MTK+
BEARINGS

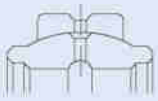
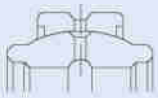
Spherical plain bearings
Rod ends

Spherical plain bearings
Rod ends

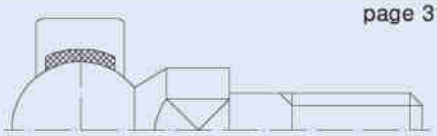
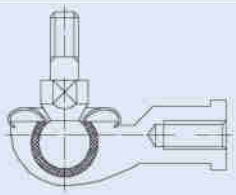
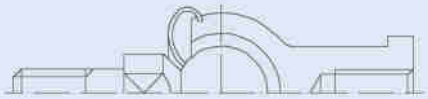
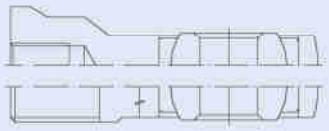
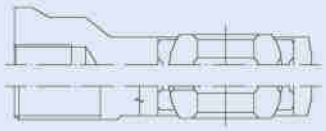
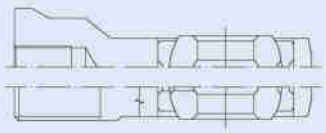
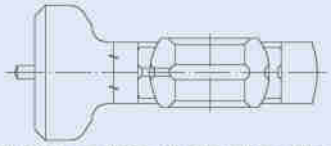
Spherical plain bearings and rod ends MTK are manufactured with material of the best quality on machines of high precision, therefore we are able to garantee that they are products of high quality, suitable to a many lot of uses in sector of industry, farming, hydraulics, pneumatics and everywhere it is requested a precision use, or hard loads, or maintenance free. The tolerances of manufacture and assembly respect the rules of standard ISO (and DIN for some series used for hydraulics) and they are interchangeable with the products of the most important manufactures.

Name and number	Equivalent			Bore diameter range mm	Design feature
	SKF	INA	IKO		
 page 299 Spherical plain radial bearings with fitting crack GE...E GEG...E	GE...E —	GE...DO GE...FO	GE...E GE...G	4-12 4-12	Outer ring without single split in axial direction. No lubrication grooves and holes, both outer and inner rings are properly phosphorlylate-treated
 page 299 Sherical plain radial bearings with fitting crack GE...ES GEG...ES	GE...ES GEH...ES	GE...DO GE...FO	GE...ES GE...GS	15-3000 15-280	Outer ring with single split in axial direction. Lubrication grooves and holes in the outer and inner rings. Both outer and inner rings are properly phosphorlytate-treated.
 page 301 Sherical plain radial bearings with two seals and fitting crack GE...ES 2RS GEG...ES 2RS	GE...ES 2RS GEH...ES 2RS	GE...DO 2RS GE...FO 2RS	GE...ES 2RS GE...GS 2RS	15-300 15-280	Outer ring with single split in axial direction. With two seals. Lubrication grooves and holes in the outer and inner rings. Both outer and inner rings are properly phosphorlylate-treated.

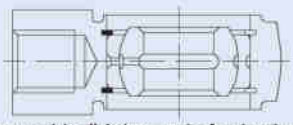
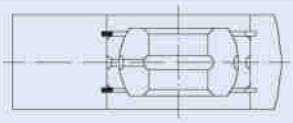
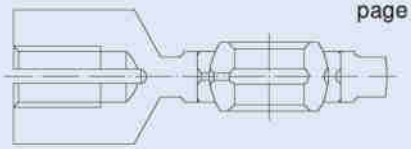
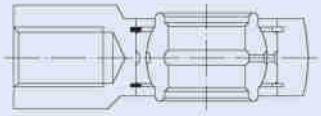
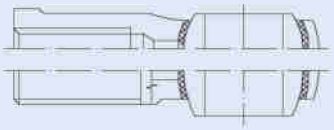
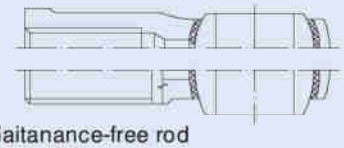
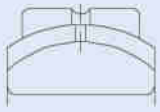
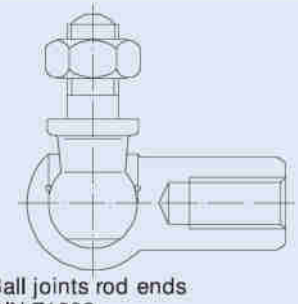
(Continued)

Name and number	Equivalent			Bore diameter range mm	Design feature
	SKF	INA	IKO		
page 303  Sherical plain radial bearings with wide inner ring and fitting crack. GEEW...ES	GEG...ES	GE...LO	—	12-100	Outer ring with single split in axial direction. Inner ring with cylindrical extension at either side. Lubrication grooves and holes in the outer and inner rings. Both outer and inner rings are properly phosphorlylate-treated.
page 303  Sherical plain radial bearings with two seals and wide inner ring and fitting crack. GEEW...ES 2RS GEEM...ES 2RS	GEM...ES 2RS	GE...HO 2RS	—	20-80 12-100	Outer ring with single split in axial direction. With two seals. Inner ring with cylindrical extension at either side. Lubrication grooves and holes in the outer and inner rings. Both outer and inner rings are properly phosphorlylate-treated.
page 305  Maitenance-free spherical plain radial bearings GE...C GE...ET 2RS GEG...C GEG...ET 2RS	GE...C GE...TE 2RS GEH...C GEH...C 2RS	GE...UK GE...UK 2RS GE...FW GE...FW 2RS	GE...EC GE...EL 2RS	4-30 20-140 4-30 30-140	Outer ring pressed around inner ring. To line SF1 material on the surface of spherical plain. Spherical surface of inner ring with chromium plating.
page 308  Angular contact spherical plain bearings. GAC...S	GAC...F	GE...SW	—	25-120	Separable outer and inner rings. Lubrication grooves and holes in the outer and inner rings. Both outer and inner rings are properly phosphorlylate-treated.
page 309  Spherical plain thrust bearings GX...S	GX...F	GE...AW	—	10-120	Separable shaft and housingwashers. Lubrication grooves and holes in the housing washer. Both shaft and housing washers are properly phosphorlylate-treated.
page 310  Spherical plain radial bearings with fitting crack. Dimension in inches. GEZ...ES GEZ...ES 2RS	GEZ...ES GEZ...ES 2RS	GE...ZO GE...ZO 2RS	SBB... SBB...2RS	12,7-152,4 12,7-152,4	As type GE...ES, but dimension inches.
page 312  Sherical plain radial bearings with two pices GE...XS K	—	—	SB...	12-150	Outer ring with two pieces in axial direction. Lubrication grooves and holes in the outer and inner rings. Both outer and inner rings are properly phosphorlylate-treated.
page 314  Sherical plain radial bearings with two seals, two pieces GEK...XS 2RS	—	—	—	25-60	Outer ring with two axial pieces and two seals. Spherical surface of inner ring with chromium plating. Lubrication grooves and holes in the inner ring.

(Continued)

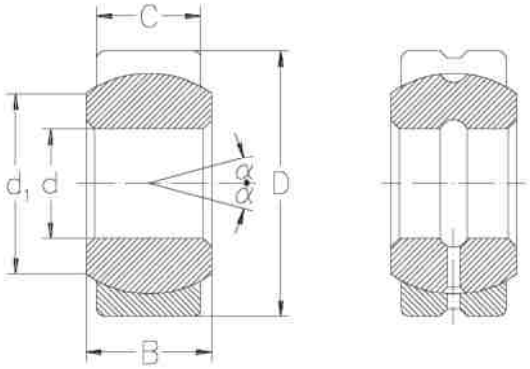
Name and number	Equivalent			Bore diameter range mm	Design feature
	SKF	INA	IKO		
page 315  Ball joint rod ends with one shank. SQD...C	—	—	—	5-16	Ball joint housing is an outer ring of spherical plain radial bearing. To line SF1 material on the surface of spherical plain.
page 316  winding shape ball joint rod ends with a dust cover SQ...C RS	—	—	—	5-22	Ball joint housing is a "L" shaped shank with dust cover with female tread. They are available for right or left hand thread. To line SF1 material on the surface of spherical plain.
page 318  Straight ball joint rod ends with a dust cover SQZ...C RS	—	—	—	5-22	Ball joint housing is an axial shank with dust cover with female thread. Stretching rod with right or left hand thread. To line SF1 material on the surface of spherical plain.
page 320 page 324  Combination rod ends SI...E SA...E	SI...E SA...E	GIR...DO GAR...DO	— —	5-12 5-12	Bearings with a streching rod. Streching rod with right or left-hand, male or female thread. It is made up of a spherical plain radial bearing of type GE...E and rod body.
page 320 page 324  Combination rod ends SI...ES SA...ES SI...ES 2RS SA...ES 2RS	SI...ES/SIA...ES SA...ES/SIA...ES — —	GIR...DO GAR...DO GIR...DO 2RS GAR...DO 2RS	— — — —	15-80 15-80 15-80 15-80	Bearings with a stretching rod. Stretching rod with right or left-hand, male or female thread. It is made up of a spherical plain radial bearing of type GE...ES and rod body. The housing with a lubrication hole or a grease nipple.
page 320 page 324  Combination rod ends SI...C SA...C SI...C 2RS SA...C 2RS	SI...C SA...C SI...TE 2RS SA...TE 2RS	GIR...UK GAR...UK GIR...UK 2RS GAR...UK 2RS	— — — —	15-80 15-80 35-80 35-80	Bearings with a stretching rod. Stretching rod with right or left-hand, male or female thread. It is made up of a spherical plain radial bearing of type GE...ES and rod body. To line SF1 material on the surface of spherical plain.
page 326  Ball joint ends for hydraulics with grease nipple, welding steel body TAC		GK...DO	—	10-18	Round bal joint ends to weld on the bottom of cylinder. Standard dimensions DIN 648. Sliding contact surface: steel/steel.

(Continued)

Name and number	Equivalent			Bore diameter range mm	Design feature
	SKF	INA	IKO		
 page 327 Screwed ball joint ends for hydraulics also with screw lamping device and grease nipple TAPR...N	SIR...ES	GIHR...DO GIHRK...DO	— —	20-120 20-120	Screwed ball joint ends with screw on shank and also with body equipped of clamping screws in hard execution. Sliding contact sueface: stell/steel.
 page 329 Ball joint ends for hydraulics with grease nipple, welding steel body TPN	SCF...ES	GF...DO	—	2020	Ball joint ends in strong execution to weld advisable with alternate loads. Sliding contact surface: steel/steel.
 page 330 Screw on ball joint ends for hydraulics with srew clamping device and grease nipple TAPR...DO	SIJ...ES	GIHO-K...DO	—	12-100	Ball joint ends with internal thread and clamping device through two screws on two sides Standard DIN 24555. Sliding contact surface: steel/steel
 page 331 Screw on ball joint ends for hydraulics with screw clamping device and grease nipple TAPR...CE	SIQG...ES	GIHN K...LO	—	12-125	Stout ball joint ends with internal thread Standard DIN 24338 with screws clamping device sliding contact surface: steel/steel.
 page 332 page 333 Rod ends POS... PHS...	SAKAC...M SIKAC...M	GAKFR...PB GIKFR...PB	POS... PHS...	5-30 5-30	Bearings with a stretching rod. Stretching rod with right or left-hand, male or female thread. To line bronze material on the surface of spherical plain. Spherical surface of ball with chromium plating.
 page 333 page 333 Maitanance-free rod POS...EC PHS...EC	SAKB...F SIKB...F	GAKFR...PW GIKFR...PW	POS...EC PHS...EC	5-30 5-30	Bearings with a stretching rod with right or left-hand, male or female thread. To line SF1 material on the surface of spherical plain. Spherical surface of ball with chromium plating.
 page 334 Sherical plain radial bearings SSR	—	—	—	5-30	Outer ring with single split in axial direction. Lubrication grooves and holes in the outer rings. Sliding contact surfaces: bronze/steel.
 page 335 Ball joints rod ends DIN 71802	—	—	—	8-19	Ball joints rod ends with shank and spring clamping.

Spherical plain radial bearings with fitting crack
Two seals and fitting crack, fitting groove

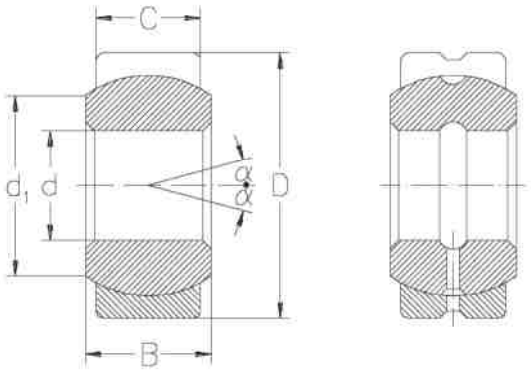
ISO 6124-1979, ISO 6125-1979



GE ...E
GEG...E

GE...ES
GEG...ES

Dimensions					Load ratings		α*	Designation	Weight
d	D	B	C	d_1 min.	dyn.	stat.			
mm					kN	kN		—	kg
4	12	5	3	6	2	10	16	**GE4E**	0,0033
5	14	6	4	7	3,4	17	13	**GE5S**	0,0038
6	14	6	4	8	3,4	17	13	**GE6S**	0,0042
8	16	8	5	10	5,5	27	15	**GE8E**	0,0075
10	19	9	6	13	8,1	40	12	**GE10E**	0,011
12	22	10	7	15	10	54	10	**GE12E**	0,015
15	26	12	9	18	17	85	8	**GE15E**	0,027
	26	12	9	18	17	85	8	**GE15ES 2RS**	0,027
17	30	14	10	20	21	106	10	**GE17ES**	0,041
	30	14	10	20	21	106	10	**GE17ES 2RS**	0,041
20	35	16	12	24	30	146	9	**GE20ES**	0,066
	35	16	12	24	30	146	9	**GE20ES 2RS**	0,066
25	42	20	16	29	48	240	7	**GE25ES**	0,119
	42	20	16	29	48	240	7	**GE25ES 2RS**	0,119
30	47	22	18	34	62	310	6	**GE30ES**	0,153
	47	22	18	34	62	310	6	**GE30ES 2RS**	0,153
35	55	25	20	39	80	400	6	**GE35ES**	0,233
	55	25	20	39	80	400	6	**GE35ES 2RS**	0,233
40	62	28	22	45	100	500	7	**GE40ES**	0,306
	62	28	22	45	100	500	7	**GE40ES 2RS**	0,306
45	68	32	25	50	127	640	7	**GE45ES**	0,427
	68	32	25	50	127	640	7	**GE45ES 2RS**	0,427
50	75	35	28	55	156	780	6	**GE50ES**	0,546
	75	35	28	55	156	780	6	**GE50ES 2RS**	0,546
60	90	44	36	66	245	1220	6	**GE60ES**	1,045
	90	44	36	66	245	1220	6	**GE60ES 2RS**	1,045
70	105	49	40	77	315	1560	6	**GE70ES**	1,55
	105	49	40	77	315	1560	6	**GE70ES 2RS**	1,55
80	120	55	45	88	400	2000	6	**GE80ES**	2,31
	120	55	45	88	400	2000	6	**GE80ES 2RS**	2,31
90	130	60	50	98	490	2450	5	**GE90ES**	2,75



GE ...E
GEG...E

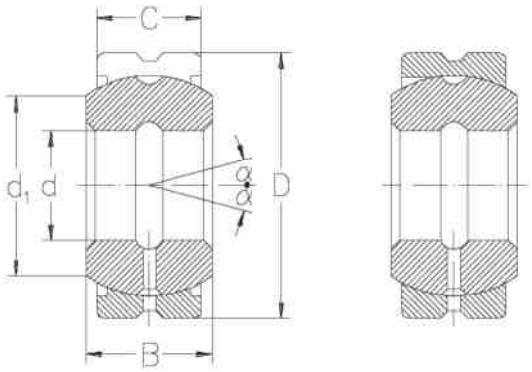
GE...ES
GEG...ES

Dimensions					Load ratings		α*	Designation	Weight
d	D	B	C	d_1 min.	dyn.	stati.			
mm					kN	kN		—	kg
90	130	60	50	98	490	2450	5	**GE90ES 2RS**	2,75
100	150	70	55	109	610	3050	7	**GE100ES**	4,45
	150	70	55	109	610	3050	7	**GE100ES 2RS**	4,45
110	160	70	55	120	655	3250	6	**GE110ES**	4,82
	160	70	55	120	655	3250	6	**GE110ES 2RS**	4,82
120	180	85	70	130	950	4750	6	**GE120ES**	8,05
	180	85	70	130	950	4750	6	**GE120ES 2RS**	8,05
140	210	90	70	150	1080	5400	7	**GE140ES**	11,02
	210	90	70	150	1080	5400	7	**GE140ES 2RS**	11,02
160	230	105	80	170	1370	6800	8	**GE160ES**	14,01
	230	105	80	170	1370	6800	8	**GE160ES 2RS**	14,01
180	260	105	80	192	1530	7650	6	**GE180ES**	18,65
	260	105	80	192	1530	7650	6	**GE180ES 2RS**	18,65
	260	105	80	192	1530	7650	6	**GE180DS**	18,65
200	290	130	100	212	2120	10600	7	**GE200ES**	28,03
	290	130	100	212	2120	10600	7	**GE200ES 2RS**	28,03
	290	130	100	212	2120	10600	7	**GE200DS**	28,03
220	320	135	100	238	2320	11600	8	**GE220ES**	35,91
	320	135	100	238	2320	11600	8	**GE220ES 2RS**	35,91
	320	135	100	238	2320	11600	8	**GE220DS**	35,91
240	340	140	100	265	2550	12700	8	**GE240ES**	39,91
	340	140	100	265	2550	12700	8	**GE240ES 2RS**	39,91
	340	140	100	265	2550	12700	8	**GE240DS**	39,91
260	370	150	110	285	3050	15300	7	**GE260ES**	51,84
	370	150	110	285	3050	15300	7	**GE260ES 2RS**	51,84
	370	150	110	285	3050	15300	7	**GE260DS**	51,84
280	400	155	120	310	3550	18000	6	**GE280ES**	65,36
	400	155	120	310	3550	18000	6	**GE280ES 2RS**	65,36
	400	155	120	310	3550	18000	6	**GE280DS**	65,36
300	430	165	120	330	3800	19000	7	**GE300ES**	78,07
	430	165	120	330	3800	19000	7	**GE300ES 2RS**	78,07
	430	165	120	330	3800	19000	7	**GE300DS**	78,07

*The sizes are not binding.

Spherical plain radial bearings with fitting crack
Two seals and fitting crack, fitting groove

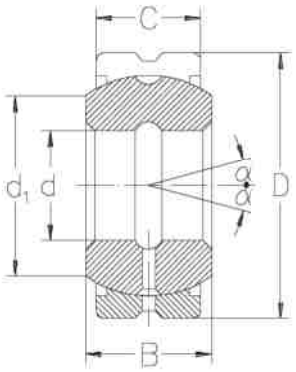
ISO 6124-1979, ISO 6125-1979



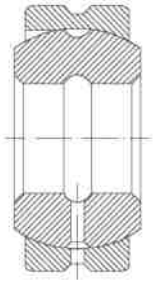
GE ...ES 2RS
GEG...ES2RS

GE...DS
GEG...DS

Dimensions					Load ratings		α*	Designation	Weight
d	D	B	C	d_1 min.	dyn.	stat.			
mm					kN	kN		—	kg
4	14	7	4	7	3,4	17	20	**GEG4E**	0,0045
5	16	9	5	8	5,5	27	21	**GEG5S**	0,0066
6	16	9	5	9	5,5	27	21	**GEG6S**	0,0081
8	19	11	6	11	8,1	40	21	**GEG8E**	0,014
10	22	12	7	13	10	54	18	**GEG10E**	0,021
12	26	15	9	16	17	85	18	**GEG12E**	0,033
15	30	16	10	19	21	106	16	**GEG15E**	0,049
	30	16	10	19	21	106	16	**GEG15ES 2RS**	0,049
17	35	20	12	21	30	146	19	**GEG17ES**	0,083
	35	20	12	21	30	146	19	**GEG17ES 2RS**	0,083
20	42	25	16	24	48	240	17	**GEG20ES**	0,153
	42	25	16	24	48	240	17	**GEG20ES 2RS**	0,153
25	47	28	18	29	62	310	17	**GEG25ES**	0,203
	47	28	18	29	62	310	17	**GEG25ES 2RS**	0,203
30	55	32	20	34	80	400	17	**GEG30ES**	0,304
	55	32	20	34	80	400	17	**GEG30ES 2RS**	0,304
35	62	35	22	39	100	500	16	**GEG35ES**	0,408
	62	35	22	39	100	500	16	**GEG35ES 2RS**	0,408
40	68	40	25	44	127	640	17	**GEG40ES**	0,542
	68	40	25	44	127	640	17	**GEG40ES-2RS**	0,542
45	75	43	28	50	156	780	15	**GEG45ES**	0,713
	75	43	28	50	156	780	15	**GEG45ES 2RS**	0,713
50	90	56	36	57	245	1220	17	**GEG50ES**	1,44
	90	56	36	57	245	1220	17	**GEG50ES 2RS**	1,44
60	105	63	40	67	315	1560	17	**GEG60ES**	1,60
	105	63	40	67	315	1560	17	**GEG60ES 2RS**	1,60
70	120	70	45	77	400	2000	16	**GEG70ES**	3,01
	120	70	45	77	400	2000	16	**GEG70ES 2RS**	3,01
80	130	75	50	87	490	2450	14	**GEG80ES**	3,64
	130	75	50	87	490	2450	14	**GEG80ES 2RS**	3,64



GE ...ES 2RS
GEG...ES2RS

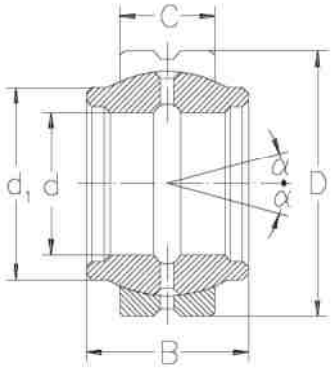


GE...DS
GEG...DS

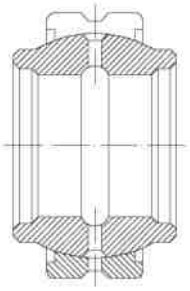
Dimensions					Load ratings		α*	Designation	Weight
d	D	B	C	d_1 min.	dyn.	stat.			
mm					kN	kN		—	kg
90	150	85	55	98	610	3050	15	**GEG90ES**	5,22
	150	85	55	98	610	3050	15	**GEG90ES 2RS**	5,22
100	160	85	55	110	655	3250	14	**GEG100ES**	6,05
	160	85	55	110	655	3250	14	**GEG100ES 2RS**	6,05
110	180	100	70	122	950	4750	12	**GEG110ES**	9,68
	180	100	70	122	950	4750	12	**GEG110ES 2RS**	9,68
120	210	115	70	132	1080	5400	16	**GEG120ES**	14,72
	210	115	70	132	1080	5400	16	**GEG120ES 2RS**	14,72
140	230	130	80	151	1370	6800	16	**GEG140ES**	19,01
	230	130	80	151	1370	6800	16	**GEG140ES 2RS**	19,01
160	260	135	80	176	1530	7650	16	**GEG160ES**	20,02
	260	135	80	176	1530	7650	16	**GEG160ES 2RS**	20,02
	260	135	80	176	1530	7650	16	**GEG160DS**	20,02
180	290	155	100	196	2120	10600	14	**GEG180ES**	32,21
	290	155	100	196	2120	10600	14	**GEG180ES 2RS**	32,21
	290	155	100	196	2120	10600	14	**GEG180DS**	32,21
200	320	165	100	220	2320	11600	15	**GEG200ES**	45,28
	320	165	100	220	2320	11600	15	**GEG200ES 2RS**	45,28
	320	165	100	220	2320	11600	15	**GEG200DS**	45,28
220	340	175	100	243	2550	12700	16	**GEG220ES**	51,12
	340	175	100	243	2550	12700	16	**GEG220ES 2RS**	51,12
	340	175	100	243	2550	12700	16	**GEG220DS**	51,12
240	370	190	110	263	3050	15300	15	**GEG240ES**	65,12
	370	190	110	263	3050	15300	15	**GEG240ES 2RS**	65,12
	370	190	110	263	3050	15300	15	**GEG240DS**	65,12
260	400	205	120	285	3550	18000	15	**GEG260ES**	82,44
	400	205	120	285	3550	18000	15	**GEG260ES 2RS**	82,44
	400	205	120	285	3550	18000	15	**GEG260DS**	82,44
280	430	210	120	310	3800	19000	15	**GEG280ES**	97,21
	430	210	120	310	3800	19000	15	**GEG280ES 2RS**	97,21
	430	210	120	310	3800	19000	15	**GEG280DS**	97,21

*The sizes are not binding.

Spherical plain radial bearings with wide inner ring and fitting crack
Two seals and wide inner ring and fitting crack
ISO 61204/2-1982



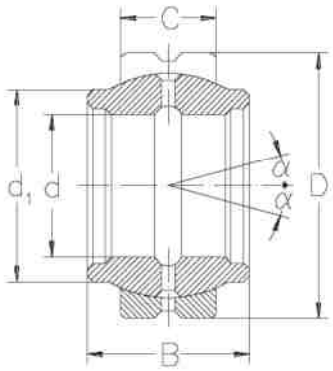
GEEW...ES



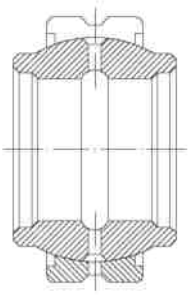
GEEW...ES2RS
GEEM...ES2RS

Dimensions d	D	B	C	d_1 min.	Load ratings dyn.	stat.	α*	Designation	Weight
mm					kN	kN		—	kg
12	22	12	7	15,5	10	54	4	**GEEW12ES**	0,022
	22	12	7	15,5	10	54	4	**GEEW12ES 2RS***	0,022
15	26	15	9	18,5	17	85	5	**GEEW15ES**	0,031
	26	15	9	18,5	17	85	5	**GEEW15ES 2RS**	0,031
16	28	16	9	20	17	85	4	**GEEW16ES**	0,035
	28	16	9	20	17	85	4	**GEEW16ES 2RS**	0,035
17	30	17	10	21	21	106	7	**GEEW17ES**	0,044
	30	17	10	21	21	106	7	**GEEW17ES 2RS**	0,044
20	35	20	12	25	30	146	4	**GEEW20ES**	0,071
	35	20	12	25	30	146	4	**GEEW20ES 2RS**	0,071
25	42	25	16	30,5	48	240	4	**GEEW25ES**	0,131
	42	25	16	30,5	48	240	4	**GEEW25ES 2RS**	0,131
30	47	30	18	34	62	310	4	**GEEW30ES**	0,168
	47	30	18	34	62	310	4	**GEEW30ES 2RS**	0,168
32	52	32	18	37	62	31	4	**GEEW32ES**	0,182
	52	32	18	37	62	31	4	**GEEW32ES 2RS**	0,182
35	55	35	20	40	80	400	4	**GEEW35ES**	0,253
	55	35	20	40	80	400	4	**GEEW35ES 2RS**	0,253
40	62	40	22	46	100	500	4	**GEEW40ES**	0,338
	62	40	22	46	100	500	4	**GEEW40ES 2RS**	0,338
45	68	45	25	52	127	640	4	**GEEW45ES**	0,481
	68	45	25	52	127	640	4	**GEEW45ES 2RS**	0,481
50	75	50	28	57	156	780	4	**GEEW50ES**	0,558
	75	50	28	57	156	780	4	**GEEW50ES 2RS**	0,558
60	90	60	36	68	245	1220	3	**GEEW60ES**	1,15
	90	60	36	68	245	1220	3	**GEEW60ES 2RS**	1,15
63	95	63	36	71,5	245	1220	4	**GEEW63ES**	1,23
	95	63	36	71,5	245	1220	4	**GEEW63ES**	1,23
70	105	70	40	78	315	1560	4	**GEEW70ES**	1,71
	105	70	40	78	315	1560	4	**GEEW70ES 2RS**	1,71

Spherical plain radial bearings with wide inner ring and fitting crack
Two seals and wide inner ring and fitting crack
ISO 61204/2-1982



GEEW...ES



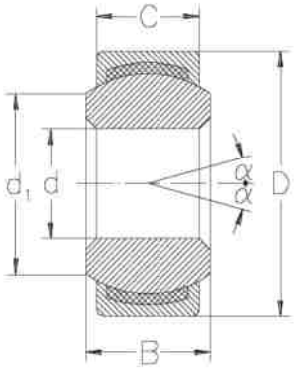
GEEW...ES2RS
GEEM...ES2RS

Dimensions d	D	B	C	d_1 min.	Load ratings dyn.	stat.	α*	Designation	Weight
mm					kN	kN		—	kg
80	120	80	45	91	400	2000	4	**GEEW80ES**	2,39
	120	80	45	91	400	2000	4	**GEEW80ES 2RS**	2,39
100	150	100	55	113	610	3050	4	**GEEW100ES**	4,80
	150	100	55	113	610	3050	4	**GEEW100ES 2RS**	4,80
125	180	125	70	138	950	4750	4	**GEEW125ES**	8,50
	180	125	70	138	950	4750	4	**GEEW125ES 2RS**	8,50
20	35	24	12	24	30	146	6	**GEEM20ES 2RS**	0,073
25	42	29	16	29	48	240	4	**GEEM25ES 2RS**	0,13
30	47	30	18	34	62	310	4	**GEEM30ES 2RS**	0,17
35	55	35	20	40	80	400	4	**GEEM35ES 2RS**	0,25
40	62	38	22	45	100	500	4	**GEEM40ES 2RS**	0,35
45	68	40	25	52	127	640	4	**GEEM45ES 2RS**	0,49
50	75	43	28	57	156	780	4	**GEEM50ES 2RS**	0,60
60	90	54	36	68	245	1220	3	**GEEM60ES 2RS**	1,15
70	105	65	40	78	315	1560	4	**GEEM70ES 2RS**	1,65
80	120	74	45	90	400	2000	4	**GEEM80ES 2RS**	2,50

*The sizes are not binding.

Maintenance free spherical plain radial bearings

GB304.7-81, GB304.9-81 (ISO6124-1979, ISO6125-1979)

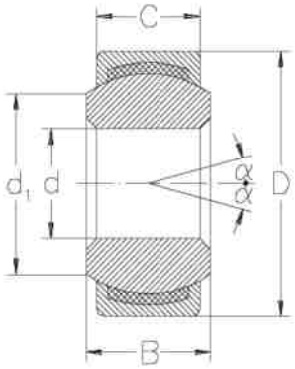


GE...C
GE...ET2RS

Dimensions d	D	B	C	d_1 min.	Load ratings dyn.	stat.	α*	Designation	Weight
mm					kN	kN		—	kg
4	12	5	3	6	2,1	5,4	16	**GE4C**	0,0033
5	14	6	4	7	3,6	9,1	13	**GE5C**	0.0038
6	14	6	4	8	3,6	9,1	13	**GE6C**	0,0042
8	16	8	5	10	5,8	14	15	**GE8C**	0,0075
10	19	9	6	13	8,6	21	12	**GE10C**	0,011
12	22	10	7	15	11	28	10	**GE12C**	0.015
15	26	12	9	18	18	45	8	**GE15C**	0,027
17	30	14	10	20	22	56	10	**GE17C**	0,041
20	35	16	12	24	31	78	9	**GE20C**	0,066
	35	16	12	24	31	78	9	**GE20ET 2RS**	0,066
25	42	20	16	29	51	127	7	**GE25C**	0,119
	42	20	16	29	51	127	7	**GE25ET 2RS**	0,119
30	47	22	18	34	65	166	6	**GE30C**	0,163
	47	22	18	34	65	166	6	**GE30ET 2RS**	0,163
35	55	25	20	-	110	220	6	**GE35ET 2RS**	0,25
40	62	28	22	-	140	280	6	**GE40ET 2RS**	0,30
45	68	32	25	-	180	350	6	**GE45ET 2RS**	0,35
50	75	35	28	-	220	430	6	**GE50ET 2RS**	0,50
60	90	44	36	-	340	690	6	**GE60ET 2RS**	1.00
70	105	49	40	-	430	870	6	**GE70ET 2RS**	1,40
80	120	55	45	-	560	1140	6	**GE80ET 2RS**	2,00
90	130	60	50	-	690	1350	6	**GE90ET 2RS**	2,50

Maintenance free spherical plain radial bearings

GB304.7-81, GB304.9-81 (ISO6124-1979, ISO6125-1979)



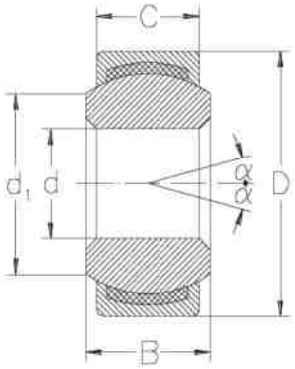
GE...C
GE...ET2RS

Dimensions d	D	B	C	d_1 min.	Ratings load dyn.	stat.	α*	Designation	Weight
mm					kN	kN		—	kg
100	150	70	55	-	850	1700	6	**GE100ET 2RS**	4,00
110	160	70	55	-	900	1850	6	**GE110ET 2RS**	4,50
120	180	85	70	-	1300	2700	6	**GE120ET 2RS**	7,20
140	210	90	70	-	1500	3000	6	**GE140ET 2RS**	10,00

*The sizes are not binding.
ET/C - To line SF1 material on the surface of spherical plain.

Maintenance free spherical plain radial bearings

ISO6124-1979, ISO6125-1979

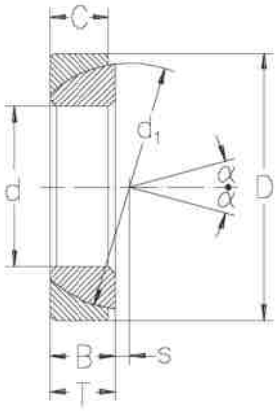


GEG...C
GEG...ET2RS

Dimensions d	D	B	C	d_1 min.	Load ratings dyn.	stat.	α*	Designation	Weight
mm					kN	kN		—	kg
4	14	7	4	7	3,6	9,1	20	**GEG4C**	0,0045
5	16	9	5	8	5,8	14	21	**GEG5C**	0,0066
6	16	9	5	9	5,8	14	21	**GEG6C**	0,0081
8	19	11	6	11	8,8	21	21	**GEG10C**	0,014
10	22	12	7	13	11	28	18	**GEG10C**	0,021
12	26	15	9	16	18	45	18	**GEG12C**	0,033
15	30	16	10	19	22	56	16	**GEG15C**	0,049
17	35	20	12	21	31	78	19	**GEG17C**	0,083
20	42	25	16	24	51	127	17	**GEG20C**	0,153
25	47	28	18	29	65	166	17	**GEG25C**	0,203
30	55	32	20	34	83	212	17	**GEG30C**	0,304
	55	32	20	-	110	220	17	**GEG30ET 2RS**	0,30
35	62	35	22	-	140	270	17	**GEG35ET 2RS**	0,35
40	68	40	25	-	180	350	15	**GEG40ET 2RS**	0,50
45	75	43	28	-	220	430	15	**GEG45ET 2RS**	0,60
50	90	56	36	-	340	680	15	**GEG50ET 2RS**	1,40
60	105	63	40	-	430	850	15	**GEG60ET 2RS**	2,00
70	120	70	45	-	550	1100	16	**GEG70ET 2RS**	2,80
80	130	75	50	-	680	1350	14	**GEG80ET 2RS**	3,40
90	150	85	55	-	850	1700	15	**GEG90ET 2RS**	5,00
100	160	85	55	-	900	1800	14	**GEG100ET 2RS**	5,50
110	180	100	70	-	1300	2700	12	**GEG110ET 2RS**	9,00
120	210	115	70	-	1500	3000	15	**GEG120ET 2RS**	14,50
140	230	130	80	-	1900	3500	15	**GEG140ET 2RS**	18,20

*The sizes are not binding.
ET/C - To line SF1 material on the surface of spherical plain.

Angular contact spherical plain bearings

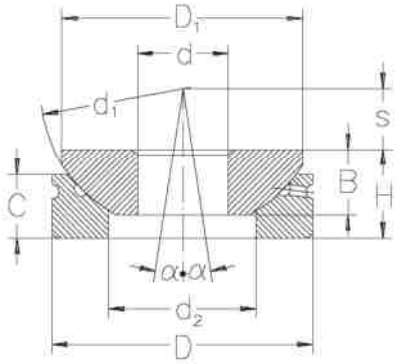


GAC...S

Dimensions d	D	B	C	T	d_1	S	Load ratings dyn.	stat.	α*	Designation	Weight
mm							kN	kN		—	kg
25	47	15	14	15	42	0,6	47,5	236	3,5	**GAC25S**	0,148
30	55	17	15	17	49,5	1,3	63	315	3	**GAC30S**	0,208
35	62	18	16	18	55,5	2,1	76,5	390	3	**GAC35S**	0,268
40	68	19	17	19	62	2,8	90	450	3	**GAC40S**	0,327
45	75	20	18	20	68,5	3,5	106	530	3	**GAC45S**	0,416
50	80	20	19	20	74	4,3	118	585	3	**GAC50S**	0,455
60	95	23	21	23	88,5	5,7	160	800	3	**GAC60S**	0,714
70	110	25	23	25	102	7,2	208	1040	2,5	**GAC70S**	1,04
80	125	29	25,5	29	115	8,6	250	1250	2,5	**GAC80S**	1,54
90	140	32	28	32	128,5	10,1	320	1600	2,5	**GAC90S**	2,09
100	150	32	31	32	141	11,6	345	1760	2	**GAC100S**	2,34
110	170	38	34	38	155	13	475	2360	2	**GAC110S**	3,68
120	180	38	37	38	168	14,5	510	2550	2	**GAC120S**	3,97

*The sizes are not binding.
On request: sliding contact surface steel / PTFE, example GX...C.

Spherical plain thrust bearings

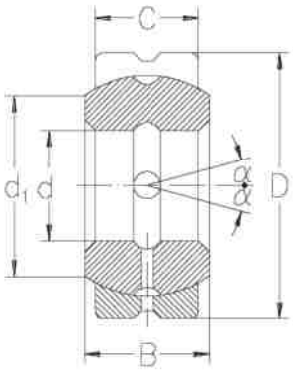


GX...S

Dimensions d	D	H	B	C	d_1	d_2	D_1	S	Load ratings dyn.	stat.	α*	Designation	Weight
mm									kN	kN		—	kg
10	30	9,5	7,5	7	32	15,5	27,5	7	24	120	9	**GX10S**	0,036
12	35	13	9,5	9,3	38	18	32	8	32,5	163	8	**GX12S**	0,072
15	42	15	11	10,8	46	22,5	39	10	52	260	8	**GX15S**	0,108
17	47	16	11,8	11,2	52	27	43,5	11	58,5	300	10	**GX17S**	0,137
20	55	20	14,5	13,8	60	31	50	12,5	75	375	9	**GX20S**	0,246
25	62	22,5	16,5	16,7	68	34,5	58,5	14	129	640	7	**GX25S**	0,415
30	75	26	19	19	82	42	70	17,5	170	850	7	**GX30S**	0,614
35	90	28	22	20,7	98	50,5	84	22	260	1290	8	**GX35S**	0,973
40	105	32	27	21,5	114	59	97	24,5	375	1860	9	**GX40S**	1,59
45	120	36,5	31	25,5	128	67	110	27,5	490	2450	9	**GX45S**	2,24
50	130	42,5	33	30,5	139	70	120	30	655	3250	7	**GX50S**	3,14
60	150	45	37	34	160	84	140	35	735	3650	8	**GX60S**	4,63
70	160	50	42	36,5	176	94,5	153	35	800	4050	8	**GX70S**	5,37
80	180	50	43,5	38	197	107,5	172	42,5	1040	5200	8	**GX80S**	6,91
100	210	59	51	46	222	127	198	45	1200	6000	8	**GX100S**	10,98
120	230	64	53,5	50	250	145	220	52,5	1250	6200	6	**GX120S**	13,97

*The sizes are not binding.
On request: sliding contact surface steel / PTFE, example GX...C.

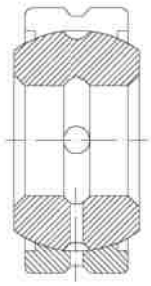
Spherical plain radial bearings dimension in inches with fitting crack
Two seals and fitting crack



GE.Z....ES

Dimensions d	D	B	C	d_1 min.	Load ratings dyn.	stat.	α*	Designation	Weight
mm					kN	kN		—	kg
12,7	22,225	11,1	9,525	14,1	13,7	41,5	6	**GEZ12ES**	0,022
15,875	26,988	13,894	11,913	18,3	22,0	65,5	6	**GEZ15ES**	0,036
19,05	31,75	16,662	14,275	21,8	31,5	95,0	6	**GEZ19ES**	0,053
22,225	36,513	19,431	16,662	25,4	4,25	127	6	**GEZ22ES**	0,085
25,4	41,275	22,225	19,05	27,6	56,0	166	6	**GEZ25ES**	0.121
	41,275	22,225	19,05	27,6	56,0	166	6	**GEZ25ES 2RS**	0.121
31,75	50,8	27,762	23,8	36,0	86,5	260	6	**GEZ31ES**	0,232
	50,8	27,762	23,8	36,0	86,5	260	6	**GEZ31ES 2RS**	0,232
34,925	55,563	30,15	26,187	38,6	102	310	6	**GEZ34ES**	0,351
	55,563	30,15	26,187	38,6	102	310	6	**GEZ34ES 2RS**	0,351
38,1	61,913	33,325	28,575	41,2	125	375	6	**GEZ38ES**	0,422
	61,913	33,325	28,575	41,2	125	375	6	**GEZ38ES 2RS**	0,422
44,5	71,438	38,887	33,325	50,7	170	510	6	**GEZ44ES**	0,641
	71,438	38,887	33,325	50,7	170	510	6	**GEZ44ES 2RS**	0,641
50,8	80,963	44,45	38,1	57,9	224	670	6	**GEZ50ES**	0,932
	80,963	44,45	38,1	57,9	224	670	6	**GEZ50ES 2RS**	0,932
57,15	90,488	50,013	42,85	64,9	280	850	6	**GEZ57ES**	1,33
	90,488	50,013	42,85	64,9	280	850	6	**GEZ57ES 2RS**	1,33
63,5	100,013	55,55	47,625	73,3	355	1060	6	**GEZ63ES**	1,85
	100,013	55,55	47,625	73,3	355	1060	6	**GEZ63ES 2RS**	1,85
69,85	111,125	61,112	52,375	79,1	415	1250	6	**GEZ69ES**	2,42
	111,125	61,112	52,375	79,1	415	1250	6	**GEZ69ES 2RS**	2,42
76,2	120,65	66,675	57,15	86,8	500	1500	6	**GEZ76ES**	3,10
	120,65	66,675	57,15	86,8	500	1500	6	**GEZ76ES 2RS**	3,10
82,55	130,175	72,238	61,9	94,5	585	1760	6	**GEZ82ES**	3,82
	130,175	72,238	61,9	94,5	585	1760	6	**GEZ82ES 2RS**	3,82
88,9	139,7	77,775	66,675	101,6	680	2040	6	**GEZ88ES**	4,79
	139,7	77,775	66,675	101,6	680	2040	6	**GEZ88ES 2RS**	4,79

Spherical plain radial bearings dimension in inches with fitting crack
Two seals and fitting crack

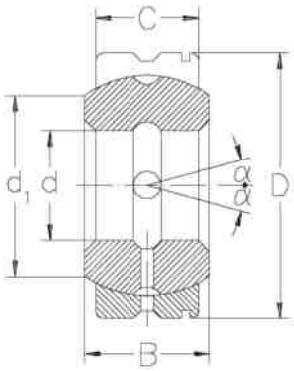


GEZ...ES2RS

Dimensions d	D	B	C	d_1 min.	Lload ratings dyn.	stat.	α*	Designation	Weight
mm					kN	kN		—	kg
95,25	149,225	83,337	71,425	108,7	780	2360	6	**GEZ95ES**	5,78
	149,225	83,337	71,425	108,7	780	2360	6	**GEZ95ES 2RS**	5,78
101,6	158,75	88,9	76,2	115,8	900	2650	6	**GEZ101ES**	6,99
	158,75	88,9	76,2	115,8	900	2650	6	**GEZ101ES 2RS**	6,99
107,95	168,275	94,463	80,95	122,8	1000	3000	6	**GEZ107ES**	8,41
	168,275	94,463	80,95	122,8	1000	3000	6	**GEZ107ES 2RS**	8,41
114,3	177,8	100,013	85,725	130,6	1120	3400	6	**GEZ114ES**	9,79
	177,8	100,013	85,725	130,6	1120	3400	6	**GEZ114ES 2RS**	9,79
120,65	187,325	105,562	90,475	137,6	1250	3750	6	**GEZ120ES**	11,5
	187,325	105,562	90,475	137,6	1250	3750	6	**GEZ120ES 2RS**	11,5
127	196	111,125	95,25	145,3	1400	4150	6	**GEZ127ES**	13,5
	196	111,125	95,25	145,3	1400	4150	6	**GEZ127ES 2RS**	13,5
152,4	222,25	120,65	104,775	168,2	1730	5200	5	**GEZ152ES**	17,5
	222,25	120,65	104,775	168,2	1730	5200	5	**GEZ152ES 2RS**	17,5

*The sizes are not binding.

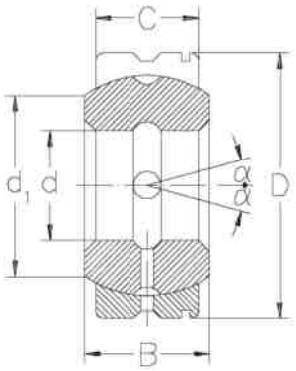
Spherical plain radial bearings with two piece outer ring



GE.....XSK

Dimensions d	D	B	C	d_1 min.	Load ratings dyn.	stat.	α*	Designation	Weight
mm					kN	kN		—	kg
12	22	11	9	14	12,9	39,2	7	**GE12XS K**	0,019
15	26	13	11	17,5	19,5	57,8	6	**GE15XS K**	0,028
20	32	16	14	23	31,3	94,8	4	**GE20XS K**	0,053
22	37	19	16	25,5	40,3	122	6	**GE22XS K**	0,085
25	42	21	18	29	51,1	155	5	**GE25XS K**	0,116
30	50	27	23	36	81,2	248	6	**GE30XS K**	0,225
35	55	30	26	40	103	314	5	**GE35XS K**	0,302
40	62	33	28	44	122	370	6	**GE40XS K**	0,375
45	72	36	31	50,5	152	461	5	**GE45XS K**	0,598
50	80	42	36	58,5	225	622	5	**GE50XS K**	0,869
55	90	47	40	64,5	253	768	6	**GE55XS K**	1,26
60	100	53	45	72,5	321	980	6	**GE60XS K**	1,72
65	105	55	47	76	350	1060	5	**GE65XS K**	2,05
70	110	58	50	81,5	396	1220	5	**GE70XS K**	2,23
75	120	64	55	89,5	478	1450	5	**GE75XS K**	3,01
80	130	70	60	97,5	571	1730	5	**GE80XS K**	3,98
85	135	74	63	100,5	624	1890	6	**GE85XS K**	4,31
90	140	76	65	105,5	670	2030	5	**GE90XS K**	4,72
95	150	82	70	113,5	776	2350	5	**GE95XS K**	6,05
100	160	88	75	121,5	891	2700	5	**GE100XS K**	7,43
110	170	93	80	130	1010	3070	5	**GE110XS K**	8,54
115	180	98	85	132,5	1110	3370	5	**GE115XS K**	10,3

Spherical plain radial bearings with two piece outer ring

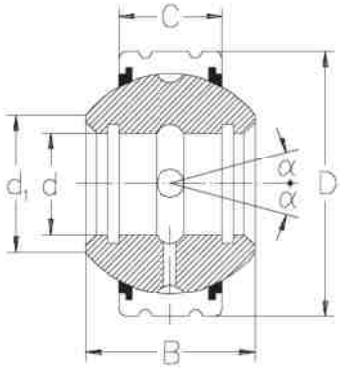


GE.....XSK

Dimensions d	D	B	C	d_1 min.	Load ratings dyn.	stat.	α*	Designation	Weight
mm					kN	kN		—	kg
120	190	105	90	140	1250	3780	6	**GE120XS K**	12,4
130	200	110	95	148,5	1390	4220	5	**GE130XS K**	13,8
150	220	120	105	166	1710	5170	5	**GE150XS K**	17,1

*The sizes are not binding.

Spherical plain radial bearings with two seals and two piece outer ring

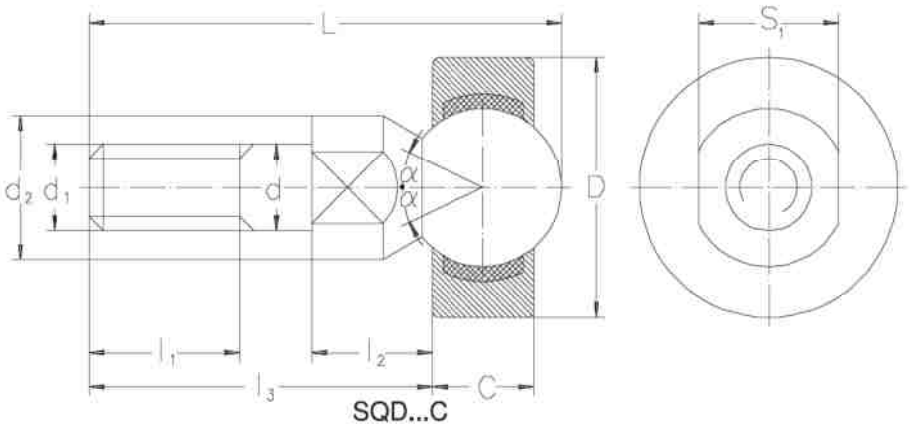


GEK.....XS2ES

Dimensions d	D	B	C	d_1 min.	Load ratings dyn.	stat.	α*	Designation	Weight
mm					kN	kN		—	kg
25	68	40	28	30	117	590	19	**GEK25XS 2RS**	0,516
30	70	47	32	37,3	163	813	19	**GEK30XS 2RS**	0,785
35	80	54	38	44,5	226	1130	17	**GEK35XS 2RS**	1,23
40	90	64	44	48	298	1490	19	**GEK40XS 2RS**	1,83
45	100	72	52	54	398	1990	17	**GEK45XS 2RS**	2,56
50	110	80	58	60	493	2450	17	**GEK50XS 2RS**	3,43
55	125	90	64	63,2	598	2990	19	**GEK55XS 2RS**	5,02
60	135	98	72	69,3	732	3660	17	**GEK60XS 2RS**	6,43

*The sizes are not binding.

Ball joint rod ends with one shank

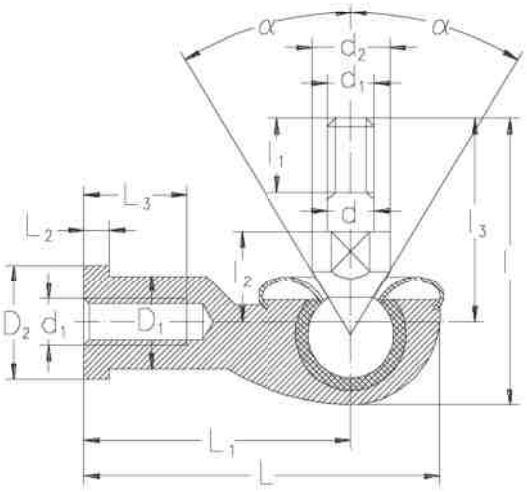


SQD...C

Dimensions										Load ratings		α*	Designation	Weight
d	d1	d2min	Lmax	l1min	l2	l3 max	S1	C	D	dyn.	stat.			
mm										kN	kN		—	kg
5	M5	9	27,5	8	8	19	7	6	16	2,4	6,2	25	**SQD5**C	0,014
6	M6	10	33,5	11	8,8	23,8	8	6,75	18	3,2	8,1	25	**SQD6C**	0,021
8	M8	12	41	12	11,6	28,6	10	9	22	5,5	14	25	**SQD8C**	0,042
10	M10x1,25	14	49	15	14,2	34,2	11	10,5	26	7,8	20	25	**SQD10C**	0,067
12	M12x1,25	19	55,1	17	15,1	38,1	16	12	30	10	27	25	**SQD12C**	0,108
14	M14x1,25	19	70,7	22	16,8	51,3	16	13,5	34	13	35	20	**SQD14C**	0,167
16	M16x1,25	22	76,3	23	18	54,5	18	15	38	17	45	20	**SQD16C**	0,238

*The sizes are not binding.
To line SF1 material on the surface of spherical plain.

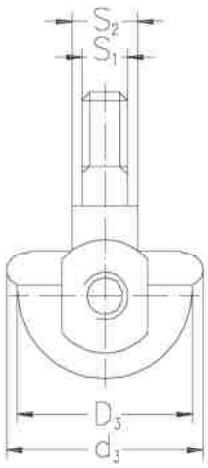
Winding shape ball joint rod ends



SQ....C RS

Dimensions d	d1	d2 min	d3 max	l max	l1 min	l2	l3 max	S1	L max	L1
mm										
5	M5	9	20	30	8	10	21	7	36	27
	M5	9	20	30	8	10	21	7	36	27
6	M6	10	20	36	11	11	26	8	40,5	30
	M6	10	20	36	11	11	26	8	40,5	30
8	M8	12	24	43,5	12	14	31	10	49	36
	M8	12	24	43,5	12	14	31	10	49	36
10	M10x1,25	14	30	51,5	15	17	37	11	58	43
	M10x1,25	14	30	51,5	15	17	37	11	58	43
12	M12x1,25	19	32	57,5	17	19	42	16	66	50
	M12x1,25	19	32	57,5	17	19	42	16	66	50
14	M14x1,5	19	38	73,5	22	21,5	56	16	75	57
	M14x1,5	19	38	73,5	22	21,5	56	16	75	57
16	M16x1,5	22	44	79,5	23	23,5	60	18	84	64
	M16x1,5	22	44	79,5	23	23,5	60	18	84	64
18	M18x1,5	25	45	90	25	26,5	68	21	93	71
	M18x1,5	25	45	90	25	26,5	68	21	93	71
20	M20x1,5	29	50	90	25	27	68	24	99	77
	M20x1,5	29	50	90	25	27	68	24	99	77
22	M22x1,5	29	52	95	26	28	70	24	109	84
	M22x1,5	29	52	95	26	28	70	24	109	84

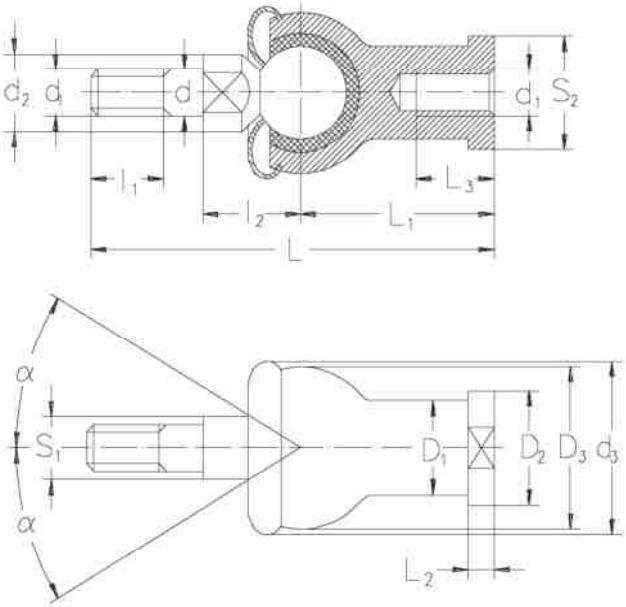
Winding shape ball joint rod ends



L_2 max	L_3 min	D_1 max	D_2 max	D_3 max	S_2	Load ratings dyn.	Load ratings stat.	α	Designation	Weight
						kN	kN		—	kg
4	14	9	12	18	10	2,7	9,2	25	**SQ5C**	0,025
4	14	9	12	18	10	2,7	9,2	25	**SQ5C RS**	0,025
5	14	10	13	20	10	3,6	12	25	**SQ6C**	0,039
5	14	10	13	20	10	3,6	12	25	**SQ6C RS**	0,039
5	17	12,5	16	25	13	5,7	19	25	**SQ8C**	0,068
5	17	12,5	16	25	13	5,7	19	25	**SQ8C RS**	0,068
6,5	21	15	19	29	16	8,2	27	25	**SQ10C**	0,112
6,5	21	15	19	29	16	8,2	27	25	**SQ10C RS**	0,112
6,5	25	17,5	22	31	18	11	37	25	**SQ12C**	0,164
6,5	25	17,5	22	31	18	11	37	25	**SQ12C RS**	0,164
8	26	20	25	35	21	14	48	25	**SQ14C**	0,254
8	26	20	25	35	21	14	48	25	**SQ14C RS**	0,254
8	32	22	27	39	24	16	53	20	**SQ16C**	0,336
8	32	22	27	39	24	16	53	20	**SQ16C RS**	0,336
10	34	25	31	44	27	18	61	20	**SQ18C**	0,464
10	34	25	31	44	27	18	61	20	**SQ18C RS**	0,464
10	35	27,5	34	44	30	18	612	20	**SQ20C**	0,538
10	35	27,5	34	44	30	18	612	20	**SQ20C RS**	0,538
12	41	30	37	50	30	22	75	16	**SQ22C**	0,713
12	41	30	37	50	30	22	75	16	**SQ22C RS**	0,713

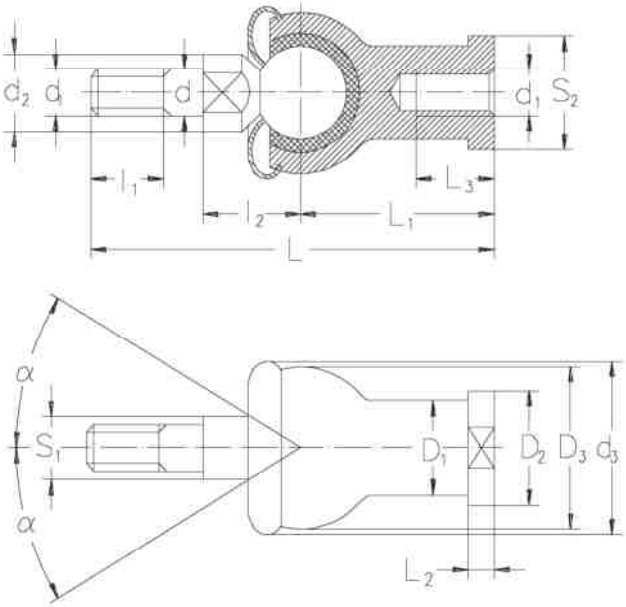
*The sizes are not binding.
Available with thread M1,5 (SQ10 and SQ12) and M2 (SQ14 and SQ16)
C - to line SF1 material on the surface of spherical plain. The shank of ball joint housing may be left - hand thread, for left - hand thread, suffix "L" is added to bearings number and thread sign, e. g. SQL6C, M6L - 6H.

Straightball joint rod ends



SQZ ...C RS

Dimensions d	d1	d2 min	d3 max	l1 min	l2	S1	L max	L1	L2 max	L3 min
mm										
5	M5	9	20	8	11	7	46	24	4	12
	M5	9	20	8	11	7	46	24	4	12
6	M6	10	20	11	12,2	8	55,2	28	5	15
	M6	10	20	11	12,2	8	55,2	28	5	15
8	M8	12	24	12	16	10	65	32	5	16
	M8	12	24	12	16	10	65	32	5	16
10	M10x1,25	14	30	15	19,5	11	74,5	35	6,5	18
	M10x1,25	14	30	15	19,5	11	74,5	35	6,5	18
12	M12x1,25	19	32	17	21	16	84	40	6,5	20
	M12x1,25	19	32	17	21	16	84	40	6,5	20
14	M14x1,5	19	38	22	23,5	16	104,5	45	8	25
	M14x1,5	19	38	22	23,5	16	104,5	45	8	25
16	M16x1,5	22	44	23	25,5	18	112	50	8	27
	M16x1,5	22	44	23	25,5	18	112	50	8	27
18	M18x1,5	25	45	25	31	21	130,5	58	10	32
	M18x1,5	25	45	25	31	21	130,5	58	10	32
20	M20x1,5	29	50	25	31	24	133	63	10	38
	M20x1,5	29	50	25	31	24	133	63	10	38
22	M22x1,5	29	52	26	33	24	145	70	12	43
	M22x1,5	29	52	26	33	24	145	70	12	43

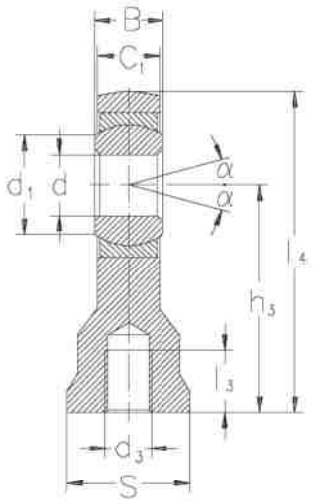


SQZ ...C RS

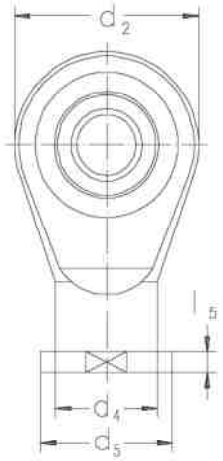
D_1 max	D_2 max	D_3 max	S_2	Load ratings dyn.	stat.	α*	Designation	Weight
mm				kN	kN		—	kg
9	12	17	10	1,7	5,7	15	**SQZ5C**	0,025
9	12	17	10	1,7	5,7	15	**SQZ5C RS**	0,025
10	13	20	10	2,2	7,5	15	**SQZ6C**	0,040
10	13	20	10	2,2	7,5	15	**SQZ6C RS**	0,040
12,5	16	24	13	3,3	11	15	**SQZ8C**	0.075
12,5	16	24	13	3,3	11	15	**SQZ8C RS**	0.075
15	19	28	16	4,8	16	15	**SQZ10C**	0,121
15	19	28	16	4,8	16	15	**SQZ10C RS**	0,121
17,5	22	32	18	6,6	22	15	**SQZ12C**	0,187
17,5	22	32	18	6,6	22	15	**SQZ12C RS**	0,187
20	25	36	21	8,7	29	11	**SQZ14C**	0,277
20	25	36	21	8,7	29	11	**SQZ14C RS**	0,277
22	27	40	24	10	33	11	**SQZ16C**	0,361
22	27	40	24	10	33	11	**SQZ16C RS**	0,361
25	31	45	27	11	37	11	**SQZ18C**	0,539
25	31	45	27	11	37	11	**SQZ18C RS**	0,539
27,5	34	45	30	11	37	7,5	**SQZ20C**	0,575
27,5	34	45	30	11	37	7,5	**SQZ20C RS**	0,575
30	37	50	30	14	46	7,5	**SQZ22C**	0,757
30	37	50	30	14	46	7,5	**SQZ22C RS**	0,757

*The sizes are not binding.
C - to line SF1 material on the surface of spherical plain. The shank of ball joint housing may be left - hand thread, for left - hand thread, suffix "L" is added to bearings number and thread sign, eg. SQL6C, M6L - 6H.

Combination (series e) rod ends
(ISO 6126 - 1982)

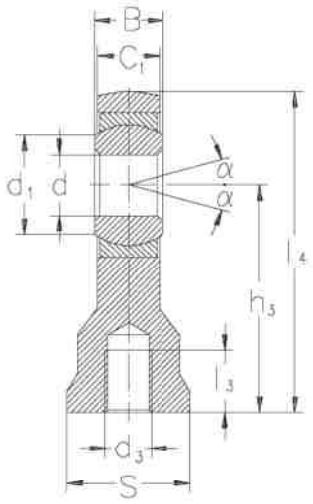


Dimensions d	B	C1 max	d1 min	d2 max	d3	h1	l3 min	l4 max	l5 max	d4 max
mm										
5	6	4,5	7	21	M5	30	11	42	5	10
6	6	4,5	8	21	M6	30	11	42	5	11
	6	4,5	8	21	M6	30	11	42	5	11
8	8	6,5	10	24	M8	36	15	49	5	13
	8	6,5	10	24	M8	36	15	49	5	13
10	9	7,5	13	29	M10	43	15	58	6,5	16
	9	7,5	13	29	M10	43	15	58	6,5	16
12	10	8,5	15	34	M12	50	18	67	7	18
	10	8,5	15	34	M12	50	18	67	7	18
15	12	10,5	18	40	M14	61	21	81	8	21
	12	10,5	18	40	M14	61	21	81	8	21
	12	10,5	18	40	M14	61	21	81	8	21
17	14	11,5	20	46	M16	67	24	90	10	24
	14	11,5	20	46	M16	67	24	90	10	24
	14	11,5	20	48	M16	67	24	90	10	24
20	16	13,5	24	53	M20x1,5	77	30	104	10	28
	16	13,5	24	53	M20x1,5	77	30	104	10	28
	16	13,5	24	53	M20x1,5	77	30	104	10	28
25	20	18	29	64	M24x2	94	36	126	12	35
	20	18	29	64	M24x2	94	36	126	12	35
	20	18	29	64	M24x2	94	36	126	12	35
30	22	20	34	73	M30x2	110	45	147	15	42
	22	20	34	73	M30x2	110	45	147	15	42
	22	20	34	73	M30x2	110	45	147	15	42
35	25	22	39	82	M36x3	125	60	167	15	48
	25	22	39	82	M36x3	125	60	167	15	48
	25	22	39	82	M36x3	125	60	167	15	48
40	28	24	45	92	M39x3	142	65	190	18	52
	28	24	45	92	M39x3	142	65	190	18	52
	28	24	45	92	M39x3	142	65	190	18	52
45	32	28	50	102	M42x3	145	65	199	20	58
	32	28	50	102	M42x3	145	65	199	20	58

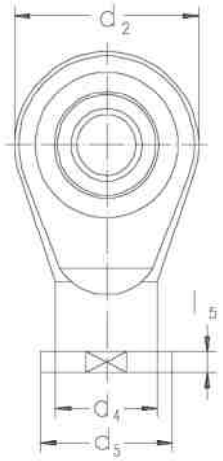


d_5 max	S	Load ratings dyn.	stat.	α*	Designation	Weight
mm		kN	kN		—	kg
13	10	3,4	8,1	13	**SI5E**	0,016
13	11	3,4	8,1	13	**SI6E**	0,017
13	11	3,4	8,1	13	**SI6C****	0,017
16	13	5,5	12,9	15	**SI8E**	0,035
16	13	5,5	12,9	15	**SI8C****	0,035
19	16	8,1	17,6	12	**SI10E**	0,061
19	16	8,1	17,6	12	**SI10C****	0,061
22	18	10,8	24,5	10	**SI12E**	0,096
22	18	10,8	24,5	10	**SI12C****	0,096
26	21	17	36	8	**SI15ES**	0,162
26	21	17	36	8	**SI15ES 2RS**	0,162
26	21	17	36	8	**SI15C****	0,162
29	24	21	45	10	**SI17ES**	0,233
29	24	21	45	10	**SI17ES 2RS**	0,233
29	24	21	45	10	**SI17C****	0,233
34	30	30	60	9	**SI20ES**	0,324
34	30	30	60	9	**SI20ES 2RS**	0,324
34	30	30	60	9	**SI20C****	0,324
42	36	48	83	7	**SI25ES**	0,625
42	36	48	83	7	**SI25ES 2RS**	0,625
42	36	48	83	7	**SI25C****	0,625
50	46	62	110	6	**SI30ES**	0,976
50	46	62	110	6	**SI30ES 2RS**	0,976
50	46	62	110	6	**SI30C****	0,976
58	55	80	146	6	**SI35ES**	1,52
58	55	80	146	6	**SI35ES 2RS**	1,52
58	55	80	146	6	**SI35C 2RS****	1,52
65	60	100	180	7	**SI40ES**	2,06
65	60	100	180	7	**SI40ES 2RS**	2,06
65	60	100	180	7	**SI40C 2RS****	2,06
70	65	127	240	7	**SI45ES**	2,72
70	65	127	240	7	**SI45ES 2RS**	2,72

Combination (series e) rod ends
(ISO 6126 - 1982)



Dimensions d	B	C1 max	d1 min	d2 max	d3	h1	l3 min	l4 max	l5 max	d4 max
mm										
45	32	28	50	102	M42x3	145	65	199	20	58
50	35	31	55	112	M45x3	160	68	221	20	62
	35	31	55	112	M45x3	160	68	221	20	62
	35	31	55	112	M45x3	160	68	221	20	62
60	44	39	66	135	M52x3	175	70	247	20	70
	44	39	66	135	M52x3	175	70	247	20	70
	44	39	66	135	M52x3	175	70	247	20	70
70	49	43	77	160	M56x4	200	80	283	20	80
	49	43	77	160	M56x4	200	80	283	20	80
	49	43	77	160	M56x4	200	80	283	20	80
80	55	48	88	180	M64x4	230	85	325	25	95
	55	48	88	180	M64x4	230	85	325	25	95
	55	48	88	180	M64x4	230	85	325	25	95

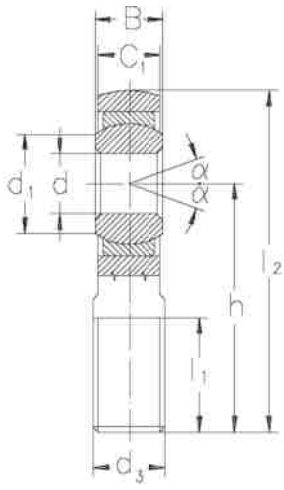


d_5 max	S	Load ratings dyn.	stat.	α*	Designation	Weight
mm		kN	kN	~	—	kg
70	65	127	240	7	**SI45C 2RS****	2,72
75	70	156	290	6	**SI50ES**	3,57
75	70	156	290	6	**SI50ES 2RS**	3,57
75	70	156	290	6	**SI50C 2RS****	3,57
88	80	245	450	6	**SI60ES**	5,63
88	80	245	450	6	**SI60ES 2RS**	5,63
88	80	245	450	6	**SI60C 2RS****	5,63
98	85	315	610	6	**SI70ES**	8,33
98	85	315	610	6	**SI70ES 2RS**	8,33
98	85	315	610	6	**SI70C 2RS****	8,33
110	95	400	750	6	**SI80ES**	13,04
110	95	400	750	6	**SI80ES 2RS**	13,04
110	95	400	750	6	**SI80C 2RS****	13,04

SIL...ES - for left hand thread. Suffix "L" is added to bearings number and thread sign, eg. SIL30ES. Sliding contact surface: steel/steel. Available with increased thread.
*The sizes are not binding.
**Sliding contact surface: steel/PTFE.

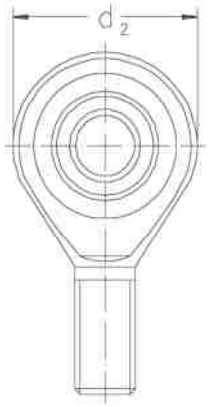
Combination (series e) rod ends

ISO 6126 - 1982



SA...E/ES
SA...ES2RS

Dimensions d	B	C1 max	d1 min	d2 max	d3	h	l1 min	l2 max	Load ratings dyn.	stat.	α*	Designation	Weight
mm						kN	kN					—	kg
5	6	4,5	7	21	M5	36	16	48	3,4	8,1	1	**SA5E**	0,011
6	6	4,5	8	21	M6	36	16	48	3,4	8,1	13	**SA6E**	0,013
	6	4,5	8	21	M6	42	21	48	3,4	8,1	13	**SA6C****	0,013
8	8	6,5	10	24	M8	42	21	55	5,5	12,9	15	**SA8E**	0,026
	8	6,5	10	24	M8	42	21	55	5,5	12,9	15	**SA8C****	0,026
10	9	7,5	13	29	M10	48	26	63	8,1	17,8	12	**SA10E**	0,044
	9	7,5	13	29	M10	48	26	63	8,1	17,6	12	**SA10C****	0,044
12	10	8,5	15	34	M12	54	28	71	10,8	24,5	10	**SA12E**	0,066
	10	8,5	15	34	M12	54	28	71	10,8	24,5	10	**SA12C****	0,066
15	12	10,5	18	40	M14	63	34	83	17	36	8	**SA15ES**	0,121
	12	10,5	18	40	M14	63	34	83	17	36	8	**SA15ES 2RS**	0,121
	12	10,5	18	40	M14	63	34	83	17	36	8	**SA15C****	0,121
17	14	11,5	20	46	M16	69	36	92	21	45	10	**SA17ES**	0,172
	14	11,5	20	46	M16	69	36	92	21	45	10	**SA17ES 2RS**	0,172
	14	11,5	20	46	M16	69	36	92	21	45	10	**SA17C****	0,172
20	16	13,5	24	53	M20x1,5	78	43	105	30	60	9	**SA20ES**	0,283
	16	13,5	24	53	M20x1,5	78	43	105	30	60	9	**SA20ES 2RS**	0,283
	16	13,5	24	53	M20x1,5	78	43	105	30	60	9	**SA20C****	0,283
25	20	18	29	64	M24x2	94	53	126	48	83	7	**SA25ES**	0,504
	20	18	29	64	M24x2	94	53	126	48	83	7	**SA25ES 2RS**	0,504
	20	18	29	64	M24x2	94	53	126	48	83	7	**SA25C****	0,504
30	22	20	34	73	M30x2	110	65	147	62	110	6	**SA30ES**	0,835
	22	20	34	73	M30x2	110	65	147	62	110	6	**SA30ES 2RS**	0,835
	22	20	34	73	M30x2	110	65	147	62	110	6	**SA30C****	0,835
35	25	22	39	82	M36x3	140	82	182	80	148	6	**SA35ES**	1,41
	25	22	39	82	M36x3	140	82	182	80	148	6	**SA35ES 2RS**	1,41
	25	22	39	82	M36x3	140	82	182	80	146	6	**SA35C 2RS****	1,41
40	28	24	45	92	M39x3	150	86	198	100	180	7	**SA40ES**	1,86
	28	24	45	92	M39x3	150	86	198	100	180	7	**SA40ES 2RS**	1,86
	28	24	45	92	M39x3	150	86	198	100	180	7	**SA40C 2RS****	1,86
45	32	28	50	102	M42x3	163	92	217	127	240	7	**SA45ES**	2,57
	32	28	50	102	M42x3	163	92	217	127	240	7	**SA45ES 2RS**	2,57



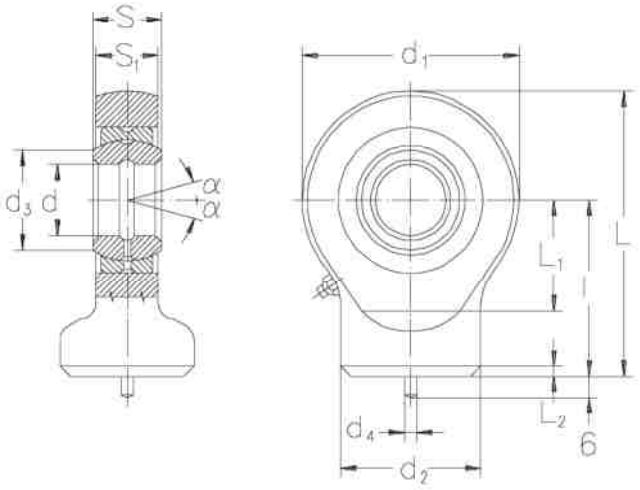
Dimensions									Load ratings		α*	Designation	Weight
d	B	C_1 max	d_1 min	d_2 max	d_3	h	l_1 min	l_2 max	dyn.	stat.			
mm						kN	kN					—	kg
45	32	28	50	102	M42x3	163	92	217	127	240	7	**SA45C 2RS****	2,57
50	35	31	55	112	M45x3	185	104	246	156	290	6	**SA50ES**	3,58
	35	31	55	112	M45x3	185	104	246	156	290	6	**SA50ES 2RS**	3,58
	35	31	55	112	M45x3	185	104	246	156	290	6	**SA50C 2RS****	3,58
60	44	39	66	135	M52x3	210	115	282	245	450	6	**SA60ES**	5,73
	44	39	66	135	M52x3	210	115	282	245	450	6	**SA60ES 2RS**	5,73
	44	39	66	135	M52x3	210	115	282	245	450	6	**SA60C 2RS****	5,73
70	49	43	77	160	M56x4	235	125	318	315	610	6	**SA70ES**	7,94
	49	43	77	160	M56x4	235	125	318	315	610	6	**SA70ES 2RS**	7,94
	49	43	77	160	M56x4	235	125	318	315	610	6	**SA70C 2RS****	7,94
80	55	48	88	180	M64x4	270	140	365	400	750	6	**SA80ES**	12,06
	55	48	88	180	M64x4	270	140	365	400	750	6	**SA80ES 2RS**	12,06
	55	48	88	180	M64x4	270	140	365	400	750	6	**SA80C 2RS****	12,06

For left hand thread, suffix "L" is added to bearings number and thread sign, eg. SAL30ES. Sliding contact surface: steel/steel. Available with increased thread.

*The sizes are not binding.

** Sliding contact surface: steel/PTFE.

Rod ends for hydraulic components

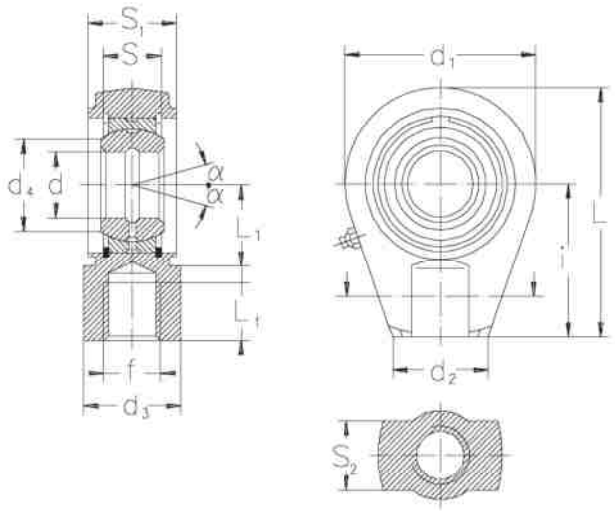


TAC....

Dimensions d	S	d_1	l	d_2	d_3	d_4	S_1	L	L_1	L_2	Designation
mm											—
10	9	29	24	15	13	3	7	38,5	14	2	**TAC 210**
12	10	34	27	17,5	15	3	8	44	16	2	**TAC 212**
15	12	40	31	21	18	4	10	51	18	2,5	**TAC 215**
17	14	46	35	24	20,5	4	11	58	20	3	**TAC 217**
20	16	53	38	27,5	24	4	13	65,4	23	3	**TAC 220**
25	20	64	45	33,5	29	4	17	77	27	4	**TAC 225**
30	22	73	51	40	34	4	19	87,5	30	4	**TAC 230**
35	25	82	61	47	39,5	4	21	102	37	4	**TAC 235**
40	28	92	69	52	45	4	23	115	44	5	**TAC 240**
45	32	102	77	58	50,5	6	27	128	48	5	**TAC 245**
50	35	112	88	62	56	6	30	144	58	6	**TAC 250**
60	44	135	100	70	66,5	6	38	167,5	68	8	**TAC 260**
70	49	160	115	80	77,5	6	42	195	78	10	**TAC 270**
80	55	180	141	95	89	6	47	231	91	10	**TAC 280**

Contact surface: steel / steel
The sizes are not binding.

Rod ends for hydraulic components

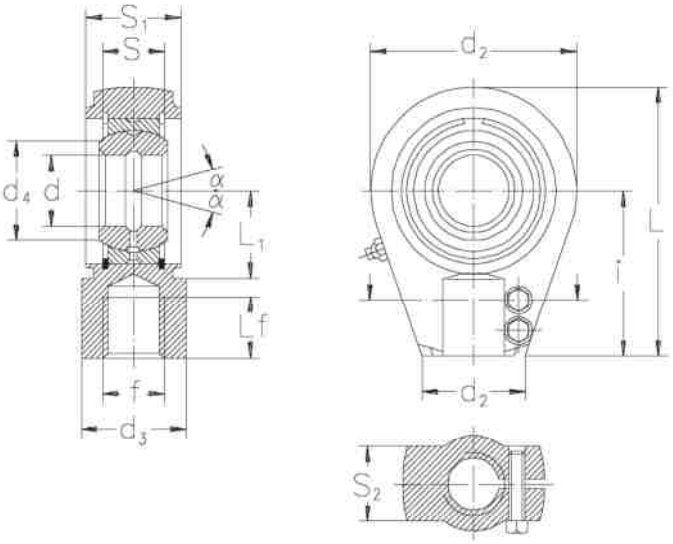


TAPR...N

Dimensions d	S	d_1	l	L_f	d_2	d_3	d_4	S_1	S_2	L	L_1	f	Designation
mm													—
20	16	56	50	17	36	25	24	19	17	80	25	M16x1,5	**TAPR 420 N**
25	20	56	50	17	36	25	29	23	21	80	28	M16x1,5	**TAPR 425 N**
30	22	64	60	23	40	32	34	28	26	94	30	M22x1,5	**TAPR 430 N**
35	25	78	70	29	50	40	39,5	30	28	112	38	M28x1,5	**TAPR 435N**
40	28	94	85	36	60	49	45	35	33	135	45	M35x1,5	**TAPR 440 N**
50	35	116	105	46	72	61	56	40	37	168	55	M45x1,5	**TAPR 450 N**
60	44	130	130	59	90	75	66,5	50	46	200	65	M58x1,5	**TAPR 460 N**
70	49	154	150	66	100	86	77,5	55	51	232	75	M65x1,5	**TAPR 470 N**
80	55	176	170	81	125	102	89	60	55	265	80	M80x2	**TAPR 480 N**
90	60	206	210	101	146	124	98	65	60	323	90	M100x2	**TAPR 490 N**
100	70	230	235	111	166	138	109,5	70	65	360	105	M110x2	**TAPR 495 N**
110	70	265	265	125	190	152	121	80	75	407,5	115	M120x3	**TAPR 496 N**
120	85	340	310	135	257	172	135,5	90	85	490	140	M130x5	**TAPR 497 N**

Contact surface: steel / steel.
The sizes are not binding.

Rod ends for hydraulic components

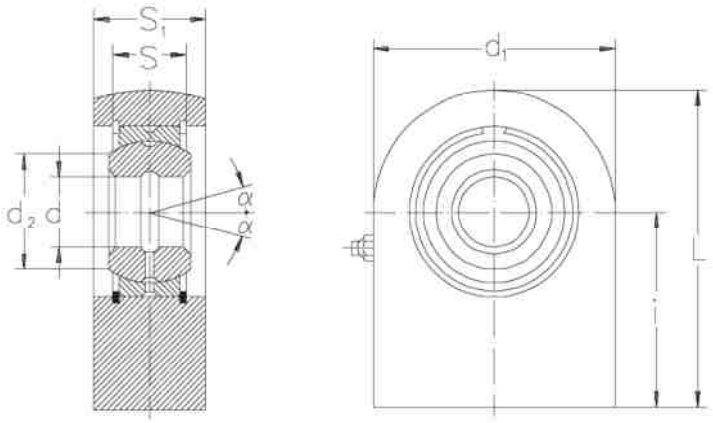


TAPR...U

Dimensions d	S	d_1	l	L_f	d_2	d_3	d_4	S_1	S_2	L	L_1	f	Designation
mm													—
20	16	56	50	17	36	25	24	19	17	80	25	M16x1,5	**TAPR 520 U**
25	20	56	50	17	36	25	29	23	21	80	28	M16x1,5	**TAPR 525 U**
30	22	64	60	23	40	32	34	28	26	94	30	M16x1,5	**TAPR 530 U**
35	25	78	70	29	50	40	39,5	30	28	112	38	M28x1,5	**TAPR 535 U**
40	28	94	85	36	60	49	45	35	33	135	45	M35x1,5	**TAPR 540 U**
50	35	116	105	46	72	61	56	40	37	168	55	M45x1,5	**TAPR 550 U**
60	44	130	130	59	90	75	66,5	50	46	200	65	M58x1,5	**TAPR 560 U**
70	49	154	150	66	100	86	77,5	55	51	232	75	M65x1,5	**TAPR 570 U**
80	55	176	170	81	125	102	89	60	55	265	80	M80x2	**TAPR 580 U**
90	60	206	210	101	146	124	98	65	60	323	90	M100x2	**TAPR 590 U**
100	70	230	235	111	168	138	109,5	70	65	360	105	M110x2	**TAPR 595 U**
110	70	265	265	125	190	152	121	80	75	407,5	115	M120x3	**TAPR 596 U**
120	85	340	310	135	257	172	135	90	85	490	140	M130x5	**TAPR 597 U**

Contact surface: steel / steel.
The sizes are not binding.

Rod ends for hydraulic components



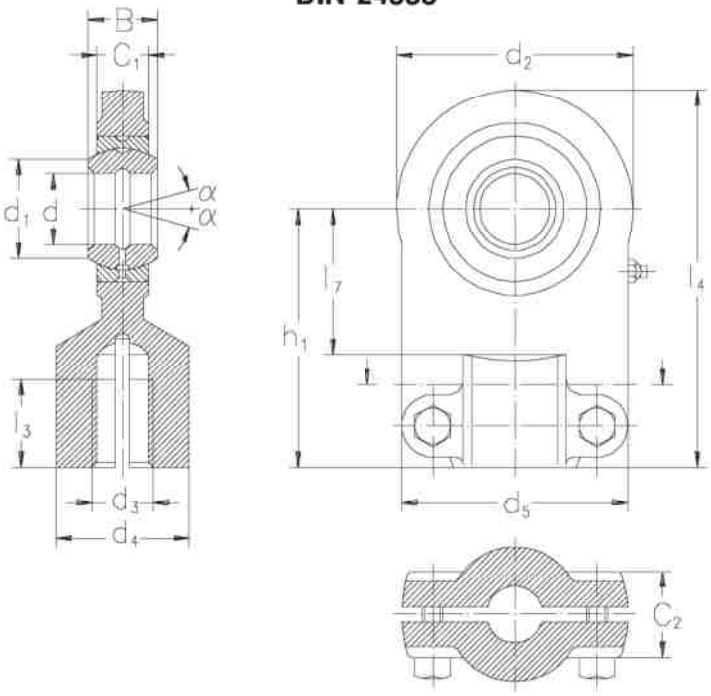
TPN....

Dimensions d	S	d_1	i	d_2	S_1	L	Dessignation
mm							—
20	16	50	38	24	19	63	**TPN 320**
25	20	55	45	29	23	72,5	**TPN 325**
30	22	65	51	34	28	83,5	**TPN 330**
35	25	83	61	39,5	30	102,5	**TPN 335**
40	28	100	69	45	35	119	**TPN 340**
45	32	110	77	50,5	40	132	**TPN 345**
50	35	123	88	56	40	149,5	**TPN 350**
60	44	140	100	66,5	50	170	**TPN 360**
70	49	164	115	77,5	55	197	**TPN 370**
80	55	180	141	89	60	231	**TPN 380**
90	60	226	150	98	65	263	**TPN 390**
100	70	250	170	109,5	70	295	**TPN 395**
110	70	295	185	121	80	332,5	**TPN 396**
120	85	360	210	135,5	90	390	**TPN 397**

Contact surface: steel / steel
The sizes are not binding.

Rod ends for hydraulic components

DIN 24555



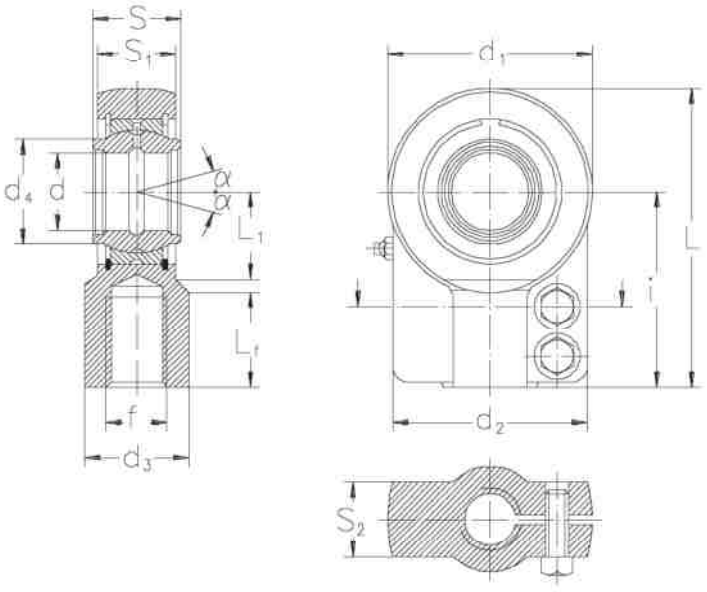
TAPR...DO

Dimensions d	B	d_2	d_1	d_3	d_4	d_5	C_1	C_2	h_1	l_3	l_4	l_7	Designation
mm													—
12	10	32	15	M10x1,25	17	40	8	13	42	15	58	18	**TAPR 701 DO**
16	14	42	20	M12x1,25	21	45	11	13	48	17	69	22	**TAPT 702 DO**
20	16	50	25	M14X1,5	25	55	13	17	58	19	83	28	**TAPR. 703 DO**
25	20	62	29	M16X1,5	30	62	—	68	23	99	34		**TAPR 704 DO**
30	22	76	34	M20X1,5	36	80	19	—	85	29	123	38	**TAPR 705 DO**
40	28	96	45	M27X2	45	90	23	—	105	37	153	48	**TAP 706 DO**
50	35	116	55	M33X2	55	105	30	—	130	46	188	62	**TAPR 707 DO**
60	44	150	66	M42X2	68	134	38	—	150	57	255	74	**TAPR 708 DO**
80	55	195	88	M48X2	78	156	47	—	185	64	282,5	98	**TAPR 709 DO**
100	70	235	109	M64X3	100	190	57	—	240	86	357,5	122	**TAPR 710 DO**

The sizes are not binding.
Contact surface: steel / steel

Rod ends for hydraulic components

DIN 24338

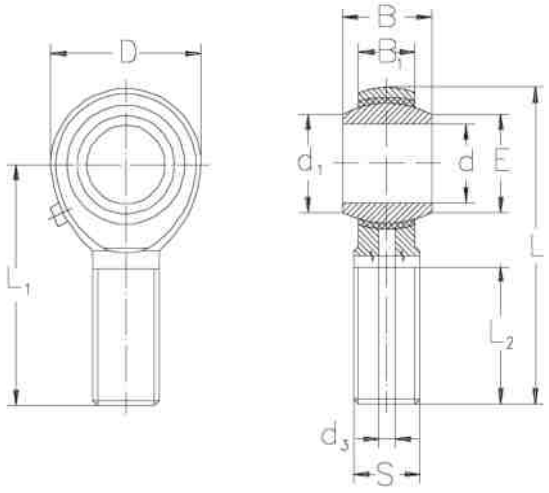


TAPR...CE

Dimensions d	S	d_1	l	L_f	d_2	d_3	d_4	S_1	S_2	L	L_1	f	Designation
mm													—
12	12	32	38	17	32	16	15,5	10,5	12	54	14	M12x1,25	**TAPR 612 CE**
16	16	40	44	19	40	21	20	13	11,5	64	18	M14x1,5	**TAPR 616 CE**
20	20	47	52	23	47	25	25	17	14	77	22	M16x1,5	**TAPR 620 CE**
25	25	58	65	29	54	30	30,5	21	17	96	27	M20x1,5	**TAPR 625 CE**
32	32	70	80	37	66	38	38	27	22	118	32	M27x2	**TAPR 632 CE**
40	40	89	97	46	80	47	46	32	26	145,5	41	M33x2	**TAPR 640 CE**
50	50	108	120	57	96	58	57	40	32	179	50	M24x2	**TAPR 650 CE**
63	63	132	140	64	114	70	71,5	52	38	211	62	M48x2	**TAPR 663 CE**
70	70	155	160	76	135	80	79	57	42	245	70	M56x2	**TAPR 670 CE**
80	80	168	180	86	148	90	91	66	48	270	78	M64x3	**TAPR 680 CE**
90	90	185	195	91	160	100	99	72	52	296	85	M72x3	**TAPR 690 CE**
100	100	210	210	96	178	110	113	84	62	322	98	M80x3	**TAPR 695 CE**
110	110	235	235	101	190	125	124	88	62	364	105	M90x3	**TAPR 696 CE**
125	125	264	260	106	200	135	138	103	72	405	120	M100x3	**TAPR 697 CE**

Contact surface: steel / steel
The sizes are not binding.

Rod ends
ISO 6126 - 1982

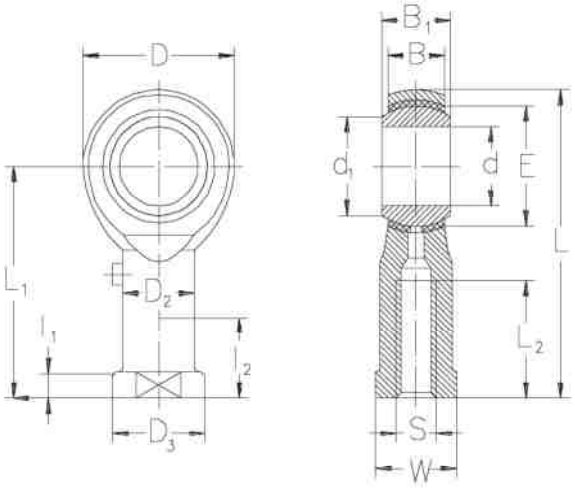


POS
POS...EC

Dimensions									Load ratings		Designation	Weight
d	d_1	B_1	E	B	D	S	L_1	L_2	dyn.	stat.		
mm									kN	kN	—	kg
5	7,7	8	11,11	7	16	M 5x0,8	33	20	3,2	7	**POS 5***	0,014
	7,7	8	11,11	7,5	18	M5	33	20	3,2	7	**POS 5EC****	0,014
6	9	9	12,70	7	18	M6x1	36	22	3,5	8	**POS 6***	0,019
	8,9	9	12,70	7,5	20	M6	36	22	3,5	8	**POS 6 EC****	0,019
8	10,4	12	15,88	9	22	M8x1,25	42	25	5,8	13	**POS 8***	0,036
	10,3	12	15,88	9,5	24	M8	42	25	5,8	13	**POS 8 EC****	0,036
10	12,9	14	19,05	11	26	M10x1,5	48	29	8,6	18	**POS 10***	0,060
	12,9	14	19,05	11,5	30	M10	48	29	8,6	18	**POS 10 EC****	0,070
12	15,4	16	22,23	12	30	M12x1,75	54	33	11,5	24	**POS 12***	0,089
	15,4	16	22,23	12,5	34	M12	54	33	11,5	24	**POS 12 EC****	0,110
14	16,9	19	25,40	14	34	M14x2	60	36	17,5	36	**POS 14***	0,129
	16,8	19	25,40	14,5	38	M14	60	36	17,5	36	**POS 14 EC****	0,130
16	19,4	21	28,58	15	38	M16X2	66	40	20	40	**POS 16***	0,181
	19,3	21	28,58	15,5	42	M16	66	40	20	40	**POS 16 EC****	0,220
17	20,6	22	30,16	16	40	M16x1,5	69	42	22	45	**POS 17***	0,206
18	21,9	23	31,75	17	42	M18x1,5	72	44	27	50	**POS 18***	0,250
	21,8	23	31,75	17,5	46	M18X1,5	72	44	27	50	**POS 18 EC****	0,290
20	24,4	25	34,93	18	46	M20x1,5	78	47	31	60	**POS 20***	0,333
	24,3	25	34,93	18,5	50	M20X1,5	78	47	31	60	**POS 20 EC****	0,360
22	25,9	28	38,10	20	50	M22x1,5	84	51	43	72	**POS 22***	0,430
	25,8	28	38,1	21	56	M22X1,5	84	51	43	72	**POS 22 EC****	0,490
25	29,5	31	42,86	22	56	M24x2	94	57	50	85	**POS 25***	0,575
	29,5	31	42,86	23	60	M24X2	94	57	50	85	**POS 25 EC****	0,65
28	32,3	35	47,59	25	66	M27x2	103	62	60	90	**POS 28***	0,800
	32,2	35	47,59	26	66	M27X2	103	62	60	90	**POS 28 EC****	0,870
30	34,9	37	50,80	26	67	M30x2	110	66	66	110	**POS 30***	0,996
	34,8	37	50,80	27	70	M30X2	110	66	66	110	**POS 30 EC****	1,060

*For left hand thread, suffix "L" is added to bearings number and thread sign, eg. TSML. Sliding contact surface: steel/steel. Available with increased thread. Sliding contact surface: steel/bronze.
**For left hand thread, suffix "L" is added to bearings number and thread sign, eg. TSML...C. Sliding contact surface: steel/steel. Available with increased thread. Sliding contact surface: steel/PTFE. The sizes are not binding.

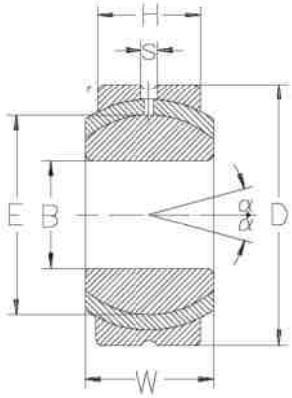
Rod ends
ISO 6126 - 1982



PHS
PHS...EC

Dimensions													Rating load		Design.	Weight
d	d_1	B_1	E	B	D	S	L_1	L_2	D_2	D_3	l_1	W	dyn.	stat.		
mm															—	kg
5	7,7	8	11,11	7	16	M 5x0,8	27	8	9	12	4	9	3,2	7	**PHS 5**	0,018
	7,7	8	11,11	7,5	18	M 5	27	8	9	12	4	10	3,2	7	**PHS 5 EC**	0,018
6	9,0	9	12,71	7	18	M6x1	30	9	10	13	5	11	3,5	8	**PHS 6**	0,026
	8,9	9	12,71	7,5	20	M 6	30	9	10	13	5	10	3,5	8	**PHS 6 EC**	0,026
8	10,4	12	15,88	9	22	M8x1,25	36	12	12,5	16	5	14	5,8	13	**PHS 8**	0,045
	10,3	12	15,88	9,5	24	M 8	36	12	12,5	16	5	13	5,8	13	**PHS 8 EC**	0,045
10	12,9	14	19,05	11	26	M10x1,5	43	15	15	19	6,5	17	8,6	18	**PHS 10**	0,076
	12,9	14	19,05	11	26	M10x1,25	43	15	15	19	6,5	17	8,6	18	**PHS 10,1**	0,076
	12,9	14	19,05	11,5	30	M10	43	15	15	19	6,5	16	8,6	18	**PHS 10 EC**	0,088
	12,9	14	19,05	11,5	30	M10x1,25	43	15	15	19	6,5	16	8,6	18	**PHS 10,1 EC**	0,088
12	15,4	16	22,23	12	30	M12x1,75	50	18	17,5	22	6,5	19	11,5	24	**PHS 12**	0,114
	15,4	16	22,23	12	30	M12x1,25	50	18	17,5	22	6,5	19	11,5	24	**PHS 12,1**	0,114
	15,4	16	22,23	12,5	34	M12	50	18	17,5	22	6,5	18	11,5	24	**PHS 12 EC**	0,120
	15,4	16	22,23	12,5	34	M12x1,25	50	18	17,5	22	6,5	18	11,5	24	**PHS 12,1 EC**	0,120
14	16,9	19	25,40	14	34	M14x2	57	21	20	25	8	22	17,5	36	**PHS 14**	0,158
	16,8	19	25,40	14,5	38	M14	57	21	20	25	8	21	17,5	36	**PHS 14 EC**	0,140
16	19,4	21	28,58	15	38	M16x2	64	24	22	27	8	22	20	40	**PHS 16**	0,200
	19,4	21	28,58	15	38	M16x1,5	64	24	22	27	8	22	20	40	**PHS 16,1**	0,200
	19,3	21	28,58	15,5	42	M16	64	24	22	27	8	24	20	40	**PHS 16 EC**	0,240
	19,3	21	28,58	15,5	42	M16x1,5	64	24	22	27	8	24	20	40	**PHS 16,1 EC**	0,240
17	20,6	22	30,16	16	40	M16x1,5	67	25	24	31	10	27	22	45	**PHS 17**	0,259
18	21,9	23	31,75	17	42	M18x1,5	71	27	25	31	10	27	27	50	**PHS 18**	0,288
	21,8	23	31,75	17,5	46	M18	71	27	25	31	10	27	27	50	**PHS 18 EC**	0,320
20	24,4	25	34,93	18	46	M20x1,5	77	30	27,5	37	10	30	31	60	**PHS 20**	0,372
	24,3	25	34,93	18,5	50	M20	77	30	27,5	37	10	30	31	60	**PHS 20 EC**	0,430
22	25,9	28	38,10	20	50	M22x1,5	84	33	30	37	12	32	43	72	**PHS 22**	0,475
	25,8	28	38,10	21	56	M22	84	33	30	37	12	34	43	72	**PHS 22 EC**	0,610
	29,6	31	42,86	22	56	M24x2	94	36	33,5	42	12	36	50	85	**PHS 25**	0,673
25	29,5	31	42,86	23	60	M24	94	36	33,5	42	12	36	50	85	**PHS 25 EC**	0,810
28	32,3	35	47,59	25	66	M27x2	103	41	37	46	14	41	60	90	**PHS 28**	0,950
	32,2	35	47,59	26	66	M27	103	41	37	46	14	41	60	90	**PHS 28 EC**	1,120
30	34,9	37	50,80	26	67	M30x2	110	45	40	50	15	41	66	110	**PHS 30**	1,050
	34,8	37	50,80	27	70	M30	110	45	40	50	15	46	66	110	**PHS 30 EC**	1,350

Spherical plain bearings



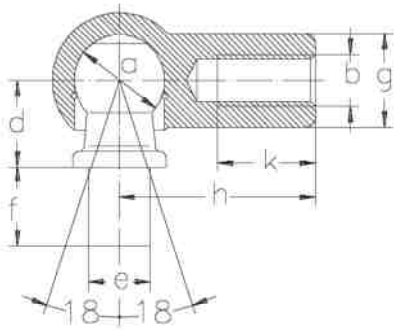
SSR

Dimensions									Max static load ratings		Designation	Weight
B	W	H	O	D	R	S	E	α	radial	axial		
mm									kN	kN	—	kg
5	8	7	7,71	16	0,5	1,5	11,11	24	9,30	2,30	**SSR 5**	0,010
6	9	7	8,96	18	0,5	1,5	12,7	28	10,70	2,70	**SSR 6**	0,012
8	12	9	10,4	22	0,5	1,5	15,88	25	17,20	4,30	**SSR 8**	0,024
10	14	11	12,92	26	0,5	1,5	19,05	23	25,10	6,30	**SSR 10**	0,040
12	16	12	15,43	30	1	2	22,23	24	32,00	8,00	**SSR 12**	0,058
14	19	14	16,86	34	1	2	25,4	23	42,70	10,70	**SSR 14**	0,086
15	20	14	18,2	36	1	2	26,99	24	45,30	11,30	**SSR 15**	0,098
16	21	15	19,39	38	1	2	28,58	24	51,40	12,90	**SSR 16**	0,116
17	22	16	20,63	40	1	2,5	30,16	23	57,90	14,50	**SSR 17**	0,135
18	23	17	21,89	42	1,5	2,5	31,75	23	64,80	162,0	**SSR 18**	0,157
20	25	18	24,38	46	1,5	2,5	34,93	24	75,40	18,90	**SSR 20**	0,200
22	28	20	25,84	50	1,5	2,5	38,1	23	91,40	22,90	**SSR 22**	0,262
25	31	22	29,6	56	1,5	3	42,86	23	113,20	28,30	**SSR 25**	0,362
28	35	25	32,29	62	1,5	3	47,83	22	142,90	35,70	**SSR 28**	0,500
30	37	26	34,81	67	2	3	50,8	23	158,50	39,60	**SSR 30**	0,608

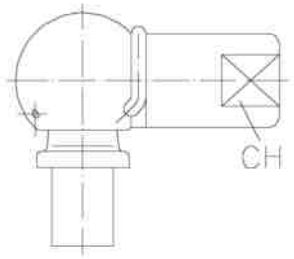
Materials: -housing—steel
-insert—bronze
-ball—chrome steel
The sizes are not binding.

Ball joint rod end with spring clamping

DIN 71802



B



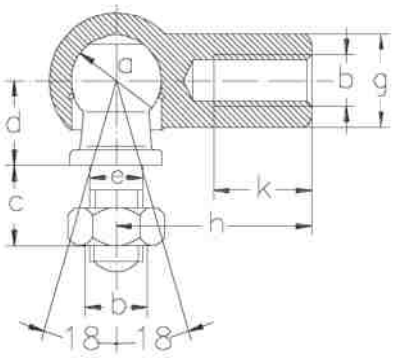
BS

a H9/h8	Dimensions b	d	e h11	f	g	h	k	Weight CH*	B and BS
	mm								g
8	M5	9	5	4	8	22	10,2	7	12,85
8	M5	9	5	7,5	8	22	10,2	7	13,35
10	M6	11	6	4,5	10	25	11,5	8	21,3
10	M6	11	6	8	10	25	11,5	8	22
13	M8	13	8	5	13	30	14	11	43,2
13	M8	13	8	10	13	30	14	11	45
16	M10	16	10	6	16	35	15,5	13	82,3
16	M10	16	10	13	16	35	15,5	13	86,6
19	M14x1,5	20	14	12	22	45	21,5	17	181
19	M14x2	20	14	18	22	45	21,5	17	188,7

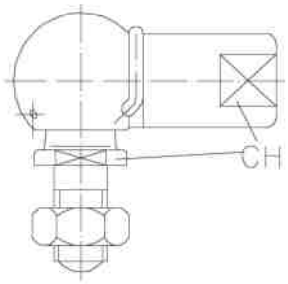
Surface: zinc - plating FeZn7 Uni 4721 - or coarse oiled surface by request.
*Clamping plains.
C45 special.
The sizes are not binding.

Ball joint rod end with spring clamping and safety ring

DIN 71802



A



AS

Dimensions a H9/h8	b	c	d	e h11	g	h	L_1	L_2	k	CH*	Weight A and AS
	mm										g
8	M 5	10	9	5	8	22	25,2	28,5	10,2	7	15,2
10	M 6	12	11	6	10	25	30,2	32,5	11,5	8	25,2
13	M 8	16	13	8	13	30	38,2	39,5	14	11	53,1
16	M10	19	16	10	16	35	47,5	47	15,5	13	102,8
19	M14x1,5	27	20	14	22	45	62,5	60	21,5	17	220,9
19	M14x2	27	20	14	22	45	62,5	60	21,5	17	220,9

Surface: zinc - plating FeZn7 Uni 4721 - or coarse oiled surface by request.
*Clamping plains.
C45 special.
The sizes are not binding.