

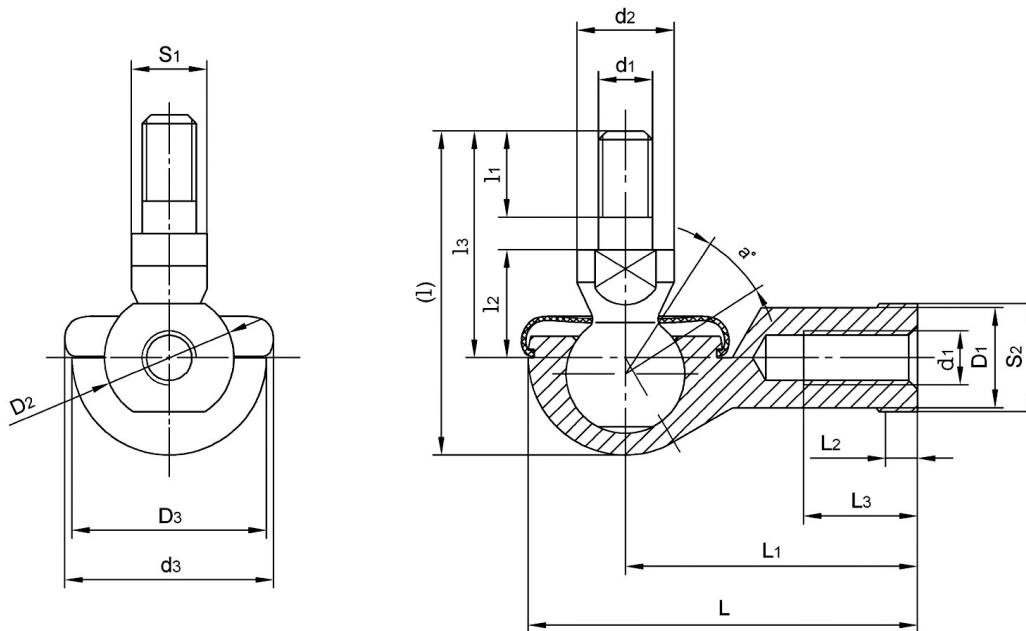
SQ..RS

Ball: Gcr15 Steel

Body: Zinc alloy

Stud: Carbon steel, black oxidized

Sliding contact surfaces: Steel/Zinc base alloy



Bearing No.	Dimensions(mm)																a° mis. angle	Load ratings KN	weight ≈ kg
	d2	d3	d3-6g	l	l1	l2	l3	S1	L	L1	L2	L3	D1	D2	D3	S2			
SQ5-RS	9	19	M5	29	8	10	21	7	35	27	4	14	9	11	16	9	25	2.2	0.026
SQ6-RS	10	20	M6	35.5	11	11	26	8	40	30	5	14	10	13	19	11	25	3.5	0.039
SQ8-RS	12	24	M8	42.5	12	14	31	10	48	36	5	17	12.5	16	23	14	25	6.6	0.068
SQ10-RS	14	30	M10x1.25	50.5	15	17	37	11	57	43	6.5	21	15	19	27	17	25	10	0.112
SQ12-RS	17	32	M12x1.25	57.5	17	19	42	15	66	50	6.5	25	17.5	22	31	19	25	16	0.164
SQ14-RS	19	38	M14x1.5	73.5	22	21.5	56	17	75	57	8	26	20	25	35	22	25	19	0.254
SQ16-RS	22	44	M16x1.5	79.5	23	23.5	60	19	84	64	8	32	22	27	39	22	20	26	0.336
SQ18-RS	23	45	M18x1.5	90	25	26.5	68	20	93	71	10	34	25	31	44	27	20	33	0.464
SQ20-RS	27	50	M20x1.5	90	25	27	68	24	99	77	10	35	27.5	34	44	30	20	45	0.538
SQ22-RS	27	52	M22x1.5	95	26	28	70	24	109	84	12	41	30	37	50	32	16	48	0.713

The shank of ball joint housing may be left-hand thread, for left-hand thread, suffix "L" is added to bearing number and thread sign, e.g. SQL5-RS M5L-6H

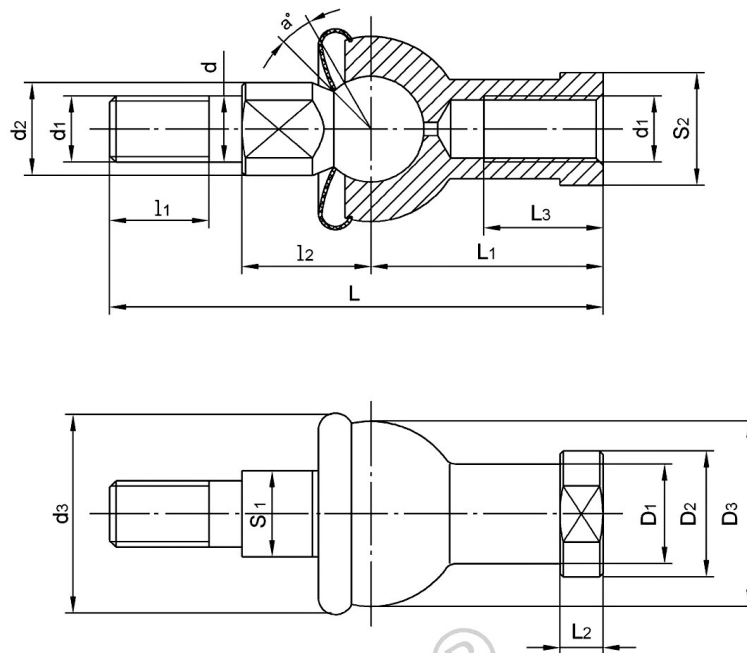
SQZ..RS

Ball: Gcr15 Steel

Body: Zinc alloy

Stud: Carbon steel, black oxidized

Sliding contact surfaces: Steel/Zinc base alloy



Bearing No.	Dimensions(mm)															Static Load KN ratings	a° mis. angle	weight ≈ kg
	d	d3-6g	d2	d3	l1	l2	S1	L	L1	L2	L3	D1	D2	D3	S2			
SQZ5-RS	5	M5	9	19	8	11	7	46	24	4	12	9	11	17	9	2.8	15	0.025
SQZ6-RS	6	M6	10	20	11	12.2	8	55.2	28	5	15	10	13	20	11	3.7	15	0.041
SQZ8-RS	8	M8	12	24	12	16	10	65	32	5	16	12.5	16	24	14	5.8	15	0.075
SQZ10-RS	10	M10x1.25	14	30	15	19.5	11	74.5	35	6.5	18	15	19	28	17	8.4	15	0.12
SQZ12-RS	12	M12x1.25	17	32	17	21	15	84	40	6.5	20	17.5	22	32	19	11	15	0.18
SQZ14-RS	14	M14x1.5	19	38	22	23.5	17	103	45	8	25	20	25	36	22	15	11	0.27
SQZ16-RS	16	M16x1.5	22	44	23	25.5	19	112	50	8	27	22	27	40	22	15	11	0.36
SQZ18-RS	18	M18x1.5	23	45	25	31	20	130.5	58	10	32	25	31	45	27	19	11	0.54
SQZ20-RS	20	M20x1.5	27	50	25	29	24	133	63	10	38	27.5	34	45	30	19	7.5	0.57
SQZ22-RS	22	M22x1.5	27	52	26	33	24	145	70	12	43	30	37	50	32	23	7.5	0.76

The shank of ball joint housing may be left-hand thread, for left-hand thread, suffix "L" is added to bearing number and thread sign, e.g./SQZL5-RS M5L-6H

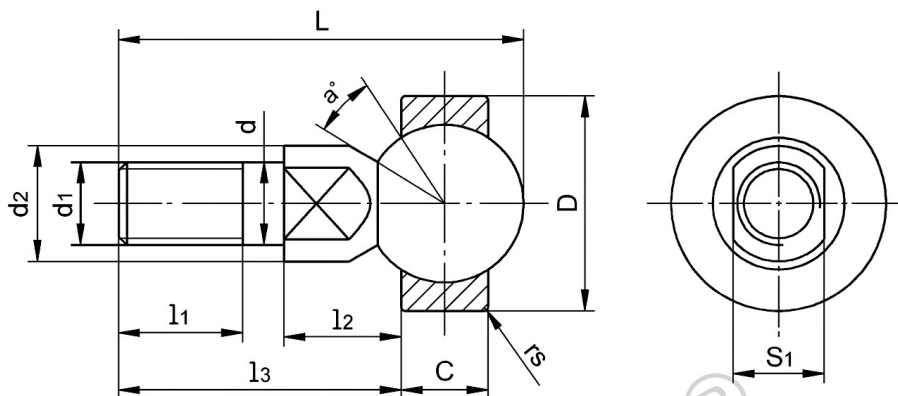
SQD..

Ball: Gcr15 Steel

Body: Zinc alloy

Stud: Carbon steel, black oxidized

Sliding contact surfaces: Steel/Zinc base alloy



Bearing No.	Dimensions(mm)										Static Load ratings KN	α° mis. angle	weight ≈ kg
	d	d3-6g	d2	l2	l3	L	S1	C	D	rs			
SQD5	5	M5	9	8	19	27.5	7	6	16	0.3	2.0	25	0.014
SQD6	6	M6	10	11	23.8	33.5	8	6.75	18	0.3	3.2	25	0.021
SQD8	8	M8	12	12	28.6	41	10	9	22	0.3	5.7	25	0.042
SQD10	10	M10x1.25	14	15	34.2	49	11	10.5	26	0.3	9.2	25	0.067
SQD12	12	M12x1.25	17	17	38.1	55.1	15	12	30	0.5	14	25	0.108
SQD14	14	M14x1.5	19	22	51.3	70.7	17	13.5	34	0.5	19	20	0.167
SQD16	16	M16x1.5	22	23	54.5	76.3	19	15	38	0.5	26	20	0.238

AS BALL JOINT Metric sizes

Material:

Body and ball stud: Low carbon steel.

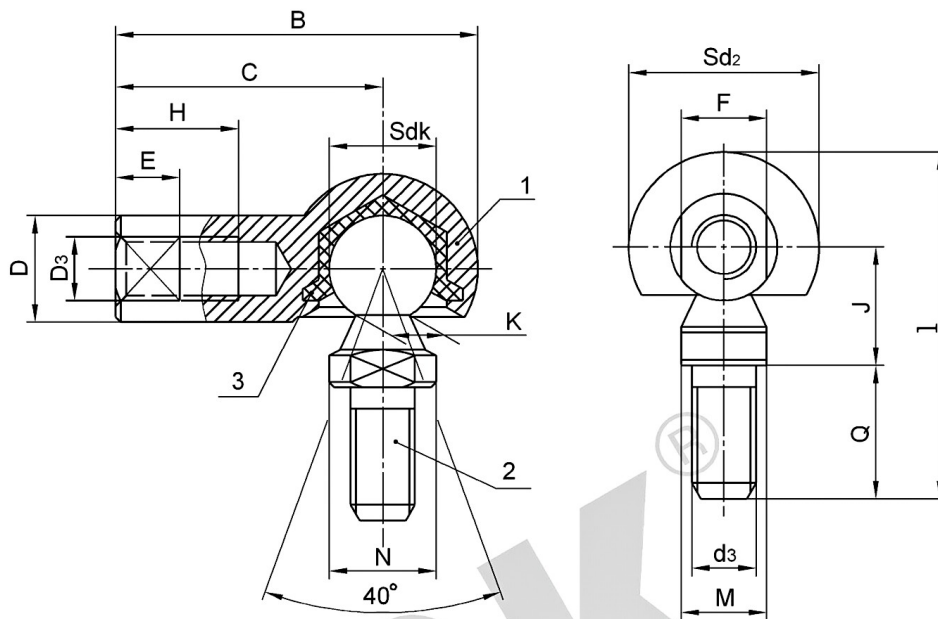
Liner: Nylon polymer.

Protective Finish:

Body and ball stud zinc plated and yellow passivated.

Features

- The Nylon polymer liner provides long life and an ultra smooth bearing surface.
- Optional polychloroprene gaiter available to help resist dirt ingress.
- If a fitted gaiter is required. please add G to the part number e.g. ASG 8.
- Spanner flats on ball studs and bodies facilitate assembly.
- Polished ball for smoother operation.
- Subject to quantity, special threaded bodies and ball studs are available.



Bearing No	Dimensions(mm)																weight Per 100 in kg
	Sd2	H	D3-6H	sdk	d3-62	K	F ⁰ _{-0.2}	M ⁰ _{-0.2}	B	C	E	D	L	Q	J	N	
AS6	17.8	11.5	M6	10	M6	5	8	8	33	25	6	10	32.5	12.5	11	10	2.8
AS8	20.8	14	M8	13	M8	6.5	11	11	40	30	8	13	40	16.5	13	13	4.9
AS10	23.8	15.5	M10	16	M10	8	14	12	46.3	35	10	16	48	20	16	16	8.3
AS12	23.8	25.5	M12	16	M12	8	14	13	56.3	45	12	16	48	20	16	16	9.0



BS BALL JOINT Metric sizes

Body: Grey Nylon polymer with Molybdenum Disulphide additive.

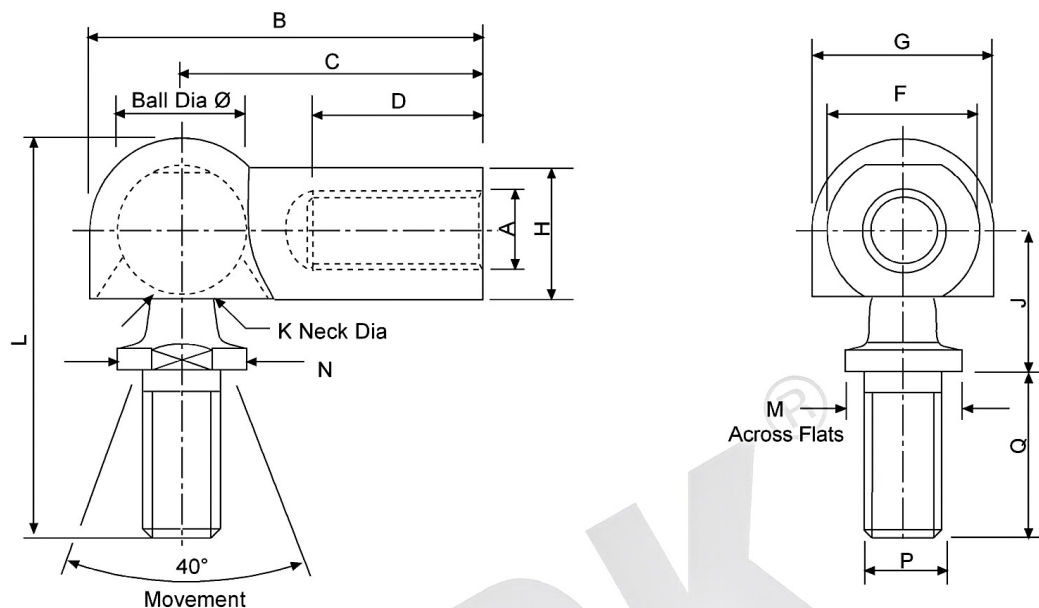
Ball stud: Low carbon steel.

Protective Finish:

Ball stud zinc plated and yellow passivated.

Features

- Body moulded complete in one piece.
- Light weight and low cost.
- High strength to weight ratio.
- Molybdenum Disulphide additive ensures permanent lubrication.
- An optional polychloroprene gaiter available to help resist dirt ingress.
If a fitted gaiter is required, please add G to the part number e.g. BSG 8.
- BM Ball Joint is available without a ball stud for assembly on to a pre-positioned stud.
- Spanner flats on bodies and ball studs facilitate assembly.
- Polished ball for smoother operation.
- Subject to quantity, special Threaded Ball Studs are available.



Part No	Thread I.S.O. A	Dimensions(mm)											Thread I.S.O. P	Q	Ball Dia. Ø	Weight per 100 in Kgs
		B	C	D	F	G	H	J	K	L	M	N				
BS 5	M5x0.8	26.0	20	12	10	12.0	8	9	4.0	25.2	7	8	M5x0.8	10.2	8	0.7
BS 6	M6x1.0	31.2	24	14	12	14.5	10	11	5.0	30.8	8	10	M6x1.0	12.5	10	1.2
BS 8	M8x1.25	39.0	30	17	15	18.0	13	13	6.5	38.5	11	13	M8x1.25	16.5	13	2.9

CS..

CS Ball joint metric size

Material:

Body: low carbon steel.

Ball stud: carbon steel, ball is induction hardened

Inner retaining ring and safety clip: Hard drawn spring steel

Protective Finish:

Ball joint components zinc plated and clear passivated, ball stud,

inner retaining ring and safety clip are de-embrittled,

Features

Ball stud is retained by a captive internal wire ring.

Additional stud retention security is provided by the external wire safety clip.

For improved wear resistance, the ball is induction hardened,

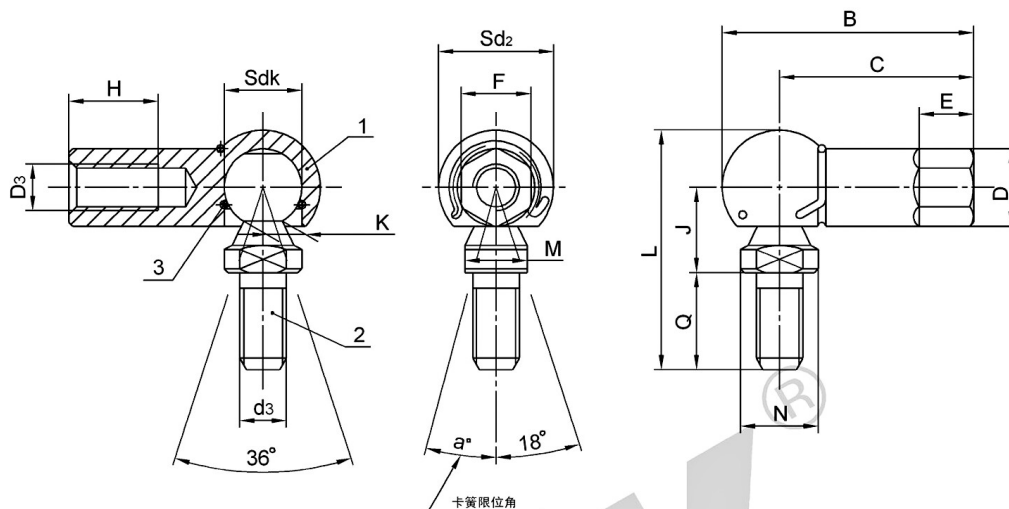
Optional polychloroprene gaiter available to help resist dirt ingress.

If a fitted gaiter is required, please add G to the part number e.g. CSG 8/1.

Hexagon form on body.

Spanner flats are not available on CS 12/1 and 16/1.

Burnished ball for smoother operation.

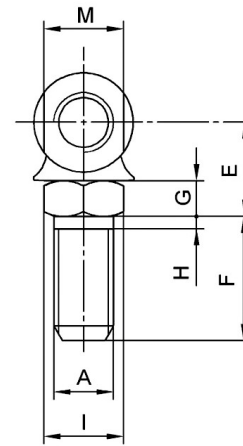
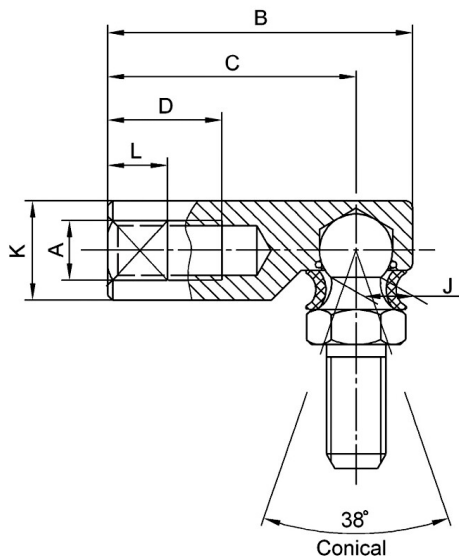


Bearing No.	Dimensions(mm)																	weight Per 100 in kg
	Sd2	H	D3	sdk	d3	K	F	M	a°	B	C	E	D	L	Q	J	N	
CS5/1	12.8	10.2	M5	8	M5	4	7	7	10	28.4	22	5	8	25.4	10.2	9	8	1.3
CS6/1	14.8	11.5	M6	10	M6	5	9	8	15	32.4	25	7	10	30.4	12.5	11	10	2.2
CS8/1	19.3	14	M8	13	M8	6.5	11	11	15	39.6	30	9	13	38.6	16.5	13	13	4.5
CS10/1	24	15.5	M10	16	M10	8	13	13	15	47	35	9	16	47	20	16	16	8.6
CS12/1	24	15.5	M12	16	M12	8	13	13	15	47	35	9	16	47	20	16	16	8.6
CS14/1	30	21.5	M14	19	M14	10	19	16	15	60	45	12	22	63	28	20	19	19.2
CS16/1	30	21.5	M16	19	M16	10	19	16	15	60	45	12	22	63	28	20	19	19.2



R..G

Ball Joint With Rubber Grommet,
SAE J490/Type G/Style 2



Bearing No.	Dimensions(inch/mm)													tensile shear strength (Pounds)	force to remove ball stud (Pounds)
	A UNF	B	C	D	E	F	G	H	I	J	K	M	L		
R103G	10-32	1-1/16	7/8	7/16	7/16	7/16	1/8	1/16	5/16	0.172	3/8	8	6	295	690
		26.98	22.2	11.1	11.1	11.1	3.175	1.6	7.94	4.37	9.52				
R107G	1/4-28	1-7/32	31/32	1/2	15/32	9/16	1/8	3/32	3/8	0.193	7/16	8	6	882	1005
		30.95	24.6	12.7	11.9	14.28	3.175	2.38	9.5	4.9	11.1				
R108G	5/16-24	1-13/32	1-1/8	9/16	17/32	11/16	5/32	3/32	7/16	0.232	1/2	10	7	1587	1282
		35.71	28.58	14.28	13.5	17.46	4	2.38	11.1	5.8	12.7				
R109G	3/8-24	1-11/16	1-3/8	3/4	11/16	7/8	3/16	3/32	1/2	0.287	5/8	13	8	2437	1900
		42.86	34.9	19.05	17.46	22.2	4.76	2.38	12.7	7.29	15.88				
I3-316	3/8-24	1-11/16	1-3/8	3/4	11/16	5/8	3/16	3/32	1/2	0.287	5/8	13	8	2437	1900
		42.86	34.9	19.05	17.46	15.88	4.76	2.38	12.7	7.29	15.88				
R110G	7/16-20	2-3/8	1-15/16	1-1/8	7/8	1-1/8	1/4	1/8	5/8	0.412	3/4	16	10	3390	2700
		60.32	49.2	28.58	22.22	28.58	6.35	3.17	15.88	10.46	19.05				
R111G	1/2-20	2-3/8	1-15/16	1-1/8	7/8	1-1/8	1/4	1/8	5/8	0.412	3/4	16	10	3390	2700
		60.32	49.2	28.58	22.22	28.58	6.35	3.17	15.88	10.46	19.05				

Ball stud: Low carbon steel, heat treated
Zinc plated, yellow dichromate treated

Body: Low carbon steel, zinc plated, yellow
dichromate treated

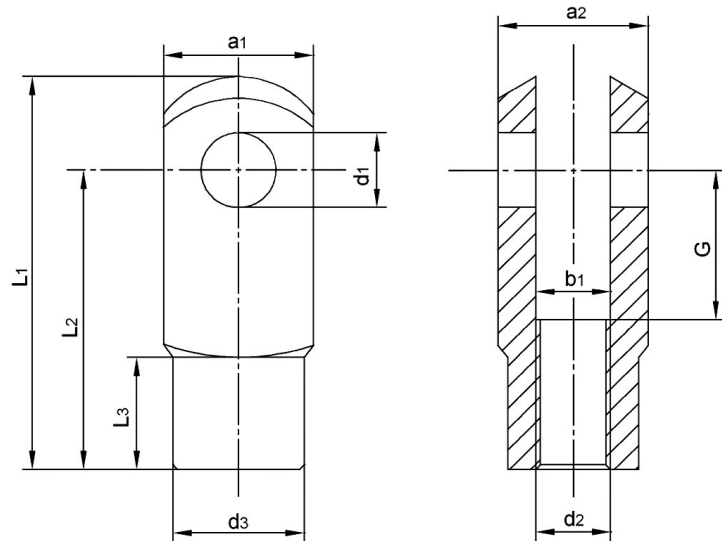
NOTE:

1. This series is also available in male to male and female to female configuration. Consult factory.

CEF DIN71752

Material: S235, Zinc plated

Stainless steel 304 is optional



Bearing No.	d1 H9	G ± 0.5	a1 h11	a2 + 0.30 - 0.16	b + 0.70 - 0.15	d2	d3	L1 ± 0.2	L2 ± 0.4	L3 ± 0.2	weight ≈ Kg
CEF 4x8	4	8	8	8	4	M4	8	21	16	6	0.006
CEF 4x16	4	16	8	8	4	M4	8	29	24	6	0.008
CEF 5x10	5	10	10	10	5	M5	9	26	20	7.5	0.010
CEF 5x20	5	20	10	10	5	M5	9	36	30	7.5	0.014
CEF 6x12	6	12	12	12	6	M6	10	31	24	9	0.016
CEF 6x24	6	24	12	12	6	M6	10	43	36	9	0.023
CEF 8x16	8	16	16	16	8	M8	14	42	32	12	0.038
CEF 8x32	8	32	16	16	8	M8	14	58	48	12	0.055
CEF 10x20	10	20	20	20	10	M10	18	52	40	15	0.080
CEF 10x40	10	40	20	20	10	M10	18	72	60	15	0.120
CEF 12x24	12	24	24	24	12	M12	20	62	48	18	0.125
CEF 12x48	12	48	24	24	12	M12	20	86	72	18	0.180
CEF 14x28	14	28	28	28	14	M14	24	72	56	22.5	0.190
CEF 14x56	14	56	28	28	14	M14	24	101	85	22.5	0.265
CEF 16x32	16	32	32	32	16	M16	26	83	64	24	0.300
CEF 16x64	16	64	32	32	16	M16	26	115	96	24	0.430

All dimensions are in MM.

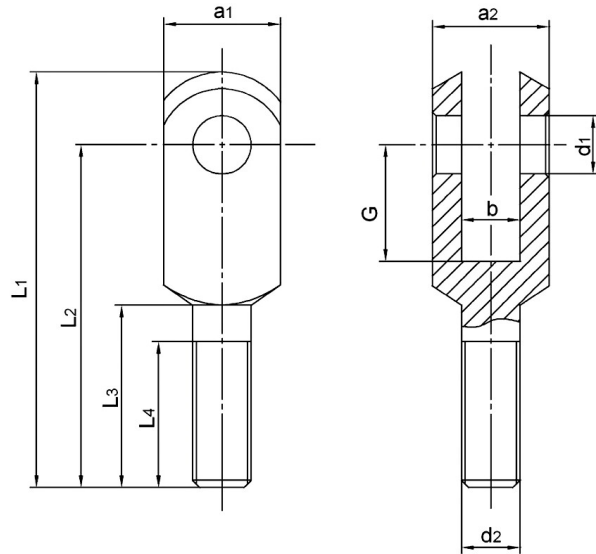
Different thread is available upon request.



CEM DIN71752

Material: S235, Zinc plated

Stainless steel 304 is optional



Bearing No.	d1 H9	G ± 0.5	a1 h11	a2 + 0.30 - 0.16	b + 0.70 - 0.15	d2	L1 ± 0.2	L2 ± 0.4	L3 ± 0.2	L4	weight ≈ Kg
CEM 6x12	6	12	12	12	6	M6x1	44	37	20	15	0.015
CEM 8x16	8	16	16	16	8	M8x1.25	57	47	25	20	0.036
CEM 10x20	10	20	20	20	10	M10x1.5	69	57	30	25	0.068
CEM 12x24	12	24	24	24	12	M12x1.75	82	68	35	30	0.122
CEM 14x28	14	28	27	27	14	M14x2	94	78	40	35	0.171
CEM 16x32	16	32	32	32	16	M16x2	108	89	45	40	0.288
CEM 20x40	20	40	40	40	20	M20x2.5	134	109	55	50	0.550

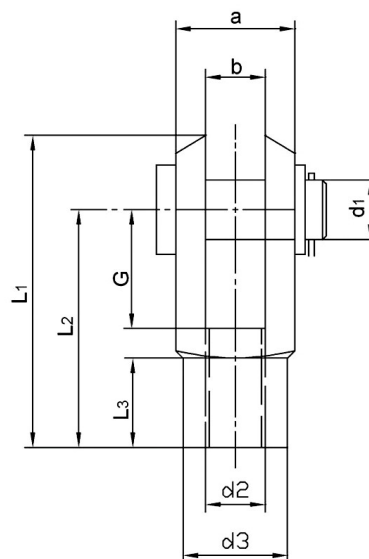
All dimensions are in MM.

Different thread is available upon request.

Y DIN71751

Material: S235, Zinc plated

Stainless steel 304 is optional



Bearing No.	d1	G	a	b	d2	d3	L1	L2	L3	weight ≈ Kg
Y 4x8	4	8	8	4	M4	8	21	16	6	0.006
Y 4x16	4	16	8	4	M4	8	29	24	6	0.008
Y 5x10	5	10	10	5	M5	9	26	20	7.5	0.010
Y 5x20	5	20	10	5	M5	9	36	30	7.5	0.014
Y 6x12	6	12	12	6	M6	10	31	24	9	0.016
Y 6x24	6	24	12	6	M6	10	43	36	9	0.023
Y 8x16	8	16	16	8	M8	14	42	32	12	0.038
Y 8x32	8	32	16	8	M8	14	58	48	12	0.055
Y 10x20	10	20	20	10	M10	18	52	40	15	0.080
Y 10x40	10	40	20	10	M10	18	72	60	15	0.120
Y 12x24	12	24	24	12	M12	20	62	48	18	0.125
Y 12x48	12	48	24	12	M12	20	86	72	18	0.180
Y 14x28	14	28	28	14	M14	24	72	56	22.5	0.190
Y 14x56	14	56	28	14	M14	24	101	85	22.5	0.265
Y 16x32	16	32	32	16	M16	26	83	64	24	0.300
Y 16x64	16	64	32	16	M16	26	115	96	24	0.430

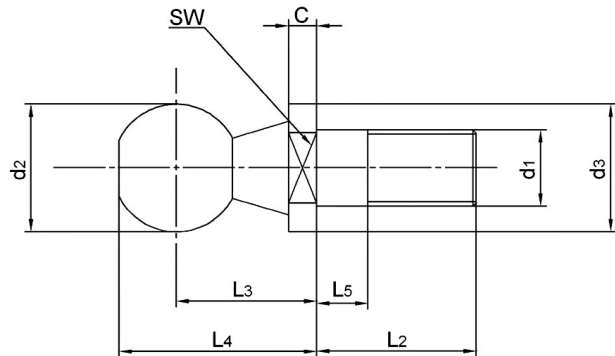
All dimensions are in MM.

Different thread is available upon request.

BSM DIN71803

Material: Carbon steel 1035,welded with ball

Surface treatment: Galvanized,passivated in
Zinc/clear or Zinc/Yellow Optional 304 stainless
steel



Bearing No.	d2	d1	d3	L2 ± 0.3	L3 ± 0.3	L4 ± 0.3	L5 max	SW h14	C	weight ≈ Kg
BSM5	8	M5	8	10.2	9	12.5	4.0	7	2.0	0.004
BSM6	10	M6	10	12.5	11	15.5	4.0	8	2.2	0.008
BSM8	13	M8	13	16.5	13	18.5	5.3	11	2.4	0.016
BSM10	16	M10	16	20.0	16	23.0	7.3	13	2.7	0.024
BSM12	16	M12	16	20.0	16	23.0	7.3	13	2.7	0.030
BSM14	19	M14	19	28.0	20	28.5	10.8	16	3.0	0.056
BSM16	19	M16	19	28.0	20	28.5	10.8	16	3.0	0.063

All dimensions are in MM.

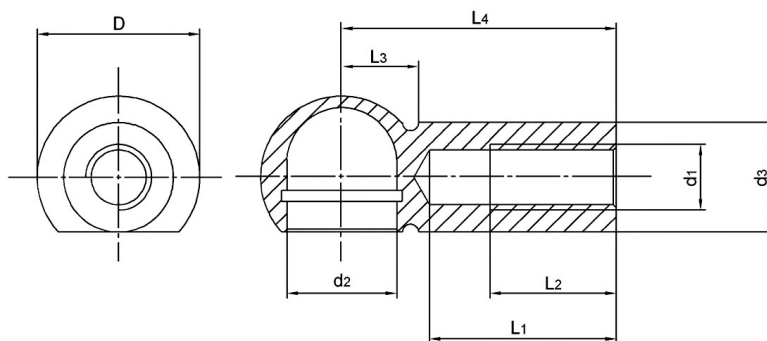
Different thread or dimensions are optional upon request.

BS DIN71805

Material: Carbon steel 1035

Surface treatment: Galvanized,
passivated in Zinc/clear or Zinc/Yellow

Optional 304 stainless steel



Bearing No.	d_2	d_1	d_3 ± 0.3	D ± 0.5	L_1 max	L_2 min	L_3 ± 0.5	a ± 0.3	weight $\approx$ Kg
BS5	8	M5	8	12.8	15	10.2	6.3	22	0.009
BS6	10	M6	10	14.8	17	11.5	7.0	25	0.014
BS8	13	M8	13	19.3	20	14.0	9.1	30	0.029
BS10	16	M10	16	24.0	22	15.5	11.4	35	0.057
BS12	16	M12	16	24.0	22	15.5	11.4	35	0.056
BS14	19	M14	22	30.0	28	21.5	12.5	45	0.125
BS16	19	M16	22	30.0	28	21.5	12.5	45	0.120

All dimensions are in MM.

Different thread or dimensions are optional upon request.