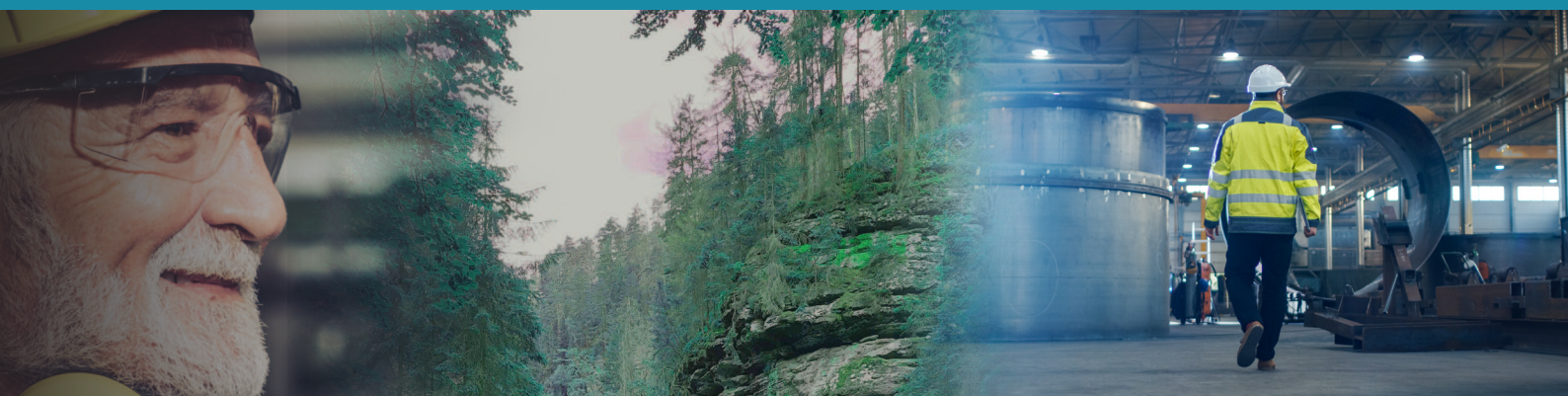




DATASHEET HOWA SPHERE-STL



HOWA-STL
Hardened Bearing
Steel



SPHERICAL PLAIN BEARINGS

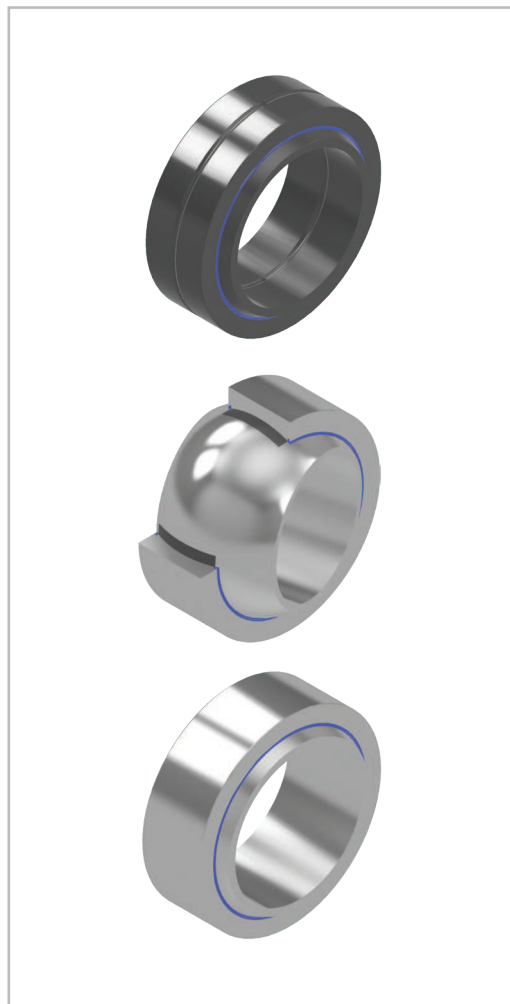


FEATURES

- Available as self-lubricating or lubrication-bound bearings
- Sizes and tolerances in accordance to ISO 12240-1 standard
- Exchangeable with bearings from other brands
- Cost competitive and proven durability for a wide range of applications
- Short lead-times, most standard sizes ex-stock available
- Larger sizes up to ID 1000mm can be produced

TYPICAL INDUSTRIES

- Agriculture
- Manufacturing
- Hydraulic Cylinders
- Automation
- Material Handling



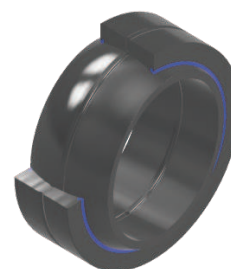
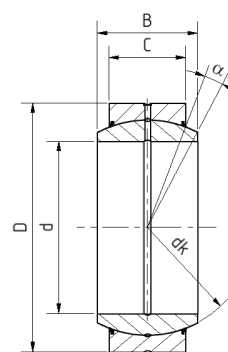
HOWA SPHERE-STL

Radial Spherical Plain Bearing

Glide Pairing Steel / Steel

Standard Dimensions and Tolerances in Accordance to ISO 12240-1, Series E

- Features**
- ▶ Grease Lubrication Required
 - ▶ Hardened, Tough Carbon-Chromium Steel
 - ▶ Ideal for Contaminated Working Conditions
 - ▶ Available With or Without Sealing
 - ▶ Phosphate Coated for Basic Corrosion Protection
 - ▶ Sliding Surfaces with MoS2 Coating
 - ▶ Including Grease Distribution Grooves



Bearing Code*		Principle Dimensions [mm]						Load Rating (kN)		Weight [kg]
		d	D	B	C	dk	α (°)	Dynamic	Cstat	
GE15ES	GE15ES-2RS	15	26	12	9	22	8	16	84	0.026
GE17ES	GE17ES-2RS	17	30	14	10	25	10	21	106	0.04
GE20ES	GE20ES-2RS	20	35	16	12	29	9	30	146	0.064
GE25ES	GE25ES-2RS	25	42	20	16	35.5	7	48	240	0.115
GE30ES	GE30ES-2RS	30	47	22	18	40.7	6	62	310	0.149
GE35ES	GE35ES-2RS	35	55	25	20	47	6	79	399	0.228
GE40ES	GE40ES-2RS	40	62	28	22	53	7	99	495	0.318
GE45ES	GE45ES-2RS	45	68	32	25	60	7	127	637	0.421
GE50ES	GE50ES-2RS	50	75	35	28	66	6	156	780	0.562
GE55ES	GE55ES-2RS	55	85	40	32	74	7	200	1000	0.864
GE60ES	GE60ES-2RS	60	90	44	36	80	6	245	1220	1.03
GE70ES	GE70ES-2RS	70	105	49	40	92	6	313	1560	1.57
GE80ES	GE80ES-2RS	80	120	55	45	105	6	400	2000	2.32
GE90ES	GE90ES-2RS	90	130	60	50	115	5	488	2440	2.79
GE100ES	GE100ES-2RS	100	150	70	55	130	7	607	3030	4.44
GE110ES	GE110ES-2RS	110	160	70	55	140	6	654	3270	4.83
GE120ES	GE120ES-2RS	120	180	85	70	160	6	950	4750	8.11
GE140ES	GE140ES-2RS	140	210	90	70	180	7	1070	5350	11.2
GE160ES	GE160ES-2RS	160	230	105	80	200	8	1360	6800	14.1
GE180ES	GE180ES-2RS	180	260	105	80	225	6	1530	7650	18.5
GE200ES	GE200ES-2RS	200	290	130	100	250	7	2120	10600	28.4
GE220ES	GE220ES-2RS	220	320	135	100	275	8	2320	11600	35.7
GE240ES	GE240ES-2RS	240	340	140	100	300	8	2550	12700	39.7
GE260ES	GE260ES-2RS	260	370	150	110	325	7	3030	15190	51.5
GE280ES	GE280ES-2RS	280	400	155	120	350	6	3570	17850	64.9
GE300ES	GE300ES-2RS	300	430	165	120	375	7	3800	19100	77.6

* 2RS - including 2 wiper seals

HOWA SPHERE-STL

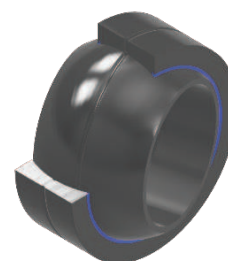
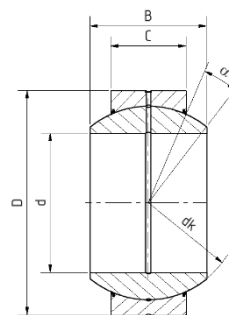
Radial Spherical Plain Bearing

Characteristic Wider Bearing Inner Ring for Increased Load Rating and Tilt Angle

Glide Pairing Steel / Steel

Standard Dimensions and Tolerances in Accordance to ISO 12240-1, Series G

- Features**
- ▶ Grease Lubrication Required
 - ▶ Hardened, Tough Carbon-Chromium Steel
 - ▶ Ideal for Contaminated Working Conditions
 - ▶ Available With or Without Sealing
 - ▶ Phosphate Coated for Basic Corrosion Protection
 - ▶ Sliding Surfaces with MoS2 Coating
 - ▶ Including Grease Distribution Grooves



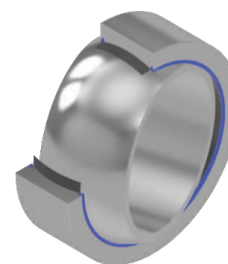
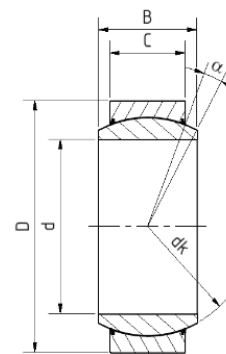
Bearing Code*		Principle Dimensions [mm]						Load Rating (kN)		Weight [kg]
		d	D	B	C	dk	α (°)	Cdyn	Cstat	
GEG10E		10	22	12	7	18	18	10	53	0.021
GEG12E		12	26	15	9	22	18	16	84	0.036
GEG15ES	GEG15ES-2RS	15	30	16	10	25	16	21	106	0.048
GEG17ES	GEG17ES-2RS	17	35	20	12	29	19	30	146	0.08
GEG20ES	GEG20ES-2RS	20	42	25	16	35.5	17	48	240	0.152
GEG25ES	GEG25ES-2RS	25	47	28	18	40.7	17	62	310	0.199
GEG30ES	GEG30ES-2RS	30	55	32	20	47	17	79	399	0.296
GEG35ES	GEG35ES-2RS	35	62	35	22	53	16	99	495	0.402
GEG40ES	GEG40ES-2RS	40	68	40	25	60	17	127	637	0.535
GEG45ES	GEG45ES-2RS	45	75	43	28	66	15	156	780	0.698
GEG50ES	GEG50ES-2RS	50	90	56	36	80	17	245	1220	1.42
GEG60ES	GEG60ES-2RS	60	105	63	40	92	17	313	1560	2.09
GEG70ES	GEG70ES-2RS	70	120	70	45	105	16	400	2000	3.01
GEG80ES	GEG80ES-2RS	80	130	75	50	115	14	488	2440	3.61
GEG90ES	GEG90ES-2RS	90	150	85	55	130	15	607	3030	5.5
GEG100ES	GEG100ES-2RS	100	160	85	55	140	14	654	3270	6.04
GEG110ES	GEG110ES-2RS	110	180	100	70	160	12	950	4750	9.74
GEG120ES	GEG120ES-2RS	120	210	115	70	180	16	1070	5350	15.1
GEG140ES	GEG140ES-2RS	140	230	130	80	200	16	1360	6800	18.9
GEG160ES	GEG160ES-2RS	160	260	135	80	225	16	1530	7650	24.8
GEG180ES	GEG180ES-2RS	180	290	155	100	250	14	2120	10600	35.9
GEG200ES	GEG200ES-2RS	200	320	165	100	275	15	2320	11600	44.9
GEG220ES	GEG220ES-2RS	220	340	175	100	300	16	2550	12700	50.9
GEG240ES	GEG240ES-2RS	240	370	190	110	325	15	3030	15190	65.3
GEG260ES	GEG260ES-2RS	260	400	205	120	350	15	3570	17850	82
GEG280ES	GEG280ES-2RS	280	430	210	120	375	15	3800	19100	96.6

* 2RS - including 2 wiper seals

HOWA SPHERE-STL

Radial Spherical Plain Bearing

Glide Pairing	Hardchrome Plated Steel / PTFE Fabric
Standard	Dimensions and Tolerances in Accordance to ISO 12240-1, Series E
Features	▶ Self-Lubricating / Maintenance-Free ▶ Hardened, Tough Carbon-Chromium Steel ▶ Ideal for Micromovements

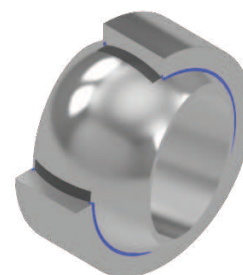
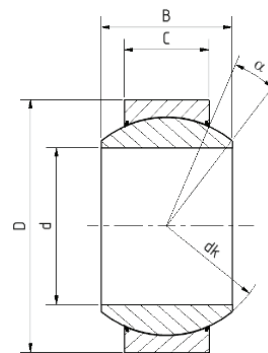


Bearing Code	Principle Dimensions [mm]						Load Rating (kN)		Weight [kg]
	d	D	B	C	dk	α (°)	Cdyn	Cstat	
GE15ET-2RS	15	26	12	9	22	8	47	79	0.026
GE17ET-2RS	17	30	14	10	25	10	60	100	0.04
GE20ET-2RS	20	35	16	12	29	9	83	139	0.064
GE25ET-2RS	25	42	20	16	35.5	7	135	225	0.115
GE30ET-2RS	30	47	22	18	40.7	6	175	290	0.149
GE35ET-2RS	35	55	25	20	47	6	225	375	0.228
GE40ET-2RS	40	62	28	22	53	7	275	465	0.318
GE45ET-2RS	45	68	32	25	60	7	360	600	0.421
GE50ET-2RS	50	75	35	28	66	6	440	735	0.562
GE55ET-2RS	55	85	40	32	74	7	560	940	0.864
GE60ET-2RS	60	90	44	36	80	6	690	1150	1.03
GE70ET-2RS	70	105	49	40	92	6	880	1470	1.57
GE80ET-2RS	80	120	55	45	105	6	1130	1890	2.32
GE90ET-2RS	90	130	60	50	115	5	1380	2300	2.79
GE100ET-2RS	100	150	70	55	130	7	1710	2860	4.44
GE110ET-2RS	110	160	70	55	140	6	1840	3080	4.83
GE120ET-2RS	120	180	85	70	160	6	2680	4480	8.11
GE140ET-2RS	140	210	90	70	180	7	3020	5040	11.2
GE160ET-2RS	160	230	105	80	200	8	3840	6400	14.1
GE180ET-2RS	180	260	105	80	225	6	4320	7200	18.5
GE200ET-2RS	200	290	130	100	250	7	6000	10000	28.4
GE220ET-2RS	220	320	135	100	275	8	6600	11000	35.7
GE240ET-2RS	240	340	140	100	300	8	7200	12000	39.7
GE260ET-2RS	260	370	150	110	325	7	8580	14300	51.5
GE280ET-2RS	280	400	155	120	350	6	10000	16800	64.9
GE300ET-2RS	300	430	165	120	375	7	10800	18000	77.6

HOWA SPHERE-STL

Radial Spherical Plain Bearing

Characteristic	Wider Bearing Inner Ring for Increased Load Rating and Tilt Angle
Glide Pairing	Hardchrome Plated Steel / PTFE Fabric
Standard	Dimensions and Tolerances in Accordance to ISO 12240-1, Series G
Features	▶ Self-Lubricating / Maintenance-Free ▶ Hardened, Tough Carbon-Chromium Steel ▶ Ideal for Micromovements ▶ Dimensions and Tolerances in Accordance to ISO 12240-1, Series G



Bearing Code	Principle Dimensions [mm]						Load Rating (kN)		Weight [kg]
	d	D	B	C	dk	α (°)	Cdyn	Cstat	
GEG15ET-2RS	15	30	16	10	25	16	60	100	0.048
GEG17ET-2RS	17	35	20	12	29	19	83	139	0.08
GEG20ET-2RS	20	42	25	16	35.5	17	135	225	0.152
GEG25ET-2RS	25	47	28	18	40.7	17	175	290	0.199
GEG30ET-2RS	30	55	32	20	47	17	225	375	0.296
GEG35ET-2RS	35	62	35	22	53	16	275	465	0.402
GEG40ET-2RS	40	68	40	25	60	17	360	600	0.535
GEG45ET-2RS	45	75	43	28	66	15	440	735	0.698
GEG50ET-2RS	50	90	56	36	80	17	690	1150	1.42
GEG60ET-2RS	60	105	63	40	92	17	880	1470	2.09
GEG70ET-2RS	70	120	70	45	105	16	1130	1890	3.01
GEG80ET-2RS	80	130	75	50	115	14	1380	2300	3.61
GEG90ET-2RS	90	150	85	55	130	15	1710	2860	5.5
GEG100ETL-2RS	100	160	85	55	140	14	1840	3080	6.04
GEG110ETL-2RS	110	180	100	70	160	12	2680	4480	9.74
GEG120ET-2RS	120	210	115	70	180	16	3020	5040	15.1
GEG140ET-2RS	140	230	130	80	200	16	3840	6400	18.9
GEG160ET-2RS	160	260	135	80	225	16	4320	7200	24.8
GEG180ET-2RS	180	290	155	100	250	14	6000	10000	35.9
GEG200ET-2RS	200	320	165	100	275	15	6600	11000	44.9
GEG220ET-2RS	220	340	175	100	300	16	7200	12000	50.9
GEG240ET-2RS	240	370	190	110	325	15	8580	14300	65.3
GEG260ET-2RS	260	400	205	120	350	15	10000	16800	82
GEG280ET-2RS	280	430	210	120	375	15	10800	18000	96.6