

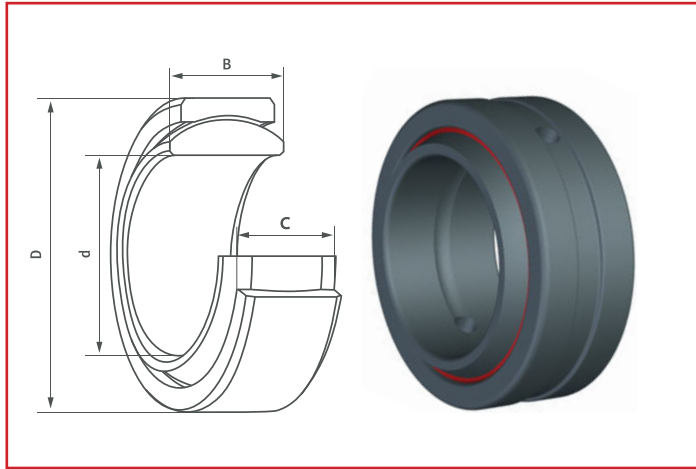
# SPHERICAL PLAIN BEARINGS & ROD ENDS



ball joint ends - spherical plain bearings  
maintenance-free and heavy-maintenance

# Spherical plain bearings

Requiring maintenance



Spherical plain bearings, steel/steel

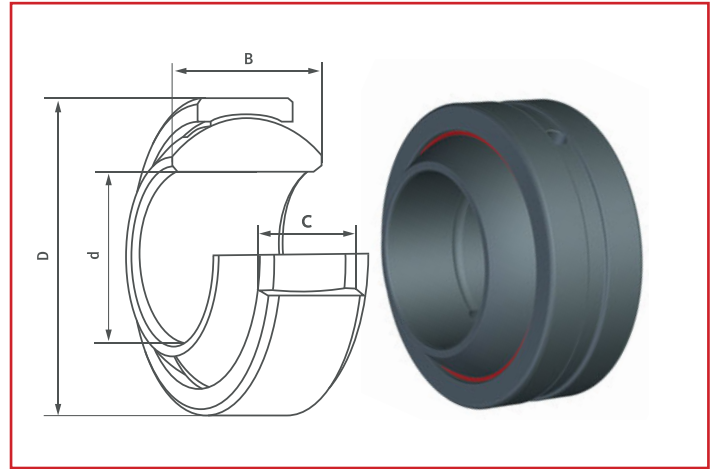
Art. Nr.		d	D	B	C	Load ratings [kN]	
						C	C <sub>0</sub>
GE 6 E	GE 6 DO	6	14	6	4	3.3	16.3
GE 8 E	GE 8 DO	8	16	8	5	5.3	26.4
GE 10 E	GE 10 DO	10	19	9	6	7.8	38.9
GE 12 E	GE 12 DO	12	22	10	7	10.4	52
GE 15 ES	GE 15 DO	15	26	12	9	16.3	82
GE 16 ES	GE 16 DO	16	30	14	10	20.4	102
GE 17 ES	GE 17 DO	17	30	14	10	20.4	102
GE 20 ES	GE 20 DO	20	35	16	12	28.8	140
GE 25 ES	GE 25 DO	25	42	20	16	46	230
GE 30 ES	GE 30 DO	30	47	22	18	60	298
GE 35 ES	GE 35 DO	35	55	25	20	77	384
GE 40 ES	GE 40 DO	40	62	28	22	96	480
GE 45 ES	GE 45 DO	45	68	32	25	122	614
GE 50 ES	GE 50 DO	50	75	35	28	150	749
GE 60 ES	GE 60 DO	60	90	44	36	235	1171
GE 70 ES	GE 70 DO	70	105	49	40	302	1498
GE 80 ES	GE 80 DO	80	120	55	45	384	1920
GE 90 ES	GE 90 DO	90	130	60	50	470	2352
GE 100 ES	GE 100 DO	100	150	70	55	586	2928
GE 110 ES	GE 110 DO	110	160	70	55	629	3120
GE 120 ES	GE 120 DO	120	180	85	70	912	4560
GE 140 ES	GE 140 DO	140	210	90	70	1037	5184
GE 160 ES	GE 160 DO	160	230	105	80	1315	6528
GE 180 ES	GE 180 DO	180	260	105	80	1469	7344
GE 200 ES	GE 200 DO	200	290	130	100	2035	10176
GE 220 ES	GE 220 DO	220	320	135	100	2227	11136
GE 240 ES	GE 240 DO	240	340	140	100	2448	12192
GE 260 ES	GE 260 DO	260	370	150	110	2928	14688
GE 280 ES	GE 280 DO	280	400	155	120	3408	17280
GE 300 ES	GE 300 DO	300	430	165	120	3648	18240

Spherical plain bearings, steel/steel with sealing

Art. Nr.		d	D	B	C	Load ratings [kN]	
						C	C <sub>0</sub>
GE 15 ES 2RS	GE 15 DO 2RS	15	26	12	9	16.3	82
GE 17 ES 2RS	GE 17 DO 2RS	17	30	14	10	20.4	102
GE 20 ES 2RS	GE 20 DO 2RS	20	35	16	12	28.8	140
GE 25 ES 2RS	GE 25 DO 2RS	25	42	20	16	46	230
GE 30 ES 2RS	GE 30 DO 2RS	30	47	22	18	60	298
GE 35 ES 2RS	GE 35 DO 2RS	35	55	25	20	77	384
GE 40 ES 2RS	GE 40 DO 2RS	40	62	28	22	96	480
GE 45 ES 2RS	GE 45 DO 2RS	45	68	32	25	122	614
GE 50 ES 2RS	GE 50 DO 2RS	50	75	35	28	150	749
GE 60 ES 2RS	GE 60 DO 2RS	60	90	44	36	235	1171
GE 70 ES 2RS	GE 70 DO 2RS	70	105	49	40	302	1498
GE 80 ES 2RS	GE 80 DO 2RS	80	120	55	45	384	1920
GE 90 ES 2RS	GE 90 DO 2RS	90	130	60	50	470	2352
GE 100 ES 2RS	GE 100 DO 2RS	100	150	70	55	586	2928
GE 110 ES 2RS	GE 110 DO 2RS	110	160	70	55	629	3120
GE 120 ES 2RS	GE 120 DO 2RS	120	180	85	70	912	4560
GE 140 ES 2RS	GE 140 DO 2RS	140	210	90	70	1037	5184
GE 160 ES 2RS	GE 160 DO 2RS	160	230	105	80	1315	6528
GE 180 ES 2RS	GE 180 DO 2RS	180	260	105	80	1469	7344
GE 200 ES 2RS	GE 200 DO 2RS	200	290	130	100	2035	10176
GE 220 ES 2RS	GE 220 DO 2RS	220	320	135	100	2227	11136
GE 240 ES 2RS	GE 240 DO 2RS	240	340	140	100	2448	12192
GE 260 ES 2RS	GE 260 DO 2RS	260	370	150	110	2928	14688
GE 280 ES 2RS	GE 280 DO 2RS	280	400	155	120	3408	17280
GE 300 ES 2RS	GE 300 DO 2RS	300	430	165	120	3648	18240

# Spherical plain bearings

Requiring maintenance



Spherical plain bearings, steel/steel, with wider inner ring

Art. Nr.		d	D	B	C	Load ratings [kN]	
						C	C <sub>0</sub>
GEH 6 E	GE 6 FO	6	16	9	5	5.3	26.4
GEH 8 E	GE 8 FO	8	19	11	6	7.8	38.9
GEH 10 E	GE 10 FO	10	22	12	7	10.4	52
GEH 12 E	GE 12 FO	12	26	15	9	16.3	82
GEH 15 ES	GE 15 FO	15	30	16	10	20.4	102
GEH 17 ES	GE 17 FO	17	35	20	12	28.8	140
GEH 20 ES	GE 20 FO	20	42	25	16	46	230
GEH 25 ES	GE 25 FO	25	47	28	18	60	298
GEH 30 ES	GE 30 FO	30	55	32	20	77	384
GEH 35 ES	GE 35 FO	35	62	35	22	96	480
GEH 40 ES	GE 40 FO	40	68	40	25	122	614
GEH 45 ES	GE 45 FO	45	75	43	28	150	749
GEH 50 ES	GE 50 FO	50	90	56	36	235	1171
GEH 60 ES	GE 60 FO	60	105	63	40	302	1498
GEH 70 ES	GE 70 FO	70	120	70	45	384	1920
GEH 80 ES	GE 80 FO	80	130	75	50	470	2352
GEH 90 ES	GE 90 FO	90	150	85	55	586	2928
GEH 100 ES	GE 100 FO	100	160	85	55	629	3120
GEH 110 ES	GE 110 FO	110	180	100	70	912	4560
GEH 120 ES	GE 120 FO	120	210	115	70	1037	5184
GEH 140 ES	GE 140 FO	140	230	130	80	1315	6528
GEH 160 ES	GE 160 FO	160	260	135	80	1469	7344
GEH 180 ES	GE 180 FO	180	290	155	100	2035	10176
GEH 200 ES	GE 200 FO	200	320	165	100	2227	11136
GEH 220 ES	GE 220 FO	220	340	175	100	2448	12192
GEH 240 ES	GE 240 FO	240	370	190	110	2928	14688
GEH 260 ES	GE 260 FO	260	400	205	120	3408	17280
GEH 280 ES	GE 280 FO	280	430	210	120	3648	18240

Spherical plain bearings, steel/steel, with wider inner ring and sealing

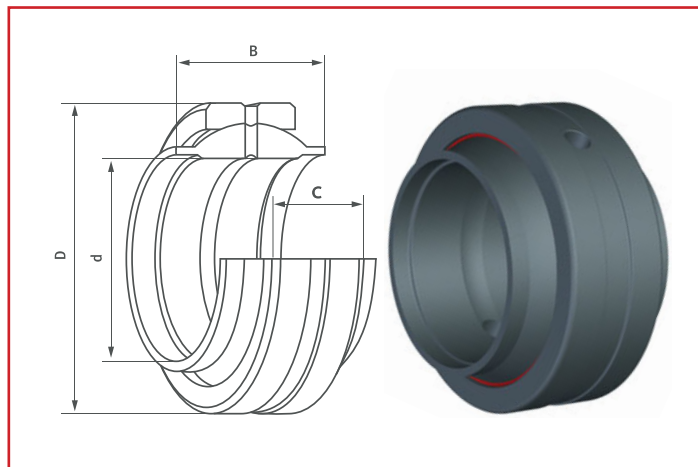
Art. Nr.		d	D	B	C	Load ratings [kN]	
						C	C <sub>0</sub>
GEH 15 ES 2RS	GE 15 FO 2RS	15	30	16	10	20.4	102
GEH 17 ES 2RS	GE 17 FO 2RS	17	35	20	12	28.8	140
GEH 20 ES 2RS	GE 20 FO 2RS	20	42	25	16	46	230
GEH 25 ES 2RS	GE 25 FO 2RS	25	47	28	18	60	298
GEH 30 ES 2RS	GE 30 FO 2RS	30	55	32	20	77	384
GEH 35 ES 2RS	GE 35 FO 2RS	35	62	35	22	96	480
GEH 40 ES 2RS	GE 40 FO 2RS	40	68	40	25	122	614
GEH 45 ES 2RS	GE 45 FO 2RS	45	75	43	28	150	749
GEH 50 ES 2RS	GE 50 FO 2RS	50	90	56	36	235	1171
GEH 60 ES 2RS	GE 60 FO 2RS	60	105	63	40	302	1498
GEH 70 ES 2RS	GE 70 FO 2RS	70	120	70	45	384	1920
GEH 80 ES 2RS	GE 80 FO 2RS	80	130	75	50	470	2352
GEH 90 ES 2RS	GE 90 FO 2RS	90	150	85	55	586	2928
GEH 100 ES 2RS	GE 100 FO 2RS	100	160	85	55	629	3120
GEH 110 ES 2RS	GE 110 FO 2RS	110	180	100	70	912	4560
GEH 120 ES 2RS	GE 120 FO 2RS	120	210	115	70	1037	5184
GEH 140 ES 2RS	GE 140 FO 2RS	140	230	130	80	1315	6528
GEH 160 ES 2RS	GE 160 FO 2RS	160	260	135	80	1469	7344
GEH 180 ES 2RS	GE 180 FO 2RS	180	290	155	100	2035	10176
GEH 200 ES 2RS	GE 200 FO 2RS	200	320	165	100	2227	11136
GEH 220 ES 2RS	GE 220 FO 2RS	220	340	175	100	2448	12192
GEH 240 ES 2RS	GE 240 FO 2RS	240	370	190	110	2928	14688
GEH 260 ES 2RS	GE 260 FO 2RS	260	400	205	120	3408	17280
GEH 280 ES 2RS	GE 280 FO 2RS	280	430	210	120	3648	18240

Permissible working temperature: -60°C - +130°C (Applications up to +200°C without sealings and from 150°C with possible losses of length of life). Further restrictions through lubricant should be kept in mind.

Permissible working temperature: -60°C - +130°C (Applications up to +200°C without sealings and from 150°C with possible losses of length of life). Further restrictions through lubricant should be kept in mind.

## Spherical plain bearings

Requiring maintenance



Spherical plain bearings, steel/steel,  
with wider inner ring

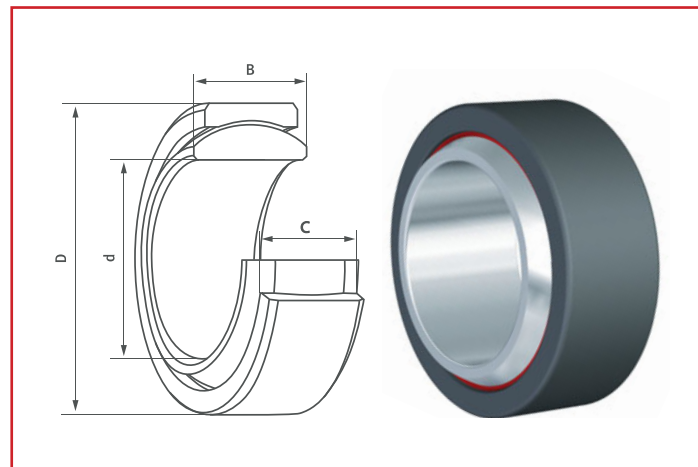
						Load ratings [kN]	
Art. Nr.		d	D	B	C	C	C <sub>0</sub>
GEG 12 ES	GE 12 LO	12	22	12	7	10.368	51.84
GEG 16 ES	GE 16 LO	16	28	16	9	16.896	84.48
GEG 20 ES	GE 20 LO	20	35	20	12	29	140
GEG 25 ES	GE 25 LO	25	42	25	16	46	230
GEG 30 ES	GE 30 LO	30	47	30	18	60	298
GEG 32 ES	GE 32 LO	32	52	32	18	65.5	312
GEG 35 ES	GE 35 LO	35	55	35	20	77	384
GEG 40 ES	GE 40 LO	40	62	40	22	96	480
GEG 45 ES	GE 45 LO	45	68	40	25	122	614
GEG 50 ES	GE 50 LO	50	75	50	28	150	749
GEG 60 ES	GE 60 LO	60	90	54	36	235	1171
GEG 63 ES	GE 63 LO	63	95	63	36	244.8	1219.2
GEG 70 ES	GE 70 LO	70	105	65	40	302	1498
GEG 80 ES	GE 80 LO	80	120	80	45	384	1920
GEG 90 ES	GE 90 LO	90	130	90	50	470.4	2352
GEG 100 ES	GE 100 LO	100	150	100	55	585.6	2928
GEG 110 ES	GE 110 LO	110	160	110	55	628.8	3120
GEG 125 ES	GE 125 LO	125	180	125	70	912	4560
GEG 160 ES	GE 160 LO	160	230	160	80	1315.2	6528
GEG 200 ES	GE 200 LO	200	290	200	100	2035.2	10176
GEG 250 ES	GE 250 LO	250	400	250	120	3408	17280
GEG 320 ES	GE 320 LO	320	520	320	160	5856	29280

Spherical plain bearings, steel/steel,  
with wider inner ring and sealing

						Load ratings [kN]	
Art. Nr.		d	D	B	C	C	C <sub>0</sub>
GEM 20 ES 2RS	GE 20 HO 2RS	20	35	24	12	29	140
GEM 25 ES 2RS	GE 25 HO 2RS	25	42	29	16	46	230
GEM 30 ES 2RS	GE 30 HO 2RS	30	47	30	18	60	298
GEM 35 ES 2RS	GE 35 HO 2RS	35	55	35	20	77	384
GEM 40 ES 2RS	GE 40 HO 2RS	40	62	38	22	96	480
GEM 45 ES 2RS	GE 45 HO 2RS	45	68	40	25	122	614
GEM 50 ES 2RS	GE 50 HO 2RS	50	75	43	28	150	749
GEM 60 ES 2RS	GE 60 HO 2RS	60	90	54	36	235	1171
GEM 70 ES 2RS	GE 70 HO 2RS	70	105	65	40	302	1498
GEM 80 ES 2RS	GE 80 HO 2RS	80	120	74	45	384	1920

## Spherical plain bearings

Requiring maintenance



Spherical plain bearings,  
hard chrome plated/PTFE

						Load ratings [kN]	
Art. Nr.		d	D	B	C	C	C <sub>0</sub>
GE 6 UK	GE 6 C	6	14	6	4	3.5	8.6
GE 8 UK	GE 8 C	8	16	8	5	5.6	14
GE 10 UK	GE 10 C	10	19	9	6	8.3	21
GE 12 UK	GE 12 C	12	22	10	7	10.9	27
GE 15 UK	GE 15 C	15	26	12	9	17.3	43
GE 17 UK	GE 17 C	17	30	14	10	21.5	54
GE 20 UK	GE 20 C	20	35	16	12	30	75
GE 25 UK	GE 25 C	25	42	20	16	49	122
GE 30 UK	GE 30 C	30	47	22	18	63	159

Spherical plain bearings,  
hard chrome plated/PTFE with sealing

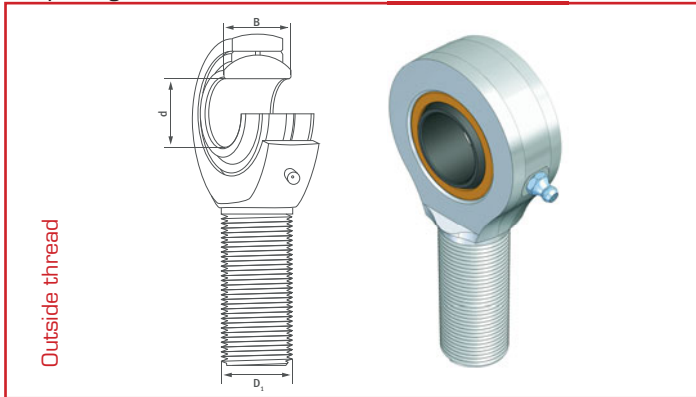
						Load ratings [kN]	
Art. Nr.		d	D	B	C	C	C <sub>0</sub>
GE 20 UK 2RS	GE 20 TE 2RS	20	35	16	12	67.5	112
GE 25 UK 2RS	GE 25 TE 2RS	25	42	20	16	127	212
GE 30 UK 2RS	GE 30 TE 2RS	30	47	22	18	165	275
GE 35 UK 2RS	GE 35 TE 2RS	35	55	25	20	210	350
GE 40 UK 2RS	GE 40 TE 2RS	40	62	28	22	277	462
GE 45 UK 2RS	GE 45 TE 2RS	45	68	32	25	360	600
GE 50 UK 2RS	GE 50 TE 2RS	50	75	35	28	442	737
GE 60 UK 2RS	GE 60 TE 2RS	60	90	44	36	690	1150
GE 70 UK 2RS	GE 70 TE 2RS	70	105	49	40	885	1475
GE 80 UK 2RS	GE 80 TE 2RS	80	120	55	45	1125	1875
GE 90 UK 2RS	GE 90 TE 2RS	90	130	60	50	1380	2300
GE 100 UK 2RS	GE 100 TE 2RS	100	150	70	55	1717	2862
GE 110 UK 2RS	GE 110 TE 2RS	110	160	70	55	1845	3075
GE 120 UK 2RS	GE 120 TE 2RS	120	180	85	70	2685	4475
GE 140 UK 2RS	GE 140 TA 2RS	140	210	90	70	3015	5025
GE 160 UK 2RS	GE 160 TA 2RS	160	230	105	80	3840	6400
GE 180 UK 2RS	GE 180 TA 2RS	180	260	105	80	4320	7200
GE 200 UK 2RS	GE 200 TA 2RS	200	290	130	100	6000	10000
GE 220 UK 2RS	GE 220 TA 2RS	220	320	135	100	6600	11000
GE 240 UK 2RS	GE 240 TA 2RS	240	340	140	100	7200	12000
GE 260 UK 2RS	GE 260 TA 2RS	260	370	150	110	8550	14250
GE 280 UK 2RS	GE 280 TA 2RS	280	400	155	120	10050	16750
GE 300 UK 2RS	GE 300 TA 2RS	300	430	165	120	10080	18000

Permissible working temperature: -60°C - +130°C (Applications up to +200°C without sealings and from 150°C with possible losses of length of life). Further restrictions through lubricant should be kept in mind.

Permissible working temperature: -50°C - +95°C (Applications up to +200°C with possible losses of length of life).

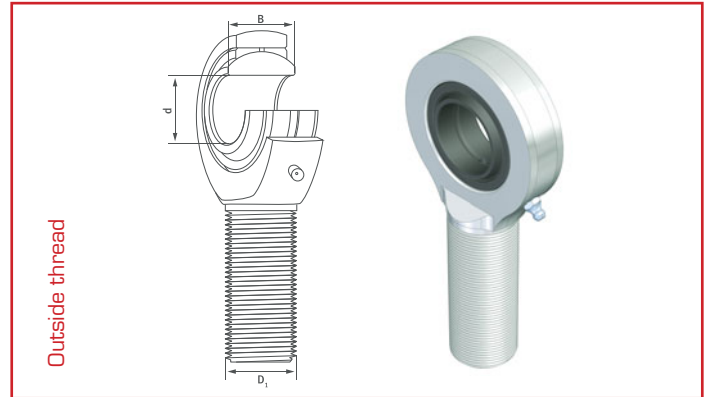
## Rod ends

Requiring maintenance



## Rod ends

Maintenance-bound

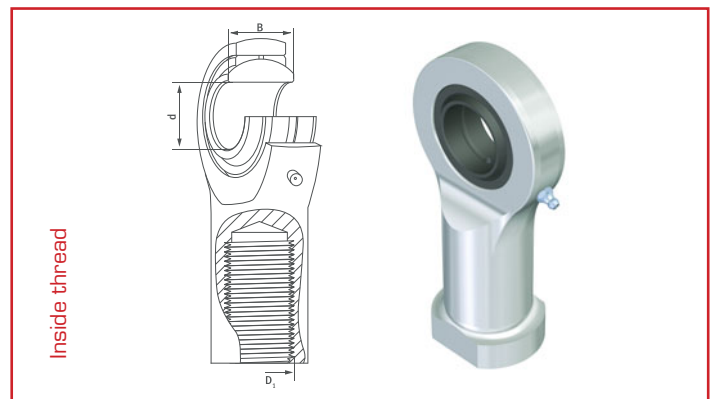
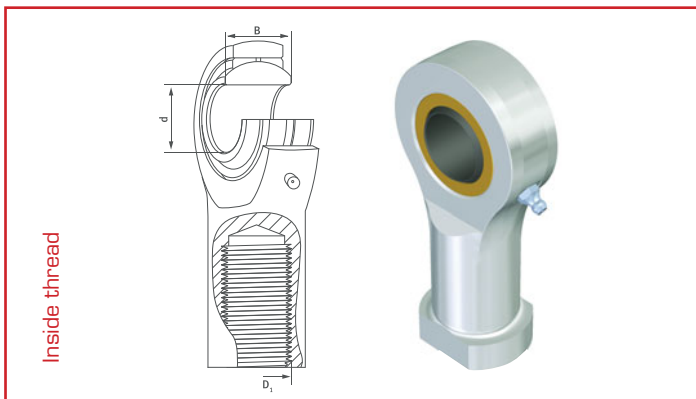


Rod end, steel / bronze with outside thread

Art. Nr.		d	B	D <sub>1</sub>
GAKFR 5 PB	(SAKAC 5 M)	5	8	M5
GAKFR 6 PB	(SAKAC 6 M)	6	9	M6
GAKFR 8 PB	(SAKAC 8 M)	8	12	M8
GAKFR 10 PB	(SAKAC 10 M)	10	14	M10
GAKFR 12 PB	(SAKAC 12 M)	12	16	M12
GAKFR 14 PB	(SAKAC 14 M)	14	19	M14
GAKFR 16 PB	(SAKAC 16 M)	16	21	M16
GAKFR 17 PB	(SAKAC 17 M)	17	22	M17
GAKFR 18 PB	(SAKAC 18 M)	18	23	M18 x 1,5
GAKFR 20 PB	(SAKAC 20 M)	20	25	M20 x 1,5
GAKFR 22 PB	(SAKAC 22 M)	22	28	M22 x 1,5
GAKFR 25 PB	(SAKAC 25 M)	25	31	M24 x 2
GAKFR 28 PB	(SAKAC 28 M)	28	35	M27 x 2
GAKFR 30 PB	(SAKAC 30 M)	30	37	M30 x 2

Rod end, steel / steel with outside thread

Art. Nr.		d	B	D <sub>1</sub>
GAR 6 DO	(SA 6 ES)	6	6	M6
GAR 8 DO	(SA 8 ES)	8	8	M8
GAR 10 DO	(SA 10 ES)	10	9	M10
GAR 12 DO	(SA 12 ES)	12	10	M12
GAR 15 DO	(SA 15 ES)	15	12	M14
GAR 17 DO	(SA 17 ES)	17	14	M16
GAR 20 DO	(SA 20 ES)	20	16	M20 x 1,5
GAR 25 DO	(SA 25 ES)	25	20	M24 x 2
GAR 30 DO	(SA 30 ES)	30	22	M30 x 2
GAR 35 DO	(SAA 35 ES)	35	25	M36 x 3
GAR 40 DO	(SAA 40 ES)	40	28	M39 x 3
GAR 45 DO	(SAA 45 ES)	45	32	M42 x 3
GAR 50 DO	(SAA 50 ES)	50	35	M45 x 3
GAR 60 DO	(SAA 60 ES)	60	44	M52 x 3
GAR 70 DO	(SAA 70 ES)	70	49	M56 x 4
GAR 80 DO	(SAA 80 ES)	80	55	M64 x 4



Rod end, steel / bronze with inside thread

Art. Nr.		d	B	D <sub>1</sub>
GIKFR 5 PB	(SIKAC 5 M)	5	8	M5
GIKFR 6 PB	(SIKAC 6 M)	6	9	M6
GIKFR 8 PB	(SIKAC 8 M)	8	12	M8
GIKFR 10 PB	(SIKAC 10 M)	10	14	M10
GIKFR 12 PB	(SIKAC 12 M)	12	16	M12
GIKFR 14 PB	(SIKAC 14 M)	14	19	M14
GIKFR 16 PB	(SIKAC 16 M)	16	21	M16
GIKFR 17 PB	(SIKAC 17 M)	17	22	M17
GIKFR 18 PB	(SIKAC 18 M)	18	23	M18 x 1,5
GIKFR 20 PB	(SIKAC 20 M)	20	25	M20 x 1,5
GIKFR 22 PB	(SIKAC 22 M)	22	28	M22 x 1,5
GIKFR 25 PB	(SIKAC 25 M)	25	31	M24 x 2
GIKFR 28 PB	(SIKAC 28 M)	28	35	M27 x 2
GIKFR 30 PB	(SIKAC 30 M)	30	37	M30 x 2

Rod end, steel / steel with inside thread

Art. Nr.		d	B	D <sub>1</sub>
GIR 6 DO	(SI 6 ES)	6	6	M6
GIR 8 DO	(SI 8 ES)	8	8	M8
GIR 10 DO	(SI 10 ES)	10	9	M10
GIR 12 DO	(SI 12 ES)	12	10	M12
GIR 15 DO	(SI 15 ES)	15	12	M14
GIR 17 DO	(SI 17 ES)	17	14	M16
GIR 20 DO	(SI 20 ES)	20	16	M20 x 1,5
GIR 25 DO	(SI 25 ES)	25	20	M24 x 2
GIR 30 DO	(SI 30 ES)	30	22	M30 x 2
GIR 35 DO	(SIA 35 ES)	35	25	M36 x 3
GIR 40 DO	(SIA 40 ES)	40	28	M39 x 3
GIR 45 DO	(SIA 45 ES)	45	32	M42 x 3
GIR 50 DO	(SIA 50 ES)	50	35	M45 x 3
GIR 60 DO	(SIA 60 ES)	60	44	M52 x 3
GIR 70 DO	(SIA 70 ES)	70	49	M56 x 4
GIR 80 DO	(SIA 80 ES)	80	55	M64 x 4

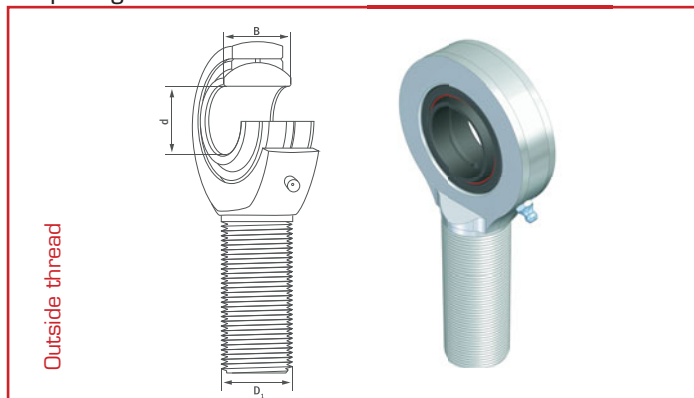
Permissible working temperature: -60°C - +150°C  
 (Applications up to +250°C with possible losses of length of life).  
 Further restrictions through lubricant should be kept in mind.

Permissible working temperature: -60°C - +150°C  
 (Applications up to +250°C with possible losses of length of life).  
 Further restrictions through lubricant should be kept in mind.



## Rod ends

Requiring maintenance

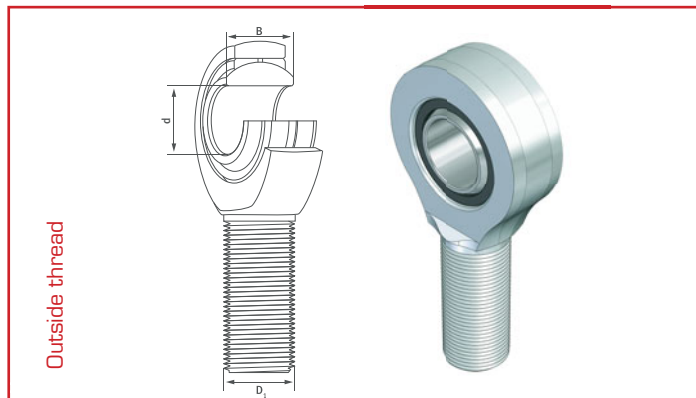


Rod end, steel / steel with outside thread and sealing

Art. Nr.		d	B	D <sub>1</sub>
GAR 15 DO 2RS	(SA 15 ES 2RS)	15	12	M14
GAR 17 DO 2RS	(SA 17 ES 2RS)	17	14	M16
GAR 20 DO 2RS	(SA 20 ES 2RS)	20	16	M20 x 1,5
GAR 25 DO 2RS	(SA 25 ES 2RS)	25	20	M24 x 2
GAR 30 DO 2RS	(SA 30 ES 2RS)	30	22	M30 x 2
GAR 35 DO 2RS	(SAA 35 ES 2RS)	35	25	M36 x 3
GAR 40 DO 2RS	(SAA 40 ES 2RS)	40	28	M39 x 3
GAR 45 DO 2RS	(SAA 45 ES 2RS)	45	32	M42 x 3
GAR 50 DO 2RS	(SAA 50 ES 2RS)	50	35	M45 x 3
GAR 60 DO 2RS	(SAA 60 ES 2RS)	60	44	M52 x 3
GAR 70 DO 2RS	(SAA 70 ES 2RS)	70	49	M56 x 4
GAR 80 DO 2RS	(SAA 80 ES 2RS)	80	55	M64 x 4

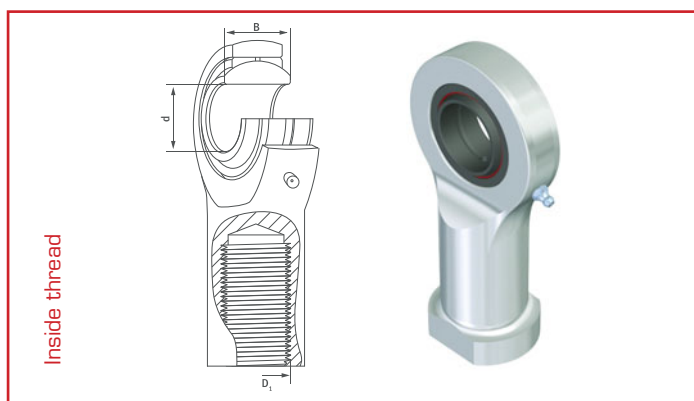
## Rod ends

Maintenance-free



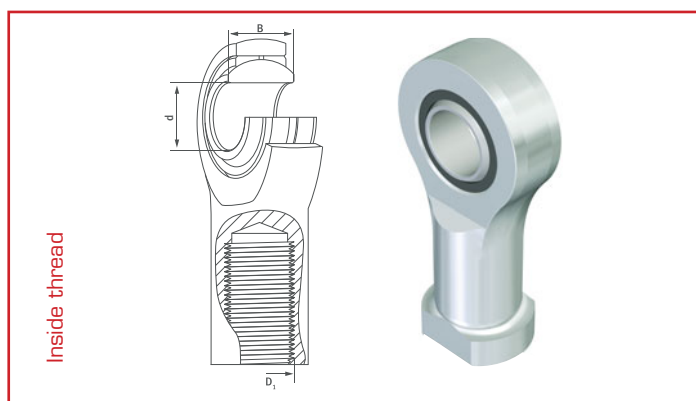
Rod end, steel / PTFE with outside thread

Art. Nr.		d	B	D <sub>1</sub>
GAKFR 5 PW	(SAKAC 5 F)	5	8	M5
GAKFR 6 PW	(SAKAC 6 F)	6	9	M6
GAKFR 8 PW	(SAKAC 8 F)	8	12	M8
GAKFR 10 PW	(SAKAC 10 F)	10	14	M10
GAKFR 12 PW	(SAKAC 12 F)	12	16	M12
GAKFR 14 PW	(SAKAC 14 F)	14	19	M14
GAKFR 16 PW	(SAKAC 16 F)	16	21	M16
GAKFR 17 PW	(SAKAC 17 F)	17	22	M17
GAKFR 18 PW	(SAKAC 18 F)	18	23	M18 x 1,5
GAKFR 20 PW	(SAKAC 20 F)	20	25	M20 x 1,5
GAKFR 22 PW	(SAKAC 22 F)	22	28	M22 x 1,5
GAKFR 25 PW	(SAKAC 25 F)	25	31	M24 x 2
GAKFR 28 PW	(SAKAC 28 F)	28	35	M27 x 2
GAKFR 30 PW	(SAKAC 30 F)	30	37	M30 x 2



Rod end, steel / steel with inside thread and sealing

Art. Nr.		d	B	D <sub>1</sub>
GIR 15 DO 2RS	(SI 15 ES 2RS)	15	12	M14
GIR 17 DO 2RS	(SI 17 ES 2RS)	17	14	M16
GIR 20 DO 2RS	(SI 20 ES 2RS)	20	16	M20 x 1,5
GIR 25 DO 2RS	(SI 25 ES 2RS)	25	20	M24 x 2
GIR 30 DO 2RS	(SI 30 ES 2RS)	30	22	M30 x 2
GIR 35 DO 2RS	(SIA 35 ES 2RS)	35	25	M36 x 3
GIR 40 DO 2RS	(SIA 40 ES 2RS)	40	28	M39 x 3
GIR 45 DO 2RS	(SIA 45 ES 2RS)	45	32	M42 x 3
GIR 50 DO 2RS	(SIA 50 ES 2RS)	50	35	M45 x 3
GIR 60 DO 2RS	(SIA 60 ES 2RS)	60	44	M52 x 3
GIR 70 DO 2RS	(SIA 70 ES 2RS)	70	49	M56 x 4
GIR 80 DO 2RS	(SIA 80 ES 2RS)	80	55	M64 x 4



Rod end, steel / PTFE with inside thread

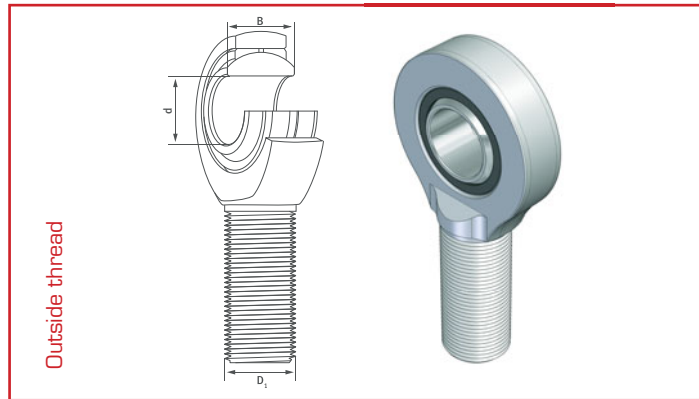
Art. Nr.		d	B	D <sub>1</sub>
GIKFR 5 PW	(SIKAC 5 F)	5	8	M5
GIKFR 6 PW	(SIKAC 6 F)	6	9	M6
GIKFR 8 PW	(SIKAC 8 F)	8	12	M8
GIKFR 10 PW	(SIKAC 10 F)	10	14	M10
GIKFR 12 PW	(SIKAC 12 F)	12	16	M12
GIKFR 14 PW	(SIKAC 14 F)	14	19	M14
GIKFR 16 PW	(SIKAC 16 F)	16	21	M16
GIKFR 17 PW	(SIKAC 17 F)	17	22	M17
GIKFR 18 PW	(SIKAC 18 F)	18	23	M18 x 1,5
GIKFR 20 PW	(SIKAC 20 F)	20	25	M20 x 1,5
GIKFR 22 PW	(SIKAC 22 F)	22	28	M22 x 1,5
GIKFR 25 PW	(SIKAC 25 F)	25	31	M24 x 2
GIKFR 28 PW	(SIKAC 28 F)	28	35	M27 x 2
GIKFR 30 PW	(SIKAC 30 F)	30	37	M30 x 2

Permissible working temperature: -60°C - +130°C [Applications up to +200°C without sealings and from 150°C with possible losses of length of life]. Further restrictions through lubricant should be kept in mind.

Permissible working temperature: -60°C - +100°C [Applications up to +200°C with possible losses of length of life].

## Rod ends

Maintenance-free

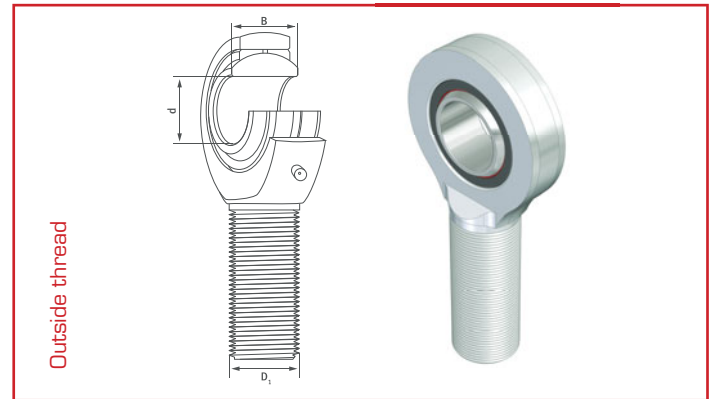


Rod end, hard chrome plated / PTFE with outside thread

Art. Nr.		d	B	D <sub>1</sub>
GAR 6 UK	(SA 6 C)	6	6	M6
GAR 8 UK	(SA 8 C)	8	8	M8
GAR 10 UK	(SA 10 C)	10	9	M10
GAR 12 UK	(SA 12 C)	12	10	M12
GAR 15 UK	(SA 15 C)	15	12	M14
GAR 17 UK	(SA 17 C)	17	14	M16
GAR 20 UK	(SA 20 C)	20	16	M20 x 1,5
GAR 25 UK	(SA 25 C)	25	20	M24 x 2
GAR 30 UK	(SA 30 C)	30	22	M30 x 2

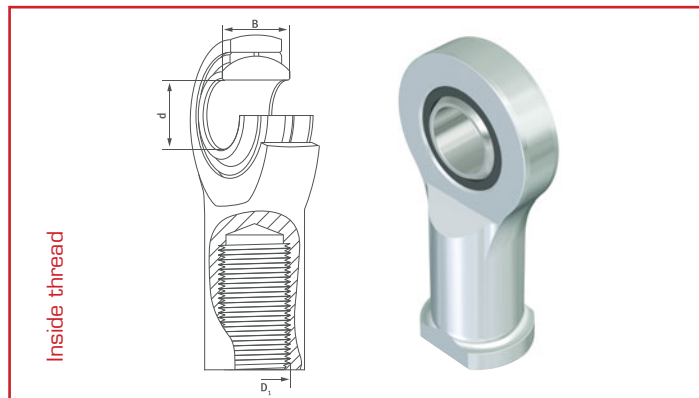
## Rod ends

Maintenance-free



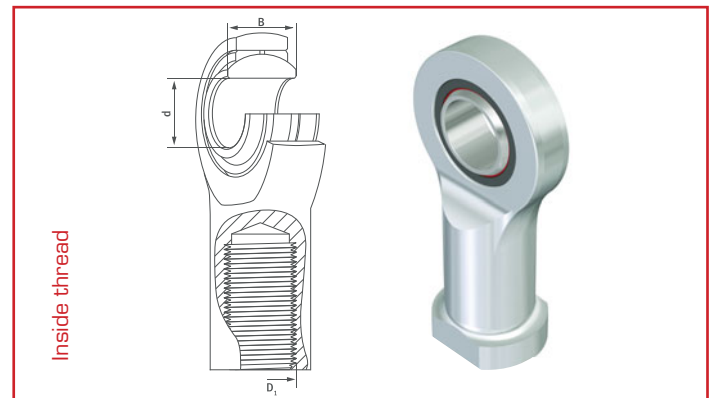
Rod end, hard chrome plated / PTFE with outside thread and sealing

Art. Nr.		d	B	D <sub>1</sub>
GAR 20 UK 2RS	(SA 20 TE 2RS)	20	16	M20 x 1,5
GAR 25 UK 2RS	(SA 25 TE 2RS)	25	20	M24 x 2
GAR 30 UK 2RS	(SA 30 TE 2RS)	30	22	M30 x 2
GAR 35 UK 2RS	(SAA 35 TE 2RS)	35	25	M36 x 3
GAR 40 UK 2RS	(SAA 40 TE 2RS)	40	28	M39 x 3
GAR 45 UK 2RS	(SAA 45 TE 2RS)	45	32	M42 x 3
GAR 50 UK 2RS	(SAA 50 TE 2RS)	50	35	M45 x 3
GAR 60 UK 2RS	(SAA 60 TE 2RS)	60	44	M52 x 3
GAR 70 UK 2RS	(SAA 70 TE 2RS)	70	49	M56 x 4
GAR 80 UK 2RS	(SAA 80 TE 2RS)	80	55	M64 x 4



Rod end, hard chrome plated / PTFE with inside thread

Art. Nr.		d	B	D <sub>1</sub>
GIR 6 UK	(SI 6 C)	6	6	M6
GIR 8 UK	(SI 8 C)	8	8	M8
GIR 10 UK	(SI 10 C)	10	9	M10
GIR 12 UK	(SI 12 C)	12	10	M12
GIR 15 UK	(SI 15 C)	15	12	M14
GIR 17 UK	(SI 17 C)	17	14	M16
GIR 20 UK	(SI 20 C)	20	16	M20 x 1,5
GIR 25 UK	(SI 25 C)	25	20	M24 x 2
GIR 30 UK	(SI 30 C)	30	22	M30 x 2



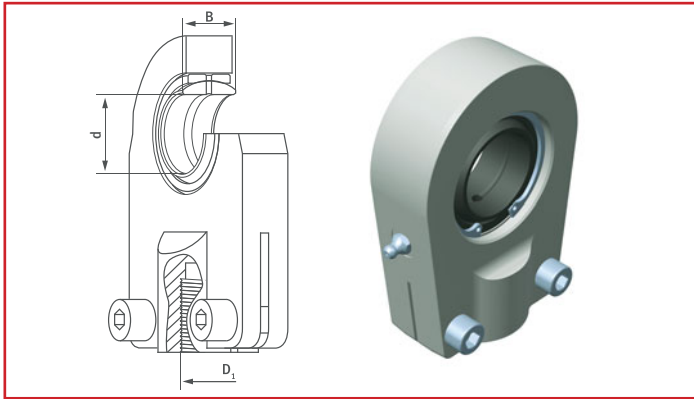
Rod end, hard chrome plated / PTFE with inside thread and sealing

Art. Nr.		d	B	D <sub>1</sub>
GIR 20 UK 2RS	(SA 20 TE 2RS)	20	16	M20 x 1,5
GIR 25 UK 2RS	(SA 25 TE 2RS)	25	20	M24 x 2
GIR 30 UK 2RS	(SA 30 TE 2RS)	30	22	M30 x 2
GIR 35 UK 2RS	(SAA 35 TE 2RS)	35	25	M36 x 3
GIR 40 UK 2RS	(SAA 40 TE 2RS)	40	28	M39 x 3
GIR 45 UK 2RS	(SAA 45 TE 2RS)	45	32	M42 x 3
GIR 50 UK 2RS	(SAA 50 TE 2RS)	50	35	M45 x 3
GIR 60 UK 2RS	(SAA 60 TE 2RS)	60	44	M52 x 3
GIR 70 UK 2RS	(SAA 70 TE 2RS)	70	49	M56 x 4
GIR 80 UK 2RS	(SAA 80 TE 2RS)	80	55	M64 x 4

Permissible working temperature: -60°C - +100°C  
(Applications up to +200°C with possible losses of length of life).

Permissible working temperature: -60°C - +100°C  
(Applications up to +200°C with possible losses of length of life).

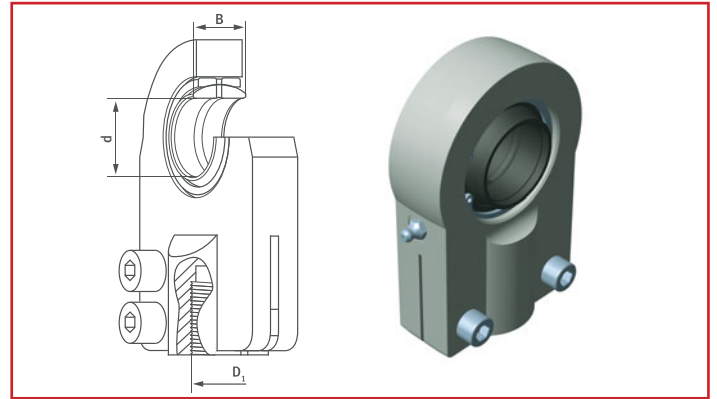
## Hydraulic rod ends



Hydraulic rod end, steel / steel with inside thread clampable

Art. Nr.		d	B	D <sub>1</sub>
GIHR-K 20 DO	(SIR 20 ES)	20	16	M16 x 1,5
GIHR-K 25 DO	(SIR 25 ES)	25	20	M16 x 1,5
GIHR-K 30 DO	(SIR 30 ES)	30	22	M22 x 1,5
GIHR-K 35 DO	(SIR 35 ES)	35	25	M28 x 1,5
GIHR-K 40 DO	(SIR 40 ES)	40	28	M35 x 1,5
GIHR-K 50 DO	(SIR 50 ES)	50	35	M45 x 1,5
GIHR-K 60 DO	(SIR 60 ES)	60	44	M58 x 1,5
GIHR-K 70 DO	(SIR 70 ES)	70	49	M65 x 1,5
GIHR-K 80 DO	(SIR 80 ES)	80	55	M80 x 2
GIHR-K 90 DO	(SIR 90 ES)	90	60	M100 x 2
GIHR-K 100 DO	(SIR 100 ES)	100	70	M110 x 2
GIHR-K 110 DO	(SIR 110 ES)	110	70	M120 x 2
GIHR-K 120 DO	(SIR 120 ES)	120	85	M130 x 2

## Hydraulic rod ends



Hydraulic rod end, steel / steel with inside thread clampable

Art. Nr.		d	B	D <sub>1</sub>
GIHN-K 12 LO	(SIQG 12 ES)	12	12	M12 x 1,25
GIHN-K 16 LO	(SIQG 16 ES)	16	16	M14 x 1,5
GIHN-K 20 LO	(SIQG 20 ES)	20	20	M16 x 1,5
GIHN-K 25 LO	(SIQG 25 ES)	25	25	M20 x 1,5
GIHN-K 32 LO	(SIQG 32 ES)	32	32	M27 x 2
GIHN-K 40 LO	(SIQG 40 ES)	40	40	M33 x 2
GIHN-K 50 LO	(SIQG 50 ES)	50	50	M42 x 2
GIHN-K 63 LO	(SIQG 63 ES)	63	63	M48 x 2
GIHN-K 70 LO	(SIQG 70 ES)	70	70	M56 x 2
GIHN-K 80 LO	(SIQG 80 ES)	80	80	M64 x 2
GIHN-K 90 LO	(SIQG 90 ES)	90	90	M72 x 3
GIHN-K 100 LO	(SIQG 100 ES)	100	100	M80 x 3
GIHN-K 110 LO	(SIQG 110 ES)	110	110	M90 x 3
GIHN-K 125 LO	(SIQG 125 ES)	125	125	M100 x 3
GIHN-K 160 LO	(SIQG 160 ES)	160	160	M125x4
GIHN-K 200 LO	(SIQG 200 ES)	200	200	M160x4

Hydraulic rod end, steel / steel with inside thread non-clampable

Art. Nr.		d	B	D <sub>1</sub>
GIHR 20 DO	(SIRD 20 ES)	20	16	M16 x 1,5
GIHR 25 DO	(SIRD 25 ES)	25	20	M16 x 1,5
GIHR 30 DO	(SIRD 30 ES)	30	22	M22 x 1,5
GIHR 35 DO	(SIRD 35 ES)	35	25	M28 x 1,5
GIHR 40 DO	(SIRD 40 ES)	40	28	M35 x 1,5
GIHR 50 DO	(SIRD 50 ES)	50	35	M45 x 1,5
GIHR 60 DO	(SIRD 60 ES)	60	44	M58 x 1,5
GIHR 70 DO	(SIRD 70 ES)	70	49	M65 x 1,5
GIHR 80 DO	(SIRD 80 ES)	80	55	M80 x 2
GIHR 90 DO	(SIRD 90 ES)	90	60	M100 x 2
GIHR 100 DO	(SIRD 100 ES)	100	70	M110 x 2
GIHR 110 DO	(SIRD 110 ES)	110	70	M120 x 3
GIHR 120 DO	(SIRD 120 ES)	120	85	M130 x 3

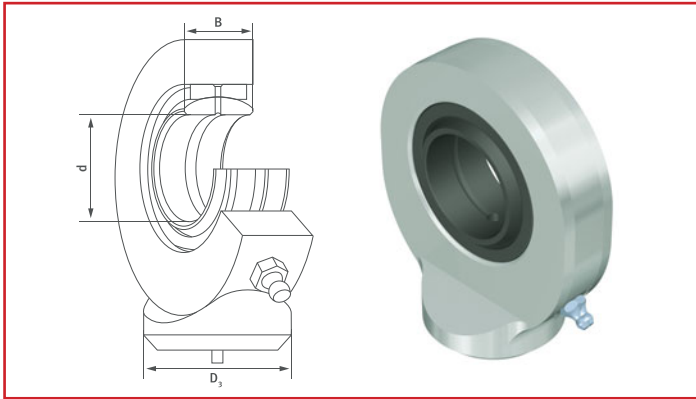
Hydraulic rod end, steel / steel with inside thread clampable

Art. Nr.		d	B	D <sub>1</sub>
GIHO-K 12 DO	(SIJ 12 ES)	12	10	M10 x 1,25
GIHO-K 16 DO	(SIJ 16 ES)	16	14	M12 x 1,25
GIHO-K 20 DO	(SIJ 20 ES)	20	16	M14 x 1,5
GIHO-K 25 DO	(SIJ 25 ES)	25	20	M16 x 1,5
GIHO-K 30 DO	(SIJ 30 ES)	30	22	M20 x 1,5
GIHO-K 40 DO	(SIJ 40 ES)	40	28	M27 x 2
GIHO-K 50 DO	(SIJ 50 ES)	50	35	M33 x 2
GIHO-K 60 DO	(SIJ 60 ES)	60	44	M42 x 2
GIHO-K 80 DO	(SIJ 80 ES)	80	55	M48 x 2
GIHO-K 100 DO	(SIJ 100 ES)	100	70	M64 x 3

Permissible working temperature: -60°C - +150°C  
(Applications up to +250°C with possible losses of length of life).  
Further restrictions through lubricant should be kept in mind.

Permissible working temperature: -60°C - +150°C  
(Applications up to +250°C with possible losses of length of life).  
Further restrictions through lubricant should be kept in mind.

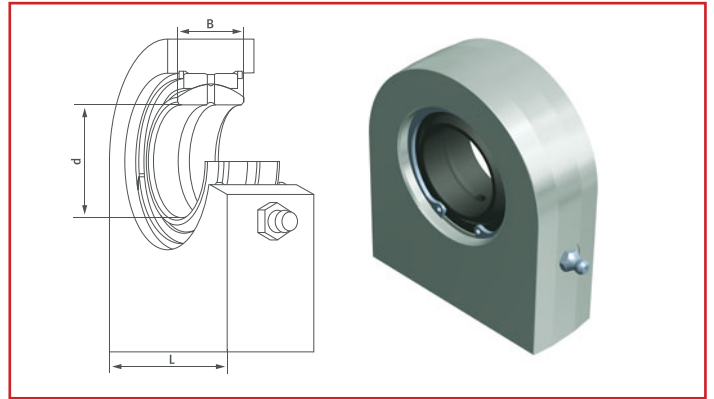
## Hydraulic rod ends



Hydraulic rod end, steel / steel with round weld-on bolt

Art. Nr.		d	B	D <sub>3</sub>
GK 10 DO	(SC 10 ES)	10	9	15,0
GK 12 DO	(SC 12 ES)	12	10	17,5
GK 15 DO	(SC 15 ES)	15	12	21,0
GK 17 DO	(SC 17 ES)	17	14	24,0
GK 20 DO	(SC 20 ES)	20	16	27,5
GK 25 DO	(SC 25 ES)	25	20	33,5
GK 30 DO	(SC 30 ES)	30	22	40,0
GK 35 DO	(SC 35 ES)	35	25	47,0
GK 40 DO	(SC 40 ES)	40	28	52,0
GK 45 DO	(SC 45 ES)	45	32	58,0
GK 50 DO	(SC 50 ES)	50	35	62,0
GK 60 DO	(SC 60 ES)	60	44	70,0
GK 70 DO	(SC 70 ES)	70	49	80,0
GK 80 DO	(SC 80 ES)	80	55	95,0

## Hydraulic rod ends



Hydraulic rod end, steel / steel with angular weld-on bolt

Art. Nr.		d	B	L
GF 20 DO	(SCF 20 ES )	20	16	50
GF 25 DO	(SCF 25 ES )	25	20	55
GF 30 DO	(SCF 30 ES )	30	22	65
GF 35 DO	(SCF 35 ES )	35	25	83
GF 40 DO	(SCF 40 ES )	40	28	100
GF 45 DO	(SCF 45 ES )	45	32	110
GF 50 DO	(SCF 50 ES )	50	35	123
GF 60 DO	(SCF 60 ES )	60	44	140
GF 70 DO	(SCF 70 ES )	70	49	164
GF 80 DO	(SCF 80 ES )	80	55	180
GF 90 DO	(SCF 90 ES )	90	60	226
GF 100 DO	(SCF 100 ES)	100	70	250
GF 110 DO	(SCF 110 ES)	110	70	295
GF 120 DO	(SCF 120 ES)	120	85	360

Permissible working temperature: -60°C - +150°C  
 (Applications up to +250°C with possible losses of length of life).  
 Further restrictions through lubricant should be kept in mind.

Permissible working temperature: -60°C - +150°C  
 (Applications up to +250°C with possible losses of length of life).  
 Further restrictions through lubricant should be kept in mind.