

Clevises - Rod Ends - Ball Joints



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Clevises

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Clevises - G Series

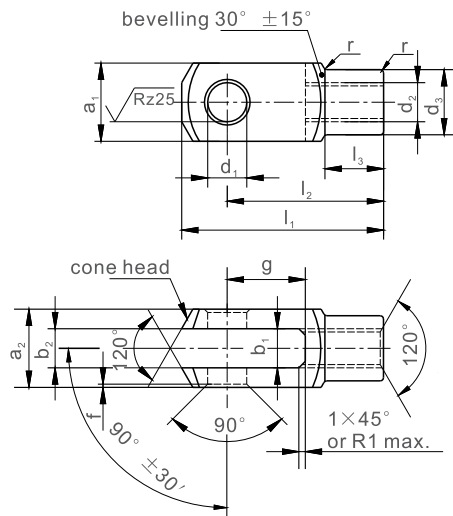


DIN71752 / DIN ISO8140 / CETOP

AVAILABLE ► ZINC PLATED

SS 304

SS 316



Part No.	Dimensions (mm)													Weight (kg)			
	d ₁	g	a ₁	a ₂	b ₁	b ₂		d ₂		d ₃	f	l ₁	l ₂		l ₃	r	
	H9	±0.5	h11	+0.30 -0.16	B13	Adm. Variation		Regular thread	Fine-pitch thread	±0.3	±0.2	±0.5	Adm. Variation		±0.2	Kg=	
G 4 × 8	4	8	8	8	4	4	B13	M4 × 0.7		8	0.5	21	16	± 0.3	6.0	0.5	0.005
G 4 × 16	4	16	8	8	4	4	B13	M4 × 0.7		8	0.5	29	24	± 0.3	6.0	0.5	0.007
G 5 × 10	5	10	10	10	5	5	B13	M5 × 0.8		9	0.5	26	20	± 0.3	7.5	0.5	0.009
G 5 × 20	5	20	10	10	5	5	B13	M5 × 0.8		9	0.5	36	30	± 0.3	7.5	0.5	0.013
G 6 × 12	6	12	12	12	6	6	B13	M6 × 1		10	0.5	31	24	± 0.3	9.0	0.5	0.015
G 6 × 24	6	24	12	12	6	6	B13	M6 × 1		10	0.5	43	36	± 0.4	9.0	0.5	0.021
G 8 × 16	8	16	16	16	8	8	B13	M8 × 1.25		14	0.5	42	32	± 0.4	12.0	0.5	0.037
G 8 × 16 MF	8	16	16	16	8	8	B13		M8 × 1	14	0.5	42	32	± 0.4	12.0	0.5	0.037
G 8 × 32	8	32	16	16	8	8	B13	M8 × 1.25		14	0.5	58	48	± 0.4	12.0	0.5	0.054
G 8 × 32 MF	8	32	16	16	8	8	B13		M8 × 1	14	0.5	58	48	± 0.4	12.0	0.5	0.054
G 10 × 20	10	20	20	20	10	10	B13	M10 × 1.5		18	0.5	52	40	± 0.4	15.0	0.5	0.074
G 10 × 20 MF	10	20	20	20	10	10	B13		M10 × 1.25	18	0.5	52	40	± 0.4	15.0	0.5	0.074
G 10 × 40	10	40	20	20	10	10	+0.7 +0.15	M10 × 1.5		18	0.5	72	60	± 0.4	15.0	0.5	0.116
G 10 × 40 MF	10	40	20	20	10	10	+0.7 +0.15		M10 × 1.25	18	0.5	72	60	± 0.4	15.0	0.5	0.116
G 12 × 24	12	24	24	24	12	12	+0.7 +0.15	M12 × 1.75		20	0.5	62	48	± 0.4	18.0	0.5	0.121
G 12 × 24 MF	12	24	24	24	12	12	+0.7 +0.15		M12 × 1.25	20	0.5	62	48	± 0.4	18.0	0.5	0.121
G 12 × 48	12	48	24	24	12	12	+0.7 +0.15	M12 × 1.75		20	0.5	86	72	± 0.4	18.0	0.5	0.175
G 12 × 48 MF	12	48	24	24	12	12	+0.7 +0.15		M12 × 1.25	20	0.5	86	72	± 0.4	18.0	0.5	0.175
G 14 × 28	14	28	27	27	14	14	+0.7 +0.15	M14 × 2		24	1.0	72	56	± 0.4	22.5	1.0	0.178
G 14 × 28 MF	14	28	27	27	14	14	+0.7 +0.15		M14 × 1.5	24	1.0	72	56	± 0.4	22.5	1.0	0.178
G 14 × 56	14	56	27	27	14	14	+0.7 +0.15	M14 × 2		24	1.0	101	85	± 0.4	22.5	1.0	0.258
G 14 × 56 MF	14	56	27	27	14	14	+0.7 +0.15		M14 × 1.5	24	1.0	101	85	± 0.4	22.5	1.0	0.258
G 16 × 32	16	32	32	32	16	16	+0.7 +0.15	M16 × 2		26	1.0	83	64	± 0.4	24.0	1.0	0.282
G 16 × 32 MF	16	32	32	32	16	16	+0.7 +0.15		M16 × 1.5	26	1.0	83	64	± 0.4	24.0	1.0	0.282
G 16 × 64	16	64	32	32	16	16	+0.7 +0.15	M16 × 2		26	1.0	115	96	± 0.4	24.0	1.0	0.411
G 16 × 64 MF	16	64	32	32	16	16	+0.7 +0.15		M16 × 1.5	26	1.0	115	96	± 0.4	24.0	1.0	0.411

Part No.	Dimensions (mm)														Weight (kg)		
	d ₁	g	a ₁	a ₂	b ₁	b ₂		d ₂		d ₃	f	l ₁	l ₂		l ₃	r	Kg=
	H9	±0.5	h11	+0.50 -0.20	B13		Adm. Variation	Regular thread	Fine-pitch thread	±0.3	±0.2	±0.5		Adm. Variation	±0.3		
G 18 × 36	18	36	36	36	18	18	+0.7 +0.15	M18 × 2.5		30	1.0	94	72	± 0.4	27.0	1.5	0.39
G 18 × 36 MF	18	36	36	36	18	18	+0.7 +0.15		M18 × 1.5	30	1.0	94	72	± 0.4	27.0	1.5	0.39
G 20 × 40	20	40	40	40	20	20	+0.7 +0.15	M20 × 2.5		34	1.0	105	80	± 0.4	30.0	1.5	0.55
G 20 × 40 MF	20	40	40	40	20	20	+0.7 +0.15		M20 × 1.5	34	1.0	105	80	± 0.4	30.0	1.5	0.55
G 20 × 80	20	80	40	40	20	20	+0.7 +0.15	M20 × 2.5		34	1.0	145	120	± 0.4	30.0	1.5	0.80
G 20 × 80 MF	20	80	40	40	20	20	+0.7 +0.15		M20 × 1.5	34	1.0	145	120	± 0.4	30.0	1.5	0.80
G 25 × 50	25	50	50	50	25	25	+0.7 +0.15	M24 × 3		42	1.5	132	100	± 0.4	36.0	1.5	1.10
G 25 × 50 MF	25	50	50	50	25	25	+0.7 +0.15		M24 × 2	42	1.5	132	100	± 0.4	36.0	1.5	1.10
G 28 × 56	28	56	55	55	28	28	+0.7 +0.15	M27 × 3		48	1.5	148	112	± 0.4	40.0	2.0	1.50
G 28 × 56 MF	28	56	55	55	28	28	+0.7 +0.15		M27 × 2	48	1.5	148	112	± 0.4	40.0	2.0	1.50
G 30 × 54 MF	30	54	55	55	30	30	+0.7 +0.15		M27 × 2	48	1.5	148	110	± 0.4	40.0	2.0	1.44
G 30 × 60	30	60	60	60	30	30	+0.7 +0.15	M30 × 3.5		52	1.5	160	120	± 0.4	42.0	2.0	1.97
G 30 × 60 MF	30	60	60	60	30	30	+0.7 +0.15		M30 × 2	52	1.5	160	120	± 0.4	42.0	2.0	1.97
G 35 × 54 MF	35	54	70	70	35	35	+0.7 +0.15		M36 × 2	60	2.0	188	144	± 0.4	54.0	3.0	2.93
G 35 × 72	35	72	70	70	35	35	+0.7 +0.15	M36 × 4		60	2.0	188	144	± 0.4	54.0	3.0	2.93
G 35 × 72 MF	35	72	70	70	35	35	+0.7 +0.15		M36 × 2	60	2.0	188	144	± 0.4	54.0	3.0	2.93
G 36 × 72	35	72	70	70	36	36	+0.7 +0.15	M36 × 4		60	2.0	188	144	± 0.4	54.0	3.0	2.93
G 36 × 72 MF	35	72	70	70	36	36	+0.7 +0.15		M36 × 2	60	2.0	188	144	± 0.4	54.0	3.0	2.93
G 40 × 84 MF	40	84	85	85	40	40	+0.7 +0.15		M42 × 2	70	3.0	232	168	± 0.4	63.5	5.0	5.64
G 42 × 84	42	84	85	85	42	42	+0.7 +0.15	M42 × 4.5		70	3.0	232	168	± 0.4	63.5	5.0	5.34
G 42 × 84 MF	42	84	85	85	42	42	+0.7 +0.15		M42 × 2	70	3.0	232	168	± 0.4	63.5	5.0	5.34
G 50 × 96	50	96	96	96	50	50	+0.7 +0.15	M48 × 5		82	3.0	265	192	± 0.4	73.0	5.0	7.86
G 50 × 96 MF	50	96	96	96	50	50	+0.7 +0.15		M48 × 2	82	3.0	265	192	± 0.4	73.0	5.0	7.86

Code of thread: fine-pitch thread - MF, left-handed thread - L, fine-pitch and left-handed thread-MFL.

Material and surface treatments:

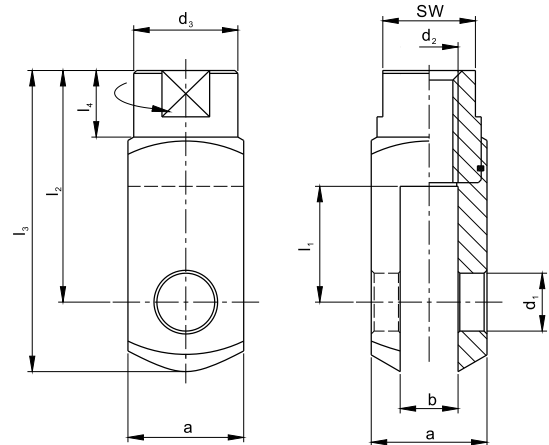
- 1) Low carbon steel. Coated with rust-proof oil or zinc plating.
 - 2) Alternative stainless steel 304 or stainless steel 316.
- Specials on request (only volumes).

Clevises - GR Series



WITH ROTATING SHAFT

AVAILABLE ► ZINC PLATED



Part No.	Dimensions (mm)										Static load (N)	Weight (kg)
	a	b	d ₁	d ₂	d ₃	l ₁	l ₂	l ₃	l ₄	sw		
GR 4 × 8	8	4	4	M4	8	8	16	21	3.0	6	500	0.006
GR 4 × 16	8	4	4	M4	8	16	24	29	3.0	6	500	0.008
GR 5 × 10	10	5	5	M5	9	10	20	26	4.0	7	800	0.010
GR 5 × 20	10	5	5	M5	9	20	30	36	4.0	7	800	0.014
GR 6 × 12	12	6	6	M6	10	12	24	31	5.5	9	2400	0.016
GR 6 × 24	12	6	6	M6	10	24	36	43	5.5	9	2400	0.023
GR 8 × 16	16	8	8	M8	14	16	32	42	8.0	12	3400	0.038
GR 8 × 32	16	8	8	M8	14	32	48	58	8.0	12	3400	0.055
GR 10 × 20	20	10	10	M10	18	20	40	52	11.5	16	6000	0.080
GR 10 × 40	20	10	10	M10	18	40	60	72	11.5	16	6000	0.120
GR 12 × 24	24	12	12	M12	20	24	48	62	14.0	18	14000	0.125
GR 12 × 48	24	12	12	M12	20	48	72	86	14.0	18	14000	0.180
GR 14 × 28	27	14	14	M14	24	28	56	72	18.5	22	16000	0.190
GR 14 × 56	27	14	14	M14	24	56	85	101	18.5	22	16000	0.265
GR 16 × 32	32	16	16	M16	26	32	64	83	20.0	24	18000	0.300
GR 16 × 64	32	16	16	M16	26	64	96	115	20.0	24	18000	0.430

Code of thread: fine-pitch thread - MF, left-handed thread-L, fine-pitch and left-handed thread-MFL.

Material and surface treatments:

Fork: low carbon steel. Coated with rust-proof oil or zinc plating.

Shaft: medium carbon steel. Coated with rust-proof oil or zinc plating.

Ring: spring steel. Coated with rust-proof oil or zinc plating.

Specials on request (only volumes).

Clevises - GT Series

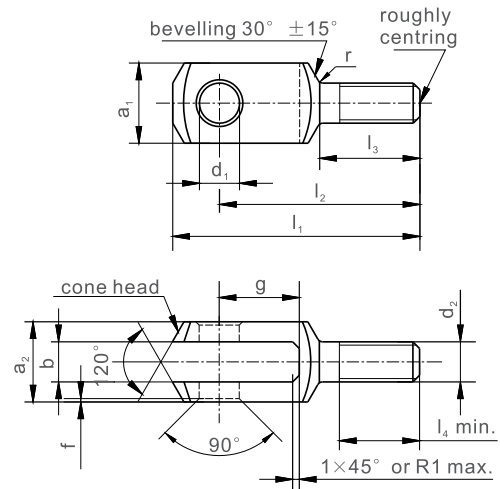


WITH MALE THREAD - DIN71752 / DIN ISO8140 / CETOP

AVAILABLE ▶ ZINC PLATED

SS 304

SS 316



Part No.	Dimensions (mm)											Weight (kg)		
	d ₁	g	a ₁	a ₂	b	d ₂		f	l ₁	l ₂	l ₃		l ₄	r
	H9	±0.5	h11	+0.50 -0.20	+0.7 -0.15		Regular thread	Fine-pitch thread	±0.2	±0.2	±0.4	±0.2		
GT 6 × 12	6	12	12	12	6	M6 × 1	-	0.5	44	37	20	15	0.8	0.015
GT 8 × 16	8	16	16	16	8	M8 × 1.25	-	0.5	57	47	25	20	0.8	0.036
GT 10 × 20	10	20	20	20	10	M10 × 1.5	-	0.5	69	57	30	25	0.8	0.068
GT 12 × 24	12	24	24	24	12	M12 × 1.75	-	0.5	82	68	35	30	0.8	0.122
GT 14 × 28	14	28	27	27	14	M14 × 2	-	1.0	94	78	40	35	1.2	0.171
GT 16 × 32	16	32	32	32	16	M16 × 2	-	1.0	108	89	45	40	1.2	0.288
GT 20 × 40	20	40	40	40	20	M20 × 2.5	-	1.0	134	109	55	50	1.5	0.550

Code of thread: fine-pitch thread - MF, left-handed thread - L, fine-pitch and left-handed thread-MFL.

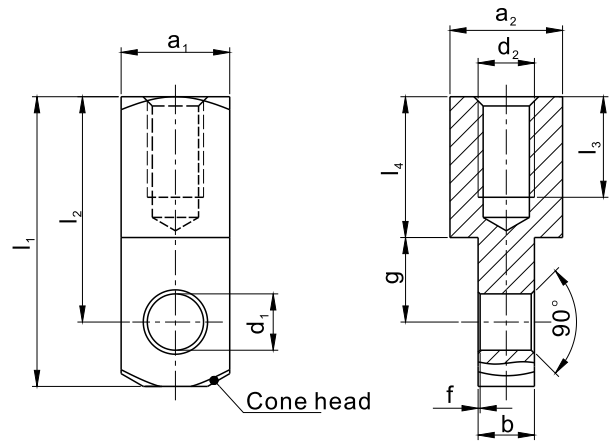
Material and surface treatments:

- 1) Low carbon steel. Coated with rust-proof oil or zinc plating.
 - 2) Alternative stainless steel 304 or stainless steel 316.
- Specials on request (only volumes).

Knuckle Eyes - GE Series



AVAILABLE ► ZINC PLATED SS 304 SS 316

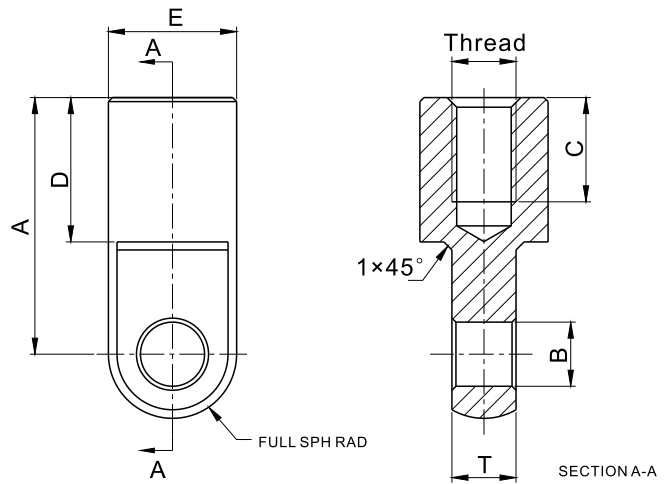


Part No.	Dimensions (mm)											Weight (kg)	
	d ₁	g	a ₁	a ₂	b	d ₂		f	l ₁	l ₂	l ₃		l ₄
	H9	±0.5	h11	h11	-0.2	Regular thread	Fine-pitch thread	±0.2	±0.5	±0.3		±0.2	Kg≈
GE 4 × 8	4	6	8	8	4	M4 × 0.7		0.5	21	16	6	10.0	0.006
GE 5 × 10	5	7.5	10	10	5	M5 × 0.8		0.5	26	20	8	12.5	0.012
GE 6 × 12	6	9	12	12	6	M6 × 1		0.5	31	24	11	15.0	0.021
GE 8 × 16	8	12	16	16	8	M8 × 1.25		0.5	42	32	14	20.0	0.051
GE 8 × 16MF	8	12	16	16	8		M8 × 1	0.5	42	32	14	20.0	0.051
GE 10 × 20	10	15	20	20	10	M10 × 1.5		0.5	52	40	18	25.0	0.098
GE 10 × 20MF	10	15	20	20	10		M10 × 1.25	0.5	52	40	18	25.0	0.098
GE 12 × 24	12	18	24	24	12	M12 × 1.75		0.5	62	48	22	30.0	0.168
GE 12 × 24MF	12	18	24	24	12		M12 × 1.25	0.5	62	48	22	30.0	0.167
GE 14 × 28	14	21	27	27	14	M14 × 2		1.0	72	56	25	35.0	0.247
GE 14 × 28MF	14	21	27	27	14		M14 × 1.5	1.0	72	56	25	35.0	0.245
GE 16 × 32	16	24	32	32	16	M16 × 2		1.0	83	64	30	40.0	0.397
GE 16 × 32MF	16	24	32	32	16		M16 × 1.5	1.0	83	64	30	40.0	0.395
GE 20 × 40	20	30	40	40	20	M20 × 2.5		1.0	105	80	38	50.0	0.783
GE 20 × 40MF	20	30	40	40	20		M20 × 1.5	1.0	105	80	38	50.0	0.776

Code of thread: fine-pitch thread - MF, left-handed thread - L, fine-pitch and left-handed thread - MFL.

Material and surface treatments:

- 1) Low carbon steel. Coated with rust-proof oil or zinc plating
 - 2) Alternative stainless steel 304 or stainless steel 316.
- Specials on request (only volumes).



Part No.	Dimensions (mm)						
	Thread	A	B	C	D	E	T
	6H	±0.25	+0.1 -0	min	±0.25	±0.12	±0.12
GKE 5	M5 × 0.8	22	6.10	9.00	12.50	12.70	5.00
GKE 6	M6 × 1	25	8.10	10.50	14.00	12.70	6.00
GKE 8	M8 × 1.25	32	8.10	12.70	18.00	16.00	8.00
GKE 10	M10 × 1.5	32	10.10	12.50	18.00	16.00	10.00

Code of thread: fine-pitch thread - MF, left-handed thread - L, fine-pitch and left-handed thread - MFL.

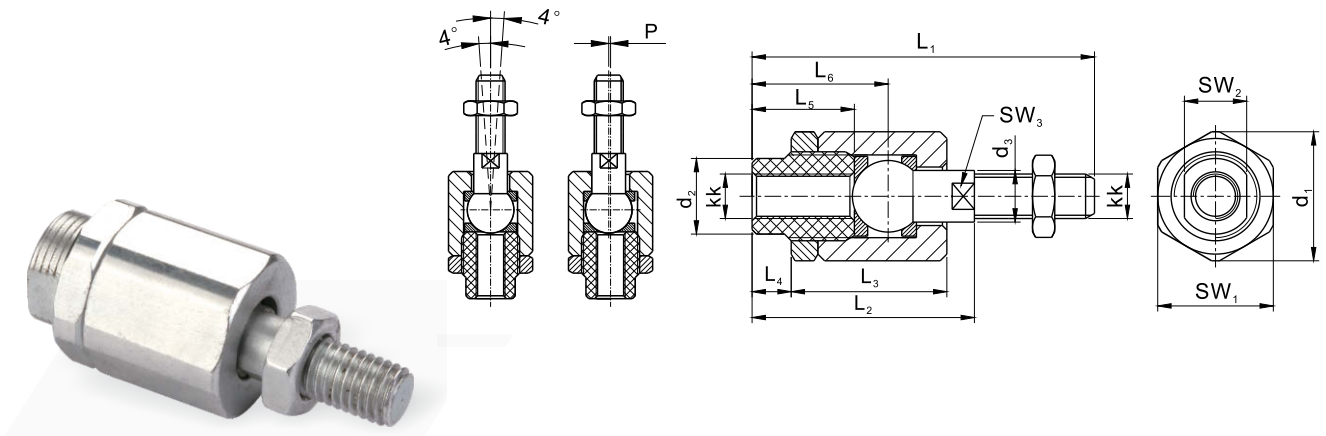
Material and surface treatments:

- 1) Low carbon steel. Coated with rust-proof oil or zinc plating.
 - 2) Alternative stainless steel 304 or stainless steel 316.
- Specials on request (only volumes).

Self-aligned Articulated Couplings - GI Series



AVAILABLE ► ZINC PLATED SS 304



Part No.	Dimensions (mm)															Weight (kg)
	d ₁	d ₂	d ₃	kk	L ₁	L ₂	L ₃	L ₄	L ₅	L ₆	SW ₁	SW ₂	SW ₃	P		
GI M4 × 0.7	/	/	3.8	M4 × 0.7	33.0	24.0	16.5	4.5	12.5	16.0	11	11	3.2	0.5	0.015	
GI 6-32	/	/	3.8	6-32 UNC-2B	33.0	24.0	16.5	4.5	12.5	16.0	11	11	3.2	0.5	0.015	
GI 10-32	/	/	3.8	10-32 UNF-2B	33.0	24.0	16.5	4.5	12.5	16.0	11	11	3.2	0.5	0.015	
GI M5 × 0.8	14.5	8.5	5.8	M5 × 0.8	38.5	25.0	17.5	4.4	11.5	15.7	13	7	5	0.5	0.020	
GI M6 × 1	14.5	8.5	5.8	M6 × 1	37.0	25.0	17.5	4.4	11.5	15.7	13	7	5	0.5	0.023	
GI M8 × 1.25	19.0	12.5	7.8	M8 × 1.25	49.0	34.0	23.5	6.0	14.0	20.5	17	10	7	0.5	0.050	
GI 5/16-24	19.0	12.5	7.8	5/16-24 UNF-2B	49.0	34.0	23.5	6.0	14.0	20.5	17	10	7	0.5	0.050	
GI M10 × 1.5	32.5	21.4	13.8	M10 × 1.5	67.5	49.5	34.0	9.0	23.0	31.0	30	19	12	0.7	0.210	
GI M10 × 1.25	32.5	21.4	13.8	M10 × 1.25	69.5	49.5	34.0	9.0	23.0	31.0	30	19	12	0.7	0.210	
GI 3/8-24	32.5	21.4	13.8	3/8-24 UNF-2B	69.5	49.5	34.0	9.0	23.0	31.0	30	19	12	0.7	0.210	
GI M12 × 1.75	32.5	21.4	13.8	M12 × 1.75	70.5	49.5	34.0	9.0	23.0	31.0	30	19	12	0.7	0.210	
GI M12 × 1.25	32.5	21.4	13.8	M12 × 1.25	74.5	50.5	34.0	10.0	24.0	32.0	30	19	12	0.7	0.215	
GI 1/2-20	32.5	21.4	13.8	1/2-20 UNF-2B	74.5	50.5	34.0	10.0	24.0	32.0	30	19	12	0.7	0.215	
GI M16 × 2	45.0	33.8	22.0	M16 × 2	97.0	71.0	53.0	10.0	32.0	44.5	41	30	19	1.0	0.670	
GI M16 × 1.5	45.0	33.8	22.0	M16 × 1.5	103.0	71.0	53.0	10.0	32.0	44.5	41	30	19	1.0	0.650	
GI 5/8-18	45.0	33.8	22.0	5/8-18 UNF-2B	103.0	71.0	53.0	10.0	32.0	44.5	41	30	19	1.0	0.650	
GI M20 × 1.5	45.0	33.8	22.0	M20 × 1.5	120.0	80.0	53.0	19.0	41.0	53.5	41	30	19	1.0	0.720	
GI 3/4-16	45.0	33.8	22.0	3/4-16 UNF-2B	120.0	80.0	53.0	19.0	41.0	53.5	41	30	19	1.0	0.720	
GI M27 × 2	62.0	61.7	27.9	M27 × 2	156.9	102.9	79.0	12.2	42.0	62.6	55	55	24	1.0	2.100	
GI 1-12	62.0	61.7	27.9	1-12 UNF-2B	156.9	102.9	79.0	12.2	42.0	62.6	55	55	24	1.0	2.100	
GI M36 × 2	80.0	80.0	38.0	M36 × 2	251.0	179.0	136.0	22.0	78.0	110.0	75	75	32	1.0	5.800	
GI 1 1/2-12	80.0	80.0	38.0	1 1/2-12 UNF-2B	251.0	179.0	136.0	22.0	78.0	110.0	75	75	32	1.0	5.800	

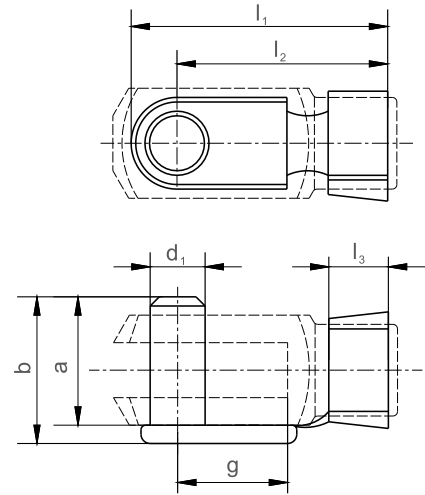
Material and surface treatments:

Ball stud and spherical washer: 20CrMo; Heat treatment and zinc plating.

Housing, threaded bushing and hex nut: low carbon steel and zinc plating.

Alternative material: stainless steel 304.

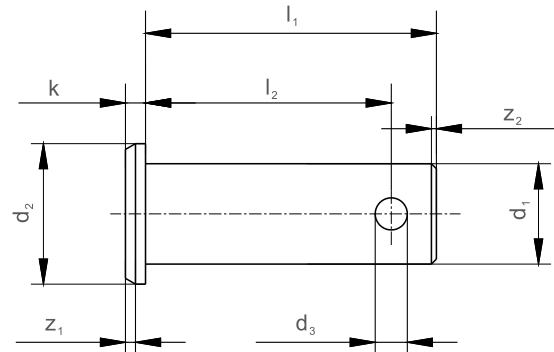
Specials on request (only volumes).



Part No.	Suitable for clevis	Dimensions (mm)							Weight (kg) Kg/100 pieces
		d ₁ h11	g	a	b	l ₁ ≈	l ₂ ≈	l ₃ ≈	
ES 4 × 8	G 4 × 8	4	8	9.5	11.0	19.0	15.0	4.5	0.145
ES 4 × 16	G 4 × 16	4	16	9.5	11.0	26.0	23.5	4.5	0.174
ES 5 × 10	G 5 × 10	5	10	12.0	13.5	23.0	19.0	5.5	0.254
ES 5 × 20	G 5 × 20	5	20	12.0	13.5	33.0	29.0	5.5	0.310
ES 6 × 12	G 6 × 12	6	12	14.0	16.0	28.0	23.0	6.5	0.458
ES 6 × 24	G 6 × 24	6	24	14.0	16.0	40.0	35.0	6.5	0.516
ES 8 × 16	G 8 × 16	8	16	19.0	21.5	37.0	30.0	8.0	1.059
ES 8 × 32	G 8 × 32	8	32	19.0	21.5	52.0	46.0	8.0	1.155
ES 10 × 20	G 10 × 20	10	20	23.0	26.0	46.0	38.0	10.0	1.938
ES 10 × 40	G 10 × 40	10	40	23.0	26.0	66.0	58.0	10.0	2.046
ES 12 × 24	G 12 × 24	12	24	28.0	31.0	53.0	45.0	12.0	3.306
ES 12 × 48	G 12 × 48	12	48	28.0	31.0	78.0	69.0	12.0	3.500
ES 14 × 28	G 14 × 28	14	28	31.0	34.0	62.0	52.0	14.0	4.722
ES 14 × 56	G 14 × 56	14	56	31.0	34.0	92.0	82.0	14.0	5.076
ES 16 × 32	G 16 × 32	16	32	36.0	39.0	73.0	62.0	16.0	6.940
ES 16 × 64	G 16 × 64	16	64	36.0	39.0	103.0	92.0	16.0	7.440
ES 20 × 40	G 20 × 40	20	40	45.0	50.0	87.5	71.5	16.0	13.00

Material and surface treatments:

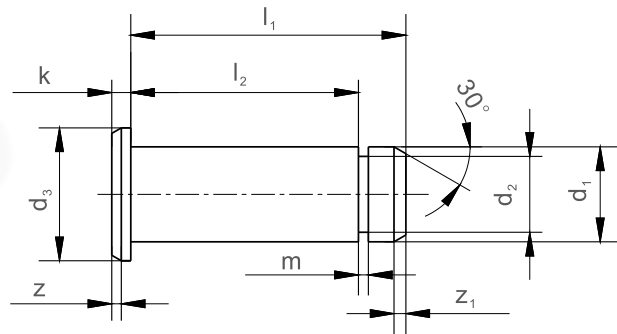
Bolt: low carbon steel. Spring: spring steel, hardness approx. 430-500HV.
Coated with rust-proof oil or zinc plating.
Specials on request (only volumes).



Part No.	Dimensions (mm)								Weight (kg) Kg/100 pieces
	d_1 h11	d_2 h14	d_3 H14	l_1 js15	l_2 +0.5	k js14	Z_1	Z_2	
GPA 4	4	6	1.0	12	10.0	1.0	0.5	0.8	0.13
GPA 5	5	8	1.0	15	12.3	1.5	0.5	0.8	0.26
GPA 6	6	9	1.6	18	15.3	1.5	0.5	1.0	0.46
GPA 8	8	12	2.0	23	19.5	2.0	1.0	1.0	1.00
GPA 10	10	14	3.2	29	24.5	2.0	1.0	1.5	1.90
GPA 12	12	17	4.0	35	29.5	3.0	1.5	1.5	3.40
GPA 14	14	19	4.0	40	32.5	3.0	1.5	1.5	5.30
GPA 16	16	20	4.0	45	38.2	3.5	1.5	1.5	7.20
GPA 18	18	25	5.0	50	43.5	3.5	1.5	1.5	10.4
GPA 20	20	28	5.0	53	47.0	4.0	2.0	1.5	13.9
GPA 25	25	34	6.3	67	59.0	5.5	3.0	1.5	26.6
GPA 28	28	34	6.3	72	63.2	5.5	3.0	2.0	36.1
GPA 30	30	36	6.3	67	59.0	5.5	3.0	2.0	38.3
GPA 30-1	30	36	6.3	77	68.2	5.5	3.0	2.0	42.8
GPA 35	35	45	8.0	87	76.5	7.0	3.0	2.0	67.7
GPA 40	40	48	8.0	100	90.0	6.0	3.0	5.0	103.5
GPA 42	42	48	8.0	100	90.0	7.0	3.0	5.0	115.1
GPA 50	50	58	10.0	115	103.0	7.0	3.0	6.0	184.6

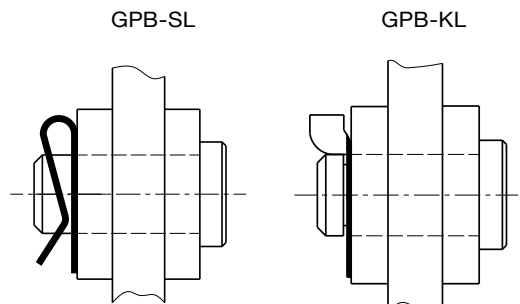
Material and surface treatments:

- 1) Low carbon steel. Coated with rust-proof oil or zinc plating.
 - 2) Alternative stainless steel 304 or stainless steel 316.
- Specials on request (only volumes).



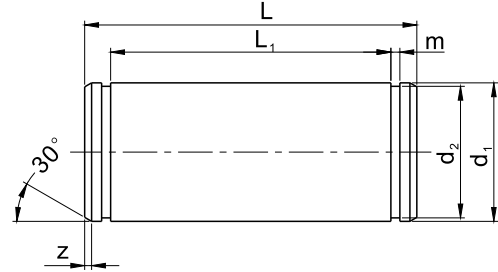
Part No.	Suitable		Dimensions (mm)										Weight (kg) Kg/100 pieces
	GPB-KL	GPB-SL	d ₁ h11	d ₃ h14	l ₁ js15	l ₂ +0.3	k js14	d ₂ -0.2	m +0.1	z	z ₁		
GPB 4	4	4	4	6	10.5	8.5	1.0	3.2	0.64	0.5	0.50	0.12	
GPB 5	5	5	5	8	13.0	10.5	1.5	4.0	0.74	0.5	0.50	0.24	
GPB 6	6	6	6	9	15.5	12.5	1.5	5.0	0.74	0.5	0.75	0.42	
GPB 8	8	8	8	12	20.0	16.5	2.0	6.0	0.94	1.0	1.00	0.90	
GPB 10	10	10	10	14	25.0	20.5	2.0	8.0	1.05	1.0	1.00	1.70	
GPB 12	12	12	12	17	30.0	24.5	3.0	9.0	1.15	1.5	1.25	2.95	
GPB 14	14	14	14	20	33.0	27.5	2.5	10.0	1.25	1.5	1.25	4.10	
GPB 16	16	16	16	20	38.5	32.5	3.5	12.0	1.35	1.5	1.50	6.20	
GPB 18	16	-	18	25	42.0	36.5	3.5	13.0	1.35	2.0	1.50	8.95	
GPB 20	24	-	20	28	46.0	40.5	4.0	17.5	1.80	2.0	1.50	12.1	
GPB 25	24	-	25	34	57.0	50.5	5.5	18.0	1.80	2.0	1.50	23.1	

Example of application:



Material and surface treatments:

- 1) Low carbon steel. Coated with rust-proof oil or zinc plating.
 - 2) Alternative stainless steel 304 or stainless steel 316.
- Specials on request (only volumes).

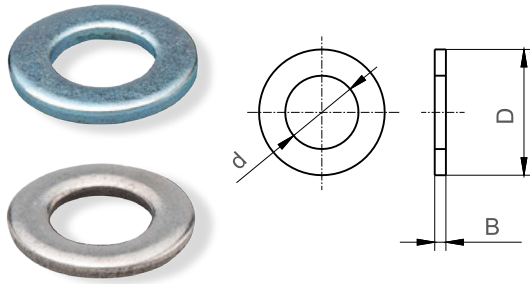


Clevises

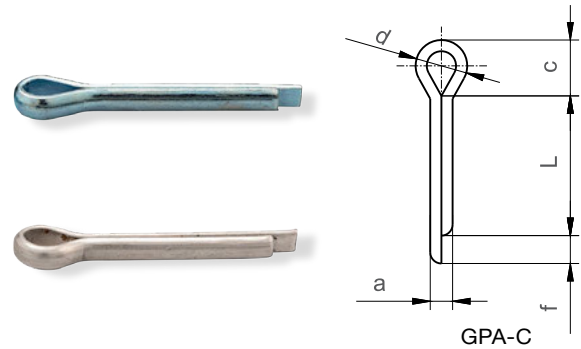
Part No.	Dimensions (mm)						Weight (kg)
	d_1 h11	L $+0,50$ 0	d_2 h11	L_1 $+0,20$ 0	z min	m h13	Kg/pieces
GPC 6	6	17.0	5.7	12.5	0.5	0.80	0.005
GPC 8	8	20.0	7.6	16.5	0.5	0.90	0.008
GPC 10	10	25.0	9.6	20.5	0.5	1.10	0.015
GPC 12	12	30.0	11.5	24.5	1.0	1.10	0.026
GPC 14	14	35.0	13.4	27.5	1.0	1.10	0.042
GPC 16	16	39.0	15.2	32.5	1.0	1.10	0.061
GPC 20	20	48.0	19.0	40.5	1.0	1.30	0.118
GPC 25	25	60.0	23.9	50.5	1.0	1.30	0.230
GPC 30	30	65.0	28.6	55.5	1.0	1.60	0.350
GPC 35	35	84.0	33.4	70.5	1.0	1.60	0.820
GPC 40	40	104.3	37.5	89.0	2.0	1.85	1.020
GPC 42	42	104.3	39.5	89.0	2.0	1.85	1.100
GPC 50	50	117.3	47.0	100.0	2.0	2.15	1.720

Material and surface treatments:

- 1) Low carbon steel. Coated with rust-proof oil or zinc plating.
 - 2) Alternative stainless steel 304 or stainless steel 316.
- Specials on request (only volumes).



GPA-R



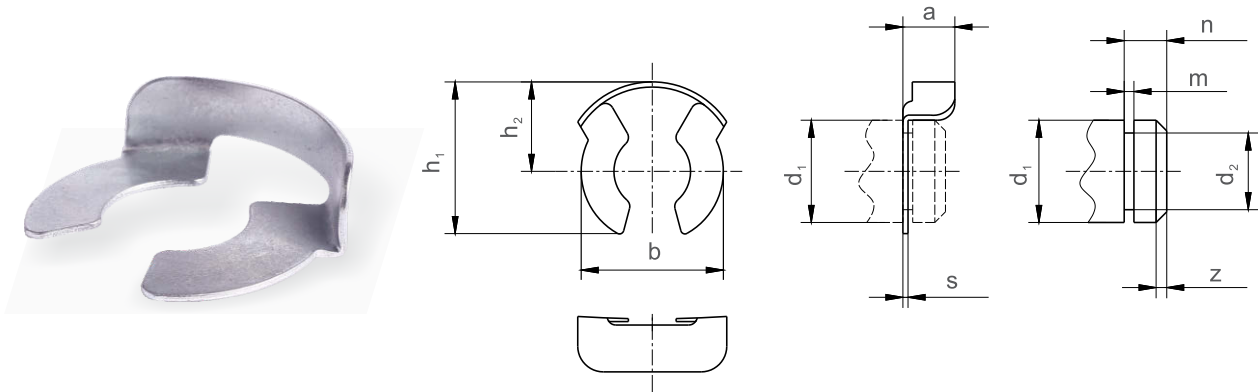
GPA-C

Part No.	Dimensions (mm)			Weight (kg) ≈Kg/1000 pcs
	d	D	B	
GPA-R4	4.3	7.5	0.8	0.15
GPA-R5	5.3	9.5	1.0	0.39
GPA-R6	6.4	11.0	1.6	0.70
GPA-R8	8.4	15.0	1.6	1.52
GPA-R10	10.5	18.0	1.6	2.11
GPA-R12	13.0	20.0	2.0	2.85
GPA-R14	15.0	24.0	2.0	4.30
GPA-R16	17.0	27.0	2.0	5.42
GPA-R20	21.0	33.0	2.5	9.98
GPA-R25	25.0	39.0	4.0	14.50

Part No.	Dimensions (mm)				
	d	a	c	f	L
GPA-C4/5	1.5	1.0	2.5	1.5	10
GPA-C6	3.6	1.6	4.0	2.5	10
GPA-C8	5.8	2.0	6.4	3.2	16
GPA-C10	7.4	3.2	8.0	4.0	20
GPA-C12/16	7.4	4.0	8.0	4.0	32
GPA-C20/25	9.2	4.0	10.0	4.0	32

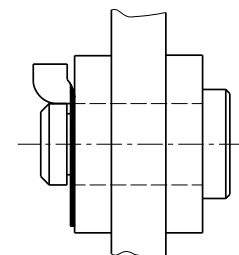
Material and surface treatments:

- 1) Low carbon steel. Coated with rust-proof oil or zinc plating.
 - 2) Alternative stainless steel 304 or stainless steel 316.
- Specials on request (only volumes).



Part No.	Nom. Size		Retainer				Max. axial thrust ca. N	Weight (kg)	Bolts				
	d_1	$\approx b$	$\approx h_1$	$\approx h_2$	a	s			d_1	d_2	m	n	z
								100 pcs	h_{11}	h_{11}	+0.1		
GPB-KL3	3	4.3	5.0	3.0	2.0	0.4	1050	0.0049	3	2.3	0.64	1.5	0.50
GPB-KL4	4	6.5	7.0	4.3	2.7	0.4	1500	0.0109	4	3.2	0.64	2.0	0.50
GPB-KL5	5	7.5	8.7	5.2	2.8	0.5	3000	0.0195	5	4.0	0.74	2.5	0.50
GPB-KL6	6	10.4	11.5	6.8	3.5	0.5	4850	0.0332	6	5.0	0.74	3.0	0.75
GPB-KL8	8	11.5	12.1	7.2	4.1	0.5	5500	0.0408	8	6.0	0.94	3.5	1.00
GPB-KL10	10	15.6	16.3	9.5	5.9	0.6	9500	0.0899	10	8.0	1.05	4.5	1.00
GPB-KL12	12	16.7	18.0	10.5	6.1	0.6	10700	0.1102	12	9.0	1.15	5.0	1.25
GPB-KL14	14	19.0	20.0	11.5	6.5	0.7	12700	0.1578	14	10.0	1.25	5.5	1.50
GPB-KL16	16	22.7	23.5	13.8	7.8	0.8	14000	0.2282	16	12.0	1.35	6.0	1.50
GPB-KL20-25	24	34.5	34.0	20.0	9.0	1.0	-	0.6171	20-25	16-18	1.80	8.0	1.50

Example of application:



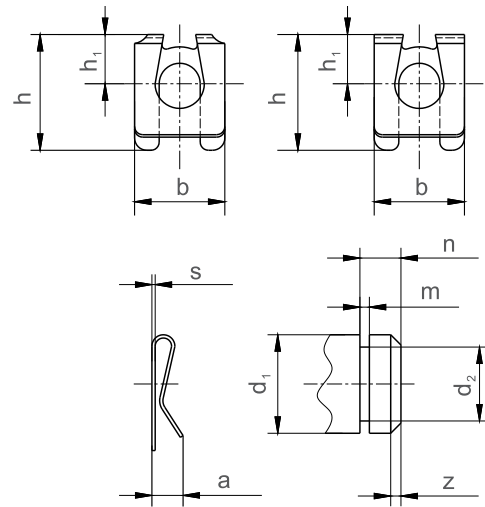
Material: Spring steel.

Surface treatment: Coated with rust-proof oil or zinc plating.
Specials on request (only volumes).

SL Retainers for Bolt GPB

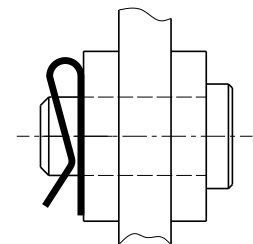


AVAILABLE ► ZINC PLATED



Part No.	Nom. Size		Retainer				Max. axial thrust ca. N	Weight (kg)	Bolts				
	d ₁	b	h	h ₁	a _≈	s			d ₁	d ₂	m	n	z
							100 pcs	h11	h11	+0.1			
GPB-SL4	4	7	8.5	4.0	2.3	0.3	1000	0.019	4	3.2	0.64	2.0	0.50
GPB-SL5	5	9	10.7	5.0	3.3	0.4	1300	0.034	5	4.0	0.74	2.5	0.50
GPB-SL6	6	11	14.1	6.0	3.8	0.4	1500	0.063	6	5.0	0.74	3.0	0.75
GPB-SL8	8	14	17.5	8.0	4.0	0.5	3600	0.109	8	6.0	0.94	3.5	1.00
GPB-SL10	10	18	22.1	10.0	5.0	0.5	6400	0.211	10	8.0	1.05	4.5	1.00
GPB-SL12	12	22	26.0	12.0	5.0	0.5	9600	0.280	12	9.0	1.15	5.0	1.25
GPB-SL14	14	25	30.0	13.5	6.0	0.6	11320	0.474	14	10.0	1.25	5.5	1.50
GPB-SL16	16	28	34.0	16.0	6.0	0.6	13500	0.563	16	12.0	1.35	6.0	1.50

Example of application:



Material: Spring steel.

Surface treatment: Coated with rust-proof oil or zinc plating.
Specials on request (only volumes).

E Circlips for bolt GPC

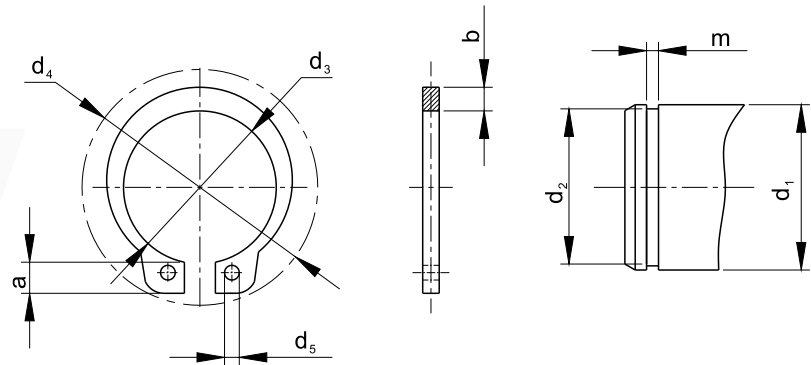


DIN471

AVAILABLE ▶

STEEL

SS 304



Part No.	Dimensions (mm)							Weight (kg) Kg/1000 pieces
	d_1 h11	s h11	d_3	d_4	d_5 min	a max	b	
GPC-E6	6	0.7	5.6	11.7	1.15	2.70	1.3	0.084
GPC-E8	8	0.8	7.4	14.7	1.20	3.20	1.5	0.158
GPC-E10	10	1.0	9.3	17.0	1.50	3.30	1.8	0.340
GPC-E12	12	1.0	11.0	19.0	1.70	3.30	1.8	0.500
GPC-E14	14	1.0	12.9	21.4	1.70	3.50	2.1	0.640
GPC-E16	16	1.0	14.7	23.8	1.70	3.70	2.2	0.700
GPC-E20	20	1.2	18.5	28.4	2.00	4.00	2.6	1.300
GPC-E25	25	1.2	23.2	34.2	2.00	4.40	3.0	1.900
GPC-E30	30	1.5	27.0	40.5	2.00	5.00	3.5	3.320
GPC-E35	35	1.5	32.2	46.8	2.50	5.60	3.9	4.000
GPC-E40	40	1.8	36.5	52.6	2.50	6.00	4.4	6.030
GPC-E42	42	1.8	38.5	55.7	2.50	6.50	4.5	6.500
GPC-E50	50	2.0	45.8	64.5	2.50	6.90	5.1	10.200

Material and surface treatments:

- 1) Spring steel; Black coating.
 - 2) Alternative stainless steel 304.
- Specials on request (only volumes).

F Retaining washers for bolt GPB

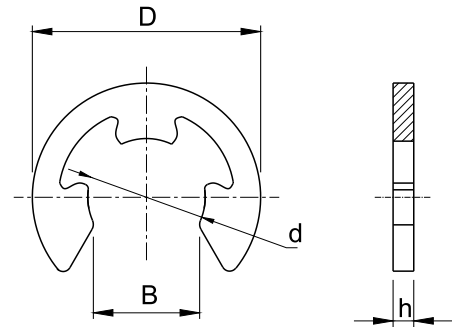


DIN6799

AVAILABLE ▶

STEEL

SS 304

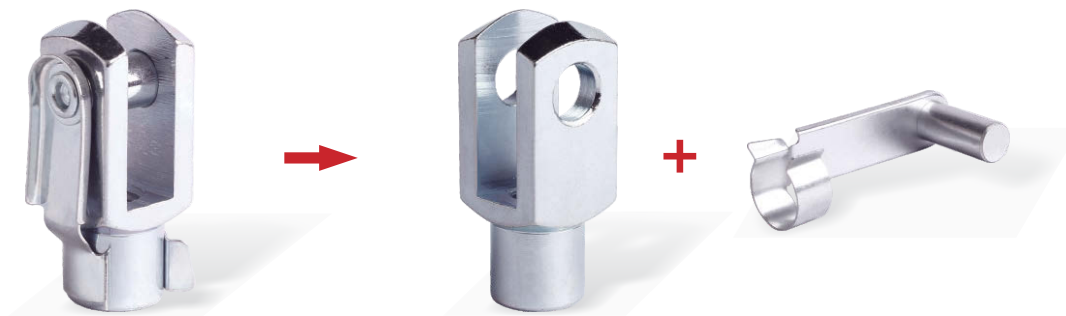


Part No.	Dimensions (mm)						Weight (kg) Kg/1000 pieces
	d	h		B		D	
		max	min	max	min	max	
GPB-F4	4	0.72	0.68	3.388	3.292	9.3	0.158
GPB-F5	5	0.72	0.68	4.158	4.062	11.3	0.236
GPB-F6	6	0.72	0.68	5.308	5.212	12.3	0.255
GPB-F7	7	0.92	0.88	5.888	5.792	14.3	0.474
GPB-F8	8	1.03	0.97	6.578	6.462	16.3	0.660
GPB-F9	9	1.13	1.07	7.688	7.572	18.8	1.090
GPB-F10	10	1.23	1.17	8.378	8.262	20.4	1.250
GPB-F12	12	1.33	1.27	10.52	10.38	23.4	1.630
GPB-F15	15	1.53	1.47	12.68	12.54	29.4	3.370
GPB-F19	19	1.78	1.72	15.99	15.85	37.6	6.420
GPB-F24	24	2.03	1.97	21.964	21.796	44.6	8.550
GPB-F30	30	2.53	2.47	25.884	25.716	52.6	13.500

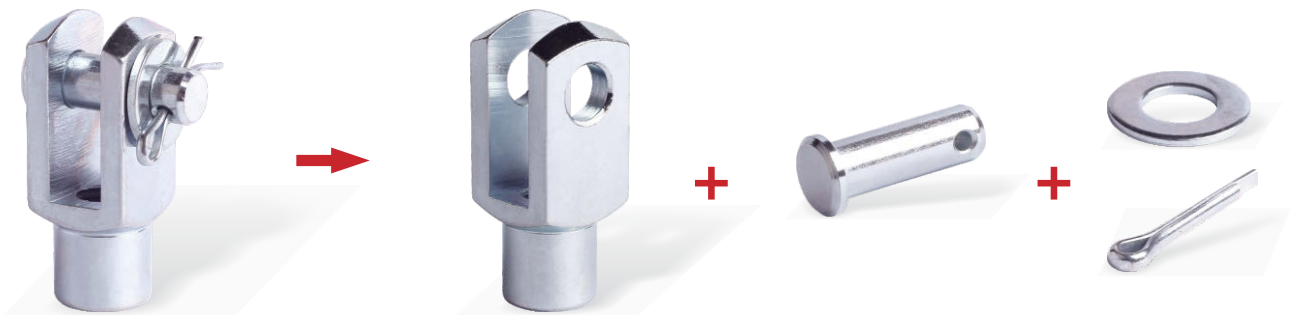
Material and surface treatments:

- 1) Spring steel; Black coating.
 - 2) Alternative stainless steel 304.
- Specials on request (only volumes).

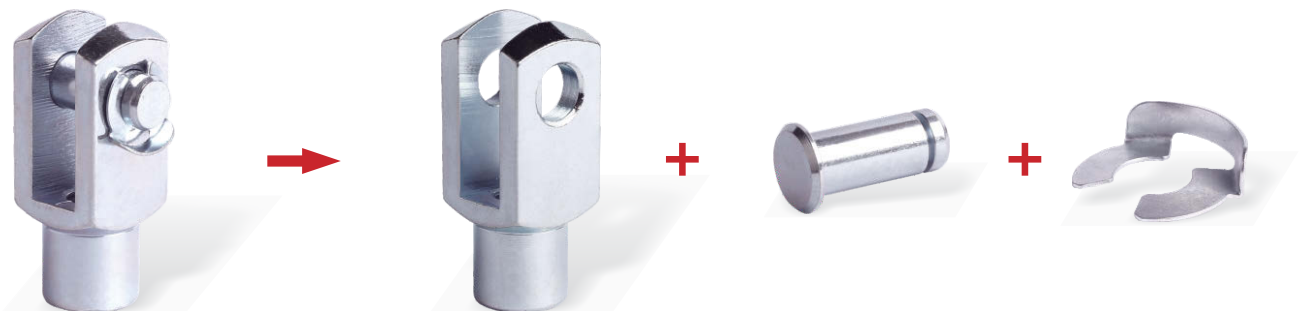
1. Part No.: G model - ASSY/01
For example: G6 × 12-ASSY/01



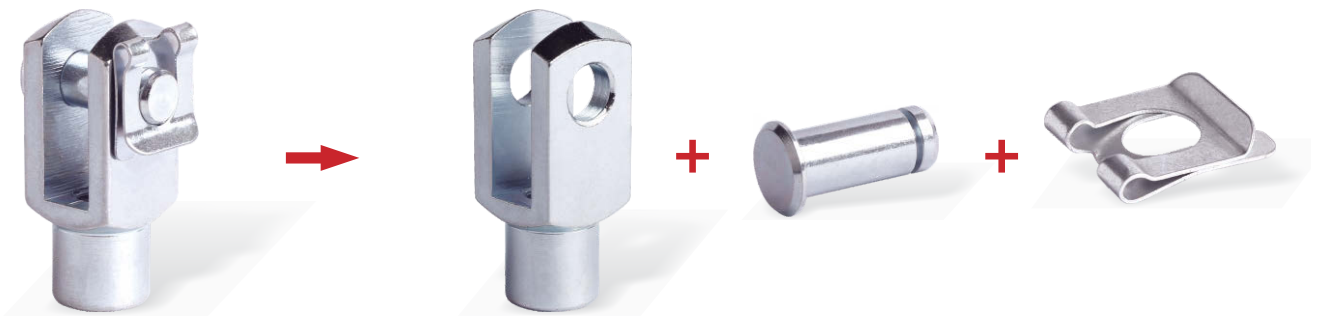
2. Part No.: G model/ GT model - ASSY/02
For example: G6 × 12-ASSY/02, GT6 × 12-ASSY/02
Material: Low carbon steel / stainless steel are optional



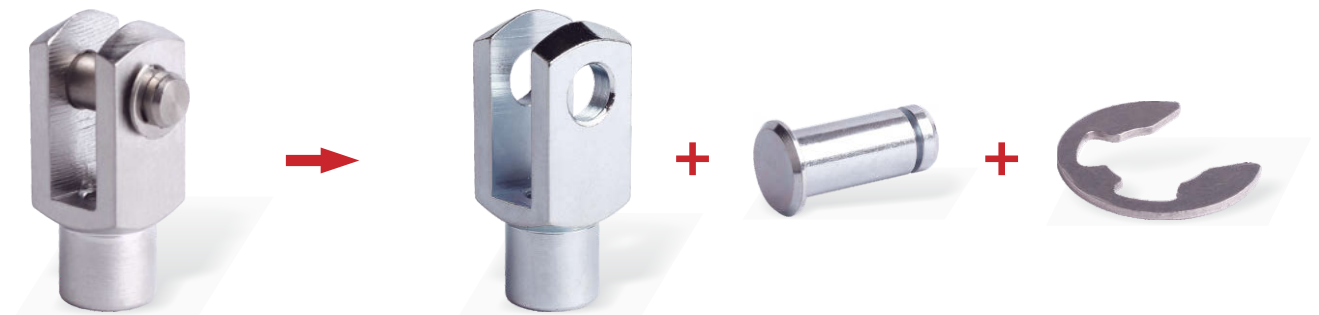
3. Part No.: G model/ GT model - ASSY/03
For example: G6 × 12-ASSY/03, GT6 × 12-ASSY/03



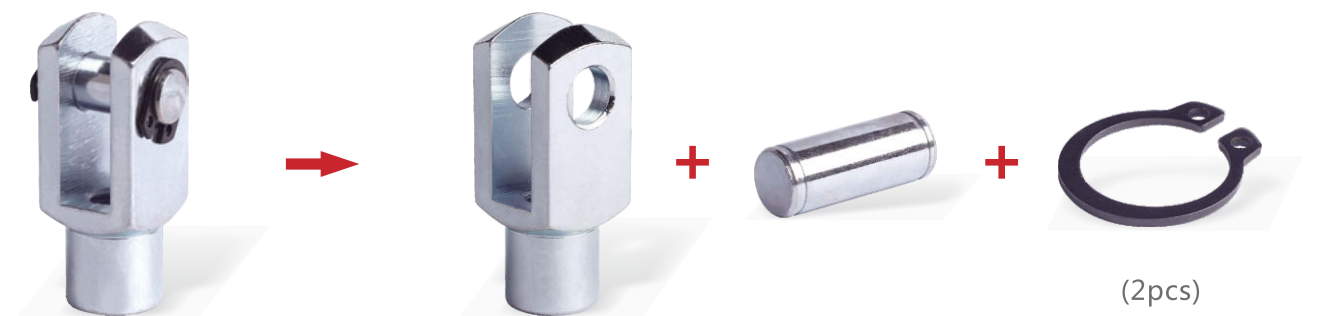
4. Part No.: G model/ GT model - ASSY/04
For example: G6 × 12-ASSY/04, GT6 × 12-ASSY/04



5. Part No.: G model/ GT model - ASSY/05
For example: G6 × 12-ASSY/05, GT6 × 12-ASSY/05
Material: Low carbon steel / stainless steel are optional



6. Part No.: G model/ GT model - ASSY/06
For example: G6 × 12-ASSY/06, GT6 × 12-ASSY/06
Material: Low carbon steel / stainless steel are optional



Rod Ends

Rod Ends SI Maintenance-free	24
Rod Ends SA Maintenance-free	25
Rod Ends PHS Maintenance required	26
Rod Ends POS Maintenance required	27
Rod Ends SI-E(S), SI-ES 2RS Maintenance required	28
Rod Ends SA-E(S), SA-ES 2RS Maintenance required	29
Rod Ends GIR..UK, GIR..UK 2RS Maintenance- free	30
Rod Ends GAR..UK, GAR..UK 2RS Maintenance-free	31
Rod Ends SI-N High loaded injection	32
Rod Ends SA-N High loaded injection	33



Rod Ends - SI

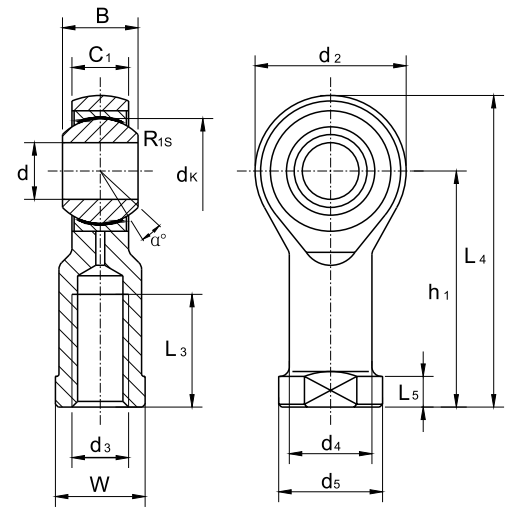


MAINTENANCE-FREE

AVAILABLE ► ZINC PLATED

SS 304

SS 316



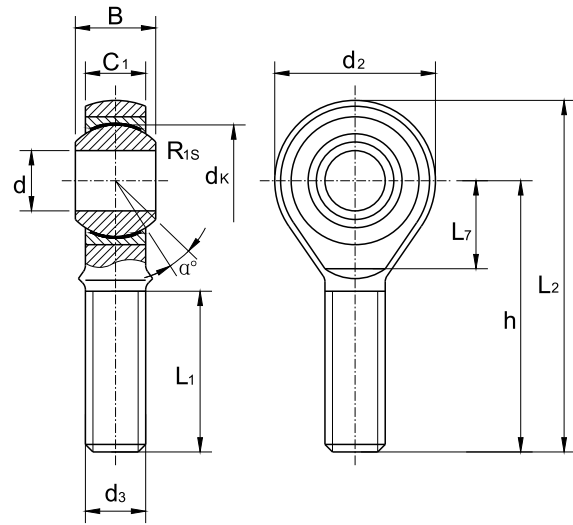
Part No.	Dimensions (mm)														Load ratings (KN)		Weight (kg)
	d	d ₃ 6H	B	C ₁	W	h ₁	d ₂	L ₄	L ₅	d ₄	d ₅	d _k	L ₃ -2	α ≈	C	C ₀	
SI 5	5	M5 × 0.8	8	6	9	27	18	36	4	8.5	11	11.11	10	13	5.70	6.00	0.016
SI 6	6	M6 × 1.0	9	6.75	11	30	20	40	5	10	13	12.70	12	13	7.20	7.65	0.022
SI 8	8	M8 × 1.25	12	9	14	36	24	48	5	12.5	16	15.875	16	14	11.6	12.9	0.047
SI 10	10	M10 × 1.5	14	10.5	17	43	28	57	6.5	15	19	19.05	20	13	14.5	18.0	0.077
SI 10 MF	10	M10 × 1.25	14	10.5	17	43	28	57	6.5	15	19	19.05	20	13	14.5	18.0	0.077
SI 12	12	M12 × 1.75	16	12	19	50	32	66	6.5	17.5	22	22.225	22	13	17.0	24.0	0.100
SI 12 MF	12	M12 × 1.25	16	12	19	50	32	66	6.5	17.5	22	22.225	22	13	17.0	24.0	0.100
SI 14	14	M14 × 2.0	19	13.5	22	57	36	75	8	20	25	25.40	25	16	24.0	31.0	0.160
SI 14 MF	14	M14 × 1.5	19	13.5	22	57	36	75	8	20	25	25.40	25	16	24.0	31.0	0.160
SI 16	16	M16 × 2.0	21	15	22	64	42	85	8	22	27	28.575	28	15	28.5	39.0	0.220
SI 16 MF	16	M16 × 1.5	21	15	22	64	42	85	8	22	27	28.575	28	15	28.5	39.0	0.220
SI 18	18	M18 × 2.5	23	16.5	27	71	44	93	10	25	31	31.75	32	15	42.5	47.5	0.320
SI 18 MF	18	M18 × 1.5	23	16.5	27	71	44	93	10	25	31	31.75	32	15	42.5	47.5	0.320
SI 20	20	M20 × 2.5	25	18	30	77	50	102	10	27.5	34	34.925	33	14	42.5	57.0	0.420
SI 20 MF	20	M20 × 1.5	25	18	30	77	50	102	10	27.5	34	34.925	33	14	42.5	57.0	0.420
SI 22 MF	22	M22 × 1.5	28	20	32	84	54	111	12	30	38	38.10	37	15	57.0	68.0	0.540
SI 25 MF	25	M24 × 2.0	31	22	36	94	60	124	12	33.5	42	42.85	42	15	68.0	85.0	0.720
SI 28 MF	28	M27 × 2.0	35	24	41	103	66	136	14	37	46	47.60	51	15	86.0	107.0	0.820
SI 30 MF	30	M30 × 2.0	37	25	41	110	70	145	15	40	50	50.80	51	17	88.0	114.0	1.100
SI 35 MF	35	M36 × 2.0	43	28	50	125	81	165.5	17	46	58	57.10	58	16			1.600
SI 40 MF	40	M42 × 2.0	49	33	55	142	91	187.5	19	53	65	66.60	62	17			2.400
SI 50 MF	50	M48 × 2.0	60	45	65	160	117	218.5	23	65	75	82.50	67	12			5.000

Material and surface treatments:

- Body: medium carbon steel zinc plating; Steel ball: bearing steel without chromium plating; Inner ring: brass H62, with PTFE.
 - Body: stainless steel 304 or stainless steel 316 is optional.
- Specials on request (only volumes).

- For left-hand thread, please add suffix "L", e.g. SIL 8.
- For fine-pitch thread, please add suffix "MF", e.g. SI8MF.
- General with forging part, also turn part is optional.

Rod Ends



Part No.	Dimensions (mm)												Load ratings (KN)		Weight (kg)
	d	d3 6g	B	C ₁	L ₁ min	d ₂	L ₇	h	L ₂	d _k	R _{1s}	α ≈	C	C ₀	Kg≈
SA 5	5	M5 × 0.8	8	6	19	18		33	42	11.11	0.3	13	5.70	6.00	0.013
SA 6	6	M6 × 1.0	9	6.75	21	20		36	46	12.70	0.3	13	7.20	7.65	0.020
SA 8	8	M8 × 1.25	12	9	25	24		42	54	15.875	0.3	14	11.6	12.9	0.038
SA 10	10	M10 × 1.5	14	10.5	28	28		48	62	19.05	0.3	13	14.5	18.0	0.055
SA 12	12	M12 × 1.75	16	12	32	32		54	70	22.225	0.3	13	17.0	24.0	0.085
SA 14	14	M14 × 2.0	19	13.5	36	36	18	60	78	25.40	0.3	16	24.0	31.0	0.14
SA 16	16	M16 × 2.0	21	15	37	42	21	66	87	28.575	0.3	15	28.5	39.0	0.21
SA 18	18	M18 × 2.5	23	16.5	41	44	22	72	94	31.75	0.3	15	42.5	47.5	0.28
SA 18 MF	18	M18 × 1.5	23	16.5	41	44	22	72	94	31.75	0.3	15	42.5	47.5	0.28
SA 20	20	M20 × 2.5	25	18	45	50	25	78	103	34.925	0.3	14	42.5	57.0	0.38
SA 20 MF	20	M20 × 1.5	25	18	45	50	25	78	103	34.925	0.3	14	42.5	57.0	0.38
SA 22 MF	22	M22 × 1.5	28	20	48	54	27	84	111	38.10	0.3	15	57.0	68.0	0.48
SA 25 MF	25	M24 × 2.0	31	22	55	60	30	94	124	42.85	0.3	15	68.0	85.0	0.64
SA 28 MF	28	M27 × 2.0	35	24	62	66	33	103	136	47.60	0.3	15	86.0	107.0	0.80
SA 30 MF	30	M30 × 2.0	37	25	66	70	35	110	145	50.80	0.3	17	88.0	114.0	1.10
SA 35 MF	35	M36 × 2.0	43	28	85	81	41	140	180.5	57.10	0.3	16	•	•	1.64
SA 40 MF	40	M42 × 2.0	49	33	90	91	46	150	195.5	66.60	0.3	17	•	•	2.30
SA 50 MF	50	M48 × 2.0	60	45	105	117	59	185	243.5	82.50	0.3	12	•	•	4.80

Material and surface treatments:

- Body: medium carbon steel zinc plating; Steel ball: bearing steel without chromium plating; Inner ring: brass H62; with PTFE.
 - Body: stainless steel 304 or stainless steel 316 is optional.
- Specials on request (only volumes).

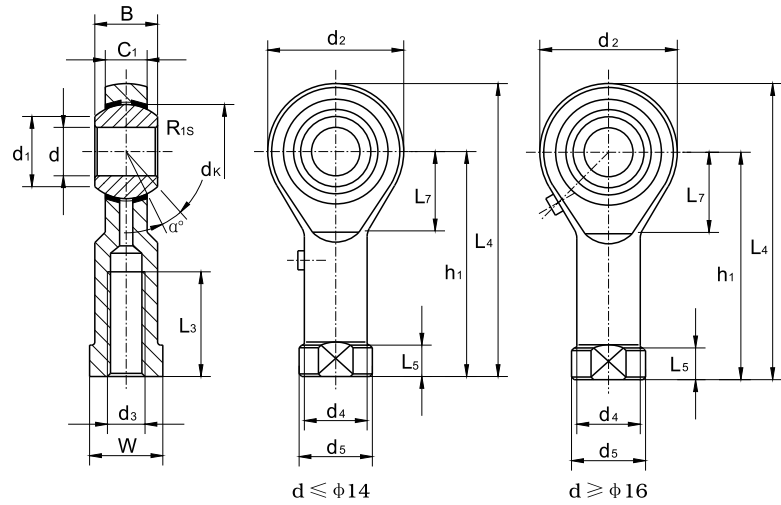
- For left-hand thread, please add suffix "L", e.g. SAL 8.
- For fine-pitch thread, please add suffix "MF", e.g. SA 8 MF.
- General with forging part, also turn part is optional.

Rod Ends - PHS



MAINTENANCE REQUIRED

AVAILABLE ► ZINC PLATED



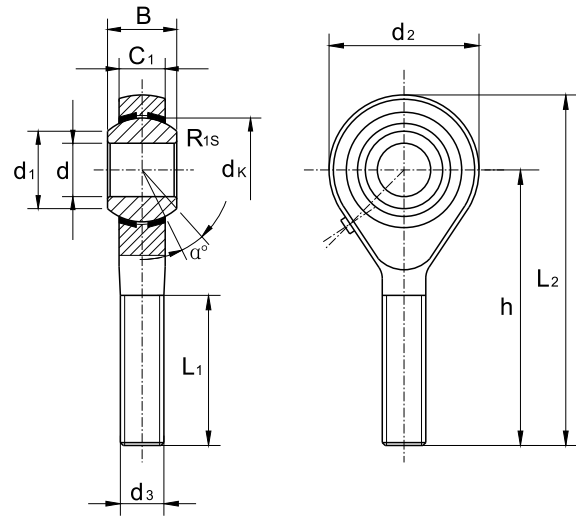
Part No.	Dimensions (mm)															Load ratings (KN)		Weight (kg)
	d	d ₃ 6H	B	C ₁	W	L ₃ min	d ₂	L ₄	h ₁	L ₅	d ₄	d ₅	d _k	d ₁	α	dyn. C	stat. C ₀	
PHS 5	5	M5 × 0.8	8	6	9	10	16	35	27	4	8.5	11	11.11	7.70	13	3.25	5.70	0.016
PHS 6	6	M6 × 1.0	9	6.75	11	12	18	39	30	5	10.0	13	12.70	8.96	13	4.30	7.20	0.022
PHS 8	8	M8 × 1.25	12	9	14	16	22	47	36	5	12.5	16	15.875	10.4	14	7.20	11.6	0.047
PHS 10	10	M10 × 1.5	14	10.5	17	20	26	56	43	6.5	15.0	19	19.05	12.9	13	10.0	14.5	0.077
PHS 10 MF	10	M10 × 1.25	14	10.5	17	20	26	56	43	6.5	15.0	19	19.05	12.9	13	10.0	14.5	0.077
PHS 12	12	M12 × 1.75	16	12	19	22	30	65	50	6.5	17.5	22	22.225	15.4	13	13.4	17.0	0.10
PHS 12 MF	12	M12 × 1.25	16	12	19	22	30	65	50	6.5	17.5	22	22.225	15.4	13	13.4	17.0	0.10
PHS 14	14	M14 × 2.0	19	13.5	22	25	34	74	57	8	20.0	25	25.40	16.9	16	17.0	24.0	0.16
PHS 14 MF	14	M14 × 1.5	19	13.5	22	25	34	74	57	8	20.0	25	25.40	16.9	16	17.0	24.0	0.16
PHS 16	16	M16 × 2.0	21	15	24	28	40	84	64	8	22.0	27	28.575	19.4	15	21.6	28.5	0.22
PHS 16 MF	16	M16 × 1.5	21	15	24	28	40	84	64	8	22.0	27	28.575	19.4	15	21.6	28.5	0.22
PHS 18	18	M18 × 2.5	23	16.5	27	32	44	93	71	10	25.0	31	31.75	21.9	15	26.0	42.5	0.32
PHS 18 MF	18	M18 × 1.5	23	16.5	27	32	44	93	71	10	25.0	31	31.75	21.9	15	26.0	42.5	0.32
PHS 20	20	M20 × 2.5	25	18	30	33	50	102	77	10	27.5	34	34.925	24.4	14	31.5	42.5	0.42
PHS 20 MF	20	M20 × 1.5	25	18	30	33	50	102	77	10	27.5	34	34.925	24.4	14	31.5	42.5	0.42
PHS 22 MF	22	M22 × 1.5	28	20	32	37	54	111	84	12	30.0	38	38.10	25.8	15	38.0	57.0	0.54
PHS 25 MF	25	M24 × 2.0	31	22	36	42	60	124	94	12	33.5	42	42.85	29.6	15	47.5	68.0	0.73
PHS 28 MF	28	M27 × 2.0	35	24	41	48	66	136	103	14	37.0	46	47.60	32.3	15	58.0	75.0	0.98
PHS 30 MF	30	M30 × 2.0	37	25	41	51	70	145	110	15	40.0	50	50.80	34.8	17	64.0	88.0	1.10

Material and surface treatments:

- Body: medium carbon steel zinc plating; Steel ball: bearing steel without chromium plating; Inner ring: brass H62.
- Outer race is lined with brass liner.

- Rod body with a lubricating hole or grease nipple.
- For left-hand thread, please add suffix "L", e.g. PHSL 8.
- For fine-pitch thread, please add suffix "MF", e.g. PHS 8MF.
- General with forging part, also turn part is optional.

Rod Ends



Part No.	Dimensions (mm)												Load ratings (KN)		Weight (kg)
	d	d3 eg	B	C ₁	L ₁ min	d ₂	h	L ₂	d _k	R _{1s}	d ₁	α ≈	dyn. C	stat. C ₀	
POS 5	5	M5 × 0.8	8	6	20	16	33	41	11.11	0.3	7.70	13	3.25	5.70	0.013
POS 6	6	M6 × 1.0	9	6.75	22	18	36	45	12.70	0.3	8.96	13	4.30	7.20	0.020
POS 8	8	M8 × 1.25	12	9	25	22	42	53	15.875	0.3	10.4	14	7.20	11.6	0.030
POS 10	10	M10 × 1.5	14	10.5	29	26	48	61	19.05	0.3	12.9	13	10.0	14.5	0.055
POS 12	12	M12 × 1.75	16	12	33	30	54	69	22.225	0.3	15.4	13	13.4	17.0	0.085
POS 14	14	M14 × 2.0	19	13.5	36	34	60	77	25.40	0.3	16.9	16	17.0	24.0	0.14
POS 16	16	M16 × 2.0	21	15	40	40	66	86	28.575	0.3	19.4	15	21.6	28.5	0.21
POS 18	18	M18 × 2.5	23	16.5	44	44	72	94	31.75	0.3	21.9	15	26.0	42.5	0.28
POS 18 MF	18	M18 × 1.5	23	16.5	44	44	72	94	31.75	0.3	21.9	15	26.0	42.5	0.28
POS 20	20	M20 × 2.5	25	18	47	50	78	103	34.925	0.3	24.4	14	31.5	52.5	0.38
POS 20 MF	20	M20 × 1.5	25	18	47	50	78	103	34.925	0.3	24.4	14	31.5	52.5	0.38
POS 22 MF	22	M22 × 1.5	28	20	51	54	84	111	38.10	0.3	25.8	15	38.0	57.0	0.48
POS 25 MF	25	M24 × 2.0	31	22	57	60	94	124	42.85	0.3	29.6	15	47.5	68.0	0.64
POS 28 MF	28	M27 × 2.0	35	24	62	66	103	136	47.60	0.3	32.3	15	58.0	75.5	0.96
POS 30 MF	30	M30 × 2.0	37	25	66	70	110	145	50.80	0.3	34.8	17	64.0	88.0	1.10

Material and surface treatments:

- Body: medium carbon steel zinc plating; Steel ball: bearing steel without chromium plating; Inner ring: brass H62.
- Outer race is lined with brass liner.

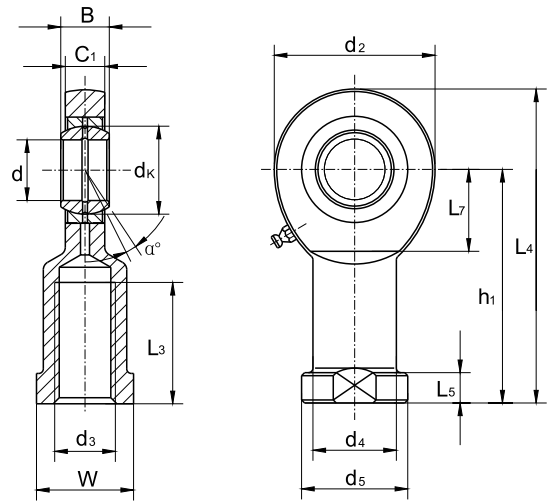
- Rod body with a lubricating hole or grease nipple.
- For left-hand thread, please add suffix "L", e.g. POSL 8.
- For fine-pitch thread, please add suffix "MF", e.g. POS 8MF.
- General with forging part, also turn part is optional.

Rod Ends - SI-E(S), SI-ES 2RS



MAINTENANCE REQUIRED

AVAILABLE ► ZINC PLATED



Part No.	Dimensions (mm)													Load ratings (KN)		Weight (kg)	
	d	d3 6H	B	C ₁	L ₃ min	W	d ₂	h ₁	L ₄	L ₅	d ₄	d ₅	d _k	α	dyn. C		stat. C ₀
SI 6 E*	6	M6 × 1.0	6	4.4	11	11	21	30	40.5	5	10	13	10	13	3.40	8.15	0.021
SI 8 E*	8	M8 × 1.25	8	6.0	15	14	24	36	48	5	12.5	16	13	15	5.50	12.9	0.039
SI 10 E*	10	M10 × 1.5	9	7.0	20	17	29	43	57.5	6.5	15	19	16	12	8.15	17.6	0.061
SI 12 E*	12	M12 × 1.75	10	8.0	23	19	34	50	67	6.5	17.5	22	18	11	10.8	24.5	0.096
SI 15 ES	15	M14 × 2.0	12	10	30	22	40	61	81	8	21	26	22	8	17.0	36.0	0.180
SI 17 ES	17	M16 × 2.0	14	11	34	27	46	67	90	10	24	30	25	10	21.2	45.0	0.220
SI 20 ES	20	M20 × 1.5	16	13	40	32	53	77	103.5	10	27.5	35	29	9	30.0	60.0	0.350
SI 25 ES	25	M24 × 2.0	20	17	48	36	64	94	126	12	33.5	42	35.5	7	48.0	83.0	0.640
SI 30 ES	30	M30 × 2.0	22	19	56	41	73	110	146.5	15	40	50	40.7	6	62.0	110	0.930
SI 35 ES	35	M36 × 3.0	25	21	60	50	82	125	166	15	47	58	47	6	80.0	146	1.30
SI 40 ES	40	M39 × 3.0	28	23	65	55	92	142	188	18	52	65	53	7	100	180	2.00
SI 45 ES	45	M42 × 3.0	32	27	65	60	102	145	196	20	58	70	60	7	127	240	2.50
SI 50 ES	50	M45 × 3.0	35	30	68	65	112	160	216	20	62	75	66	6	156	290	3.50
SI 60 ES	60	M52 × 3.0	44	38	70	75	135	175	242.5	20	70	88	80	6	245	450	5.50
SI 70 ES	70	M56 × 4.0	49	42	80	85	160	200	280	20	80	98	92	6	315	610	8.60
SI 80 ES	80	M64 × 4.0	55	47	85	100	180	230	320	25	95	110	105	6	400	750	12.0

Rod Ends

- It is made up of a radial spherical plain bearing GE..E(S) or GE..ES 2RS and rod body.
 - Rod body of SI..ES with a lubricating hole or a grease nipple.
 - For bearings d >=15, SI..ES 2RS also available , e.g. SI 20 ES 2RS.
 - Lubricating hole or grease nipple isn't available for the sizes marked "*".
 - For left-hand thread, please add suffix "L", e.g. SIL 20ES.
 - All with forging part.
- Specials on request (only volumes).

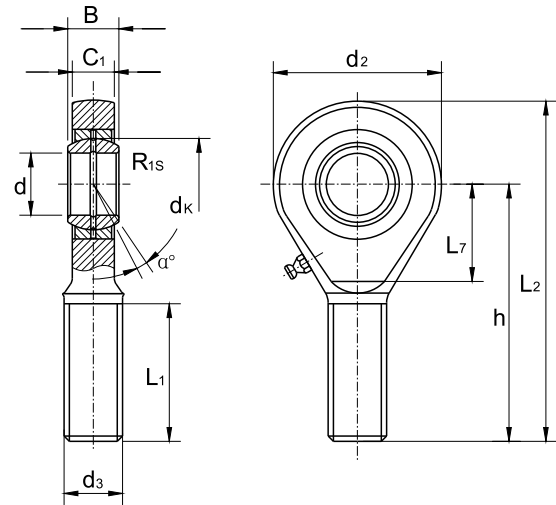
- Body: medium carbon steel zinc plating; Inner ring and steel ball: both bearing steel.

Rod Ends - SA-E(S), SA-ES 2RS



MAINTENANCE REQUIRED

AVAILABLE ► ZINC PLATED



Part No.	Dimensions (mm)											Load ratings (KN)		Weight (kg)	
	d	d3 eg	B	C ₁	L ₁ min	d ₂	L ₇ min	h	L ₂	d _k	R _{1s}	α ≈	dyn. C		stat. C ₀
SA 6 E*	6	M6 × 1.0	6	4.4	18	21	11	36	46.5	10	0.3	13	3.40	8.15	0.017
SA 8 E*	8	M8 × 1.25	8	6	22	24	14	42	54	13	0.3	15	5.50	12.9	0.029
SA 10 E*	10	M10 × 1.5	9	7	26	29	15	48	62.5	16	0.3	12	8.15	17.6	0.051
SA 12 E*	12	M12 × 1.75	10	8	28	34	17	54	71	18	0.3	11	10.8	24.5	0.086
SA 15 ES	15	M14 × 2.0	12	10	34	40	20	63	83	22	0.3	8	17.0	36.0	0.140
SA 17 ES	17	M16 × 2.0	14	11	36	46	23	69	92	25	0.3	10	21.2	45.0	0.190
SA 20 ES	20	M20 × 1.5	16	13	43	53	27	78	104.5	29	0.6	9	30.0	60.0	0.310
SA 25 ES	25	M24 × 2.0	20	17	53	64	32	94	126	35.5	0.6	7	48.0	83.0	0.560
SA 30 ES	30	M30 × 2.0	22	19	65	73	37	110	146.5	40.7	0.6	6	62.0	110	0.890
SA 35 ES	35	M36 × 3.0	25	21	82	82	41	140	181	47	0.6	6	80.0	146	1.40
SA 40 ES	40	M39 × 3.0	28	23	86	92	46	150	196	53	0.6	7	100	180	1.80
SA 45 ES	45	M42 × 3.0	32	27	94	102	51	163	214	60	0.6	7	127	240	2.60
SA 50 ES	50	M45 × 3.0	35	30	107	112	56	185	241	66	0.6	6	156	290	3.40
SA 60 ES	60	M52 × 3.0	44	38	115	135	68	210	277.5	80	1.0	6	245	450	5.90
SA 70 ES	70	M56 × 4.0	49	42	125	160	80	235	315	92	1.0	6	315	610	8.20
SA 80 ES	80	M64 × 4.0	55	47	140	180	90	270	360	105	1.0	6	400	750	12.0

- It is made up of a radial spherical plain bearing GE..E(S) or GE..ES 2RS and rod body.
 - Rod body of 51..ES with a lubricating hole or a grease nipple.
 - For bearings d ≥ 15, SI..ES 2RS also available, e.g. SA 20 ES 2RS.
 - Lubricating hole or grease nipple isn't available for the sizes marked ***.
 - For left-hand thread, please add suffix "L", e.g. SAL 20ES.
 - All with forging part.
- Specials on request (only volumes).

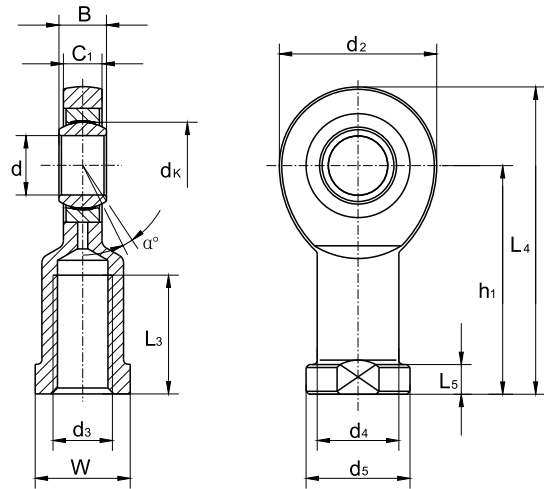
- Body: medium carbon steel zinc plating; Inner ring and steel ball: both bearing steel.

Rod Ends - GIR..UK, GIR..UK 2RS



MAINTENANCE-FREE

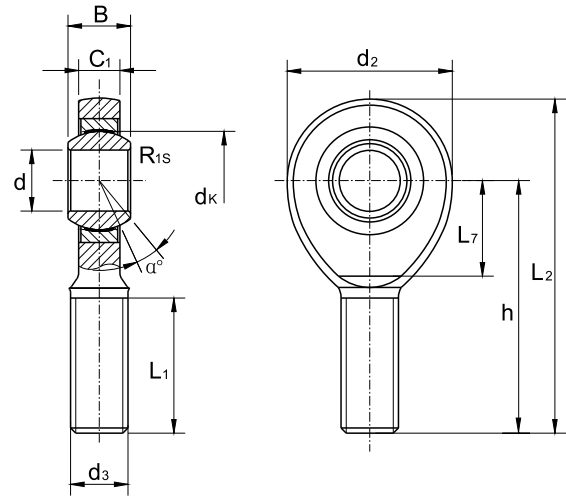
AVAILABLE ► ZINC PLATED



Part No.	Dimensions (mm)														Load ratings (KN)		Weight (kg)
	d	d ₃ 6H	B	C ₁	d ₂	L ₃ min	W	d ₄	d ₅	L ₅	h ₁	L ₄	d _k	α	dyn. C	stat. C ₀	
GIR 6 UK	6	M6 × 1.0	6	4.4	21	11	11	10	13	5	30	40.5	10	13	3.60	8.15	0.021
GIR 8 UK	8	M8 × 1.25	8	6	24	15	14	12.5	16	5	36	48	13	15	5.85	12.9	0.039
GIR 10 UK	10	M10 × 1.5	9	7	29	20	17	15	19	6.5	43	57.5	16	12	8.65	17.6	0.061
GIR 12 UK	12	M12 × 1.75	10	8	34	23	19	17.5	22	6.5	50	67	18	11	11.4	24.5	0.096
GIR 15 UK	15	M14 × 2.0	12	10	40	30	22	21	26	8	61	81	22	8	17.6	36.0	0.18
GIR 17 UK (2RS)	17	M16 × 2.0	14	11	46	34	27	24	30	10	67	90	25	10	22.4	45.0	0.22
GIR 20 UK (2RS)	20	M20 × 1.5	16	13	53	40	32	27.5	35	10	77	103.5	29	9	31.5	60.0	0.35
GIR 25 UK (2RS)	25	M24 × 2.0	20	17	64	48	36	33.5	42	12	94	126	35.5	7	51.0	83.0	0.64
GIR 30 UK (2RS)	30	M30 × 2.0	22	19	73	56	41	40	50	15	110	146.5	40.7	6	66.5	110	0.93
GIR 35 UK 2RS	35	M36 × 3.0	25	21	82	60	50	47	58	15	125	166	47	6	112	146	1.30
GIR 40 UK 2RS	40	M39 × 3.0	28	23	92	65	55	52	65	18	142	188	53	7	140	180	2.00
GIR 45 UK 2RS	45	M42 × 3.0	32	27	102	65	60	58	70	20	145	196	60	7	180	240	2.50
GIR 50 UK 2RS	50	M45 × 3.0	35	30	112	68	65	62	75	20	160	216	66	6	220	290	3.50
GIR 60 UK 2RS	60	M52 × 3.0	44	38	135	70	75	70	88	20	175	242.5	80	6	345	450	5.50
GIR 70 UK 2RS	70	M56 × 4.0	49	42	160	80	85	80	98	20	200	280	92	6	440	610	8.60
GIR 80 UK 2RS	80	M64 × 4.0	55	47	180	85	100	95	110	25	230	320	105	6	570	750	12.0

- It is made up of a maintenance-free radial spherical plain bearing GE..UK or GE..UK 2RS and rod body.
 - For bearings $d \geq 17$, GIR..UK 2RS also available, e.g. GIR 20 UK 2RS.
 - For left-hand thread, please add suffix "L", e.g. GIRL 20UK.
 - All with forging part.
- Specials on request (only volumes).

- Body: medium carbon steel zinc plating; Inner ring: low carbon steel
- Steel ball: bearing steel.



Part No.	Dimensions (mm)												Load ratings (KN)		Weight (kg)
	d	d3 6g	B	C ₁	d ₂	L ₂	h	L ₇	L ₁ min	d _k	R _{1s}	α	dyn. C	stat. C ₀	
GAR 6 UK	6	M6 × 1.0	6	4.4	21	46.5	36	12	18	10	0.3	13	3.60	8.15	0.017
GAR 8 UK	8	M8 × 1.25	8	6	24	54	42	14	22	13	0.3	15	5.85	12.9	0.029
GAR 10 UK	10	M10 × 1.5	9	7	29	62.5	48	15	26	16	0.3	12	8.65	17.6	0.051
GAR 12 UK	12	M12 × 1.75	10	8	34	71	54	18	28	18	0.3	11	11.4	24.5	0.086
GAR 15 UK	15	M14 × 2.0	12	10	40	83	63	20	34	22	0.3	8	17.6	36.0	0.14
GAR 17 UK (2RS)	17	M16 × 2.0	14	11	46	92	69	23	36	25	0.3	10	22.4	45.0	0.19
GAR 20 UK (2RS)	20	M20 × 1.5	16	13	53	104.5	78	27	43	29	0.6	9	31.5	60.0	0.31
GAR 25 UK (2RS)	25	M24 × 2.0	20	17	64	126	94	32	53	35.5	0.6	7	51.0	83.0	0.56
GAR 30 UK (2RS)	30	M30 × 2.0	22	19	73	146.5	110	37	65	40.7	0.6	6	66.5	110	0.89
GAR 35 UK 2RS	35	M36 × 3.0	25	21	82	181	140	42	82	47	0.6	6	112	146	1.40
GAR 40 UK 2RS	40	M39 × 3.0	28	23	92	196	150	48	86	53	0.6	7	140	180	1.80
GAR 45 UK 2RS	45	M42 × 3.0	32	27	102	214	163	52	94	60	0.6	7	180	240	2.60
GAR 50 UK 2RS	50	M45 × 3.0	35	30	112	241	185	60	107	66	0.6	6	220	290	3.40
GAR 60 UK 2RS	60	M52 × 3.0	44	38	135	277.5	210	75	115	80	1.0	6	345	450	5.90
GAR 70 UK 2RS	70	M56 × 4.0	49	42	160	315	235	87	125	92	1.0	6	440	610	8.20
GAR 80 UK 2RS	80	M64 × 4.0	55	47	180	360	270	100	140	105	1.0	6	570	750	12.0

- It is made up of a maintenance-free radial spherical plain bearing GE..UK or GE..UK 2RS and rod body.
 - For bearings d ≥ 17, GIR..UK 2RS also available, e.g. GAR 20 UK 2RS.
 - For left-hand thread, please add suffix "L", e.g. GARL 20UK.
 - All with forging part.
- Specials on request (only volumes).

- Body: medium carbon steel zinc plating; Inner ring: low carbon steel
- Steel ball: bearing steel.

Rod Ends - SI-N



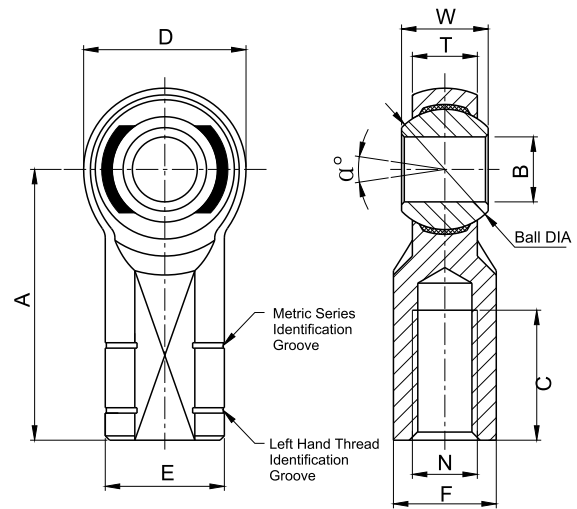
HIGH LOADED INJECTION

AVAILABLE ▶

35CrMo

SS 304

SS 316



Part No.	Dimensions (mm)											Weight (kg)
	N	A	D	E	C	F	T	W	B	α°	Ball DIA	
	Thread 6H	± 0.4	± 0.25	± 0.25	$+1.50$ -0.75	$+0.05$ -0.25	$+0.002$ -0.010	± 0.012	$+0.065$ -0.012	Misalign Angle	REF	Kg≈
SI-N5	M5 × 0.8	27.00	16.00	11.00	14.00	9.00	6.25	8.00	5.00	14°	11.10	0.019
SI-N6	M6 × 1.0	30.00	19.00	13.00	14.00	11.00	7.00	9.00	6.00	13°	12.70	0.029
SI-N8	M8 × 1.25	36.00	22.25	16.00	17.00	14.00	8.75	12.00	8.00	18°	15.88	0.051
SI-N10	M10 × 1.5	43.00	27.00	19.00	21.00	17.00	10.50	14.00	10.00	17°	19.05	0.086
SI-N12	M12 × 1.75	50.00	30.00	22.00	24.00	19.00	12.00	16.00	12.00	17°	22.23	0.124
SI-N14	M14 × 2.0	57.00	34.75	25.00	27.00	22.00	13.50	19.00	14.00	21°	25.40	0.184
SI-N16	M16 × 2.0	64.00	38.00	27.00	33.00	22.00	14.25	21.00	16.00	23°	28.58	0.223
SI-N20	M20 × 1.5	77.00	46.00	34.00	40.00	30.00	18.00	25.00	20.00	20°	34.93	0.436

Material and surface treatments:

- Body: alloy steel 35CrMo with heat treating. Alternative stainless steel 304 or 316.
- Steel ball: bearing steel with hard chrome plating. Alternative stainless steel.
- Race: nylon.

- For left-hand thread, please add suffix "L", e.g. SI-NL 8.
Specials on request (only volumes).

Rod Ends - SA-N



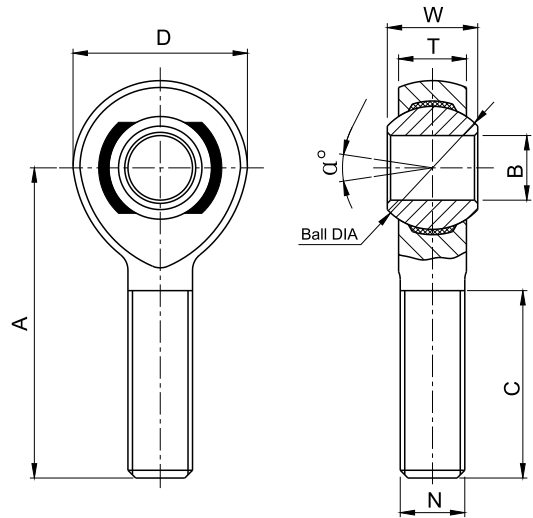
HIGH LOADED INJECTION

AVAILABLE ▶

35CrMo

SS 304

SS 316



Part No.	Dimensions (mm)									Weight (kg)
	N	A	D	C	T	W	B	α°	Ball DIA	
	Thread 6g	±0.4	±0.25	+1.50 -0.75	±0.12	±0.12	+0.065 -0.012	Misalign Angle	REF	Kg≈
SA-N5	M5 × 0.8	33.00	16.00	20.00	6.25	8.00	5.00	14°	11.10	0.012
SA-N6	M6 × 1.0	36.00	19.00	22.00	7.00	9.00	6.00	13°	12.70	0.019
SA-N8	M8 × 1.25	42.00	22.25	25.00	8.75	12.00	8.00	18°	15.88	0.034
SA-N10	M10 × 1.5	48.00	27.00	29.00	10.50	14.00	10.00	17°	19.05	0.058
SA-N12	M12 × 1.75	54.00	30.00	33.00	12.00	16.00	12.00	17°	22.23	0.083
SA-N14	M14 × 2.0	60.00	34.75	36.00	13.50	19.00	14.00	21°	25.40	0.127
SA-N16	M16 × 2.0	66.00	38.00	40.00	14.25	21.00	16.00	23°	28.58	0.170
SA-N20	M20 × 1.5	78.00	46.00	47.00	18.00	25.00	20.00	20°	34.93	0.318

Material and surface treatments:

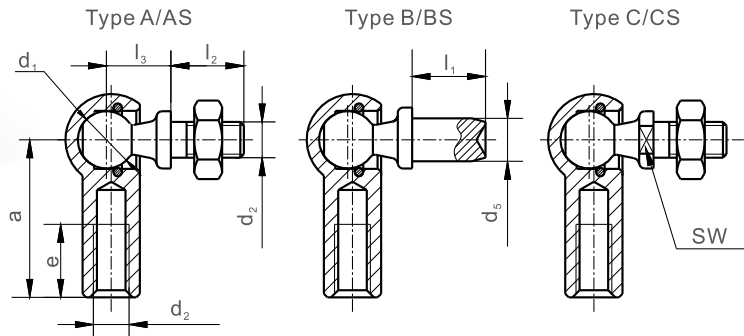
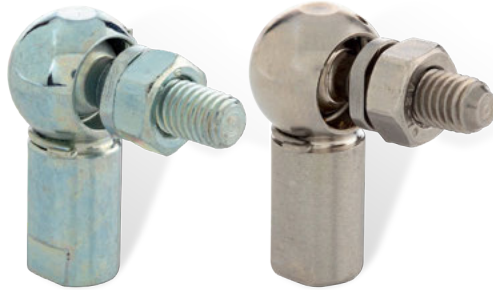
- Body: alloy steel 35CrMo with heat treating. Alternative stainless steel 304 or 316.
- Steel ball: bearing steel with hard chrome plating. Alternative stainless steel.
- Race: nylon.

- For left-hand thread, please add suffix "L", e.g. SA-NL 8.
Specials on request (only volumes).

Ball joints

Angle Joints DIN71802	36
Ball Sockets DIN71805	37
Ball Studs DIN71803	38
Axial Joints DIN71802	39
Ball Joints SQ	40





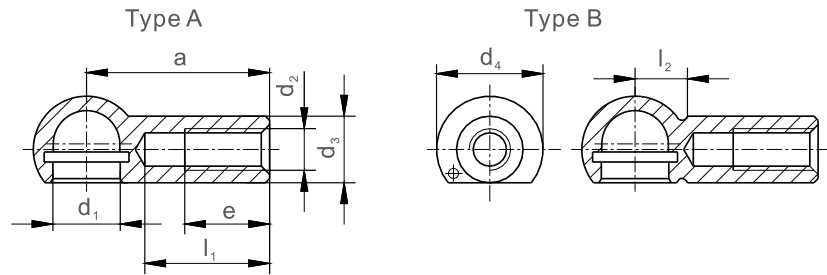
Dimensions (mm)									Weight (kg) kg/1000 pieces for type	
d_1	d_2	l_2	l_3	e	d_5	l_1	a	SW	A and AS C and CS	B and BS
h9		± 0.3	± 0.3	min.	h11	± 0.2	± 0.3	h14		
8	M 5 × 0.8	10.2	9	10.2	5	4.0 7.5	22	7	15.20	12.85 13.35
10	M 6 × 1	12.5	11	11.5	6	4.5 8.0	25	8	25.20	21.30 22.00
13	M 8 × 1.25	16.5	13	14.0	8	5.0 10	30	11	53.10	43.10 45.00
16	M 10 × 1.5 M 12 × 1.75	20.0	16	15.5	10	6.0 13	35	13	103.8	82.30 86.60
19	M 14 × 1.5 M 14 × 2 M 16 × 1.5 M 16 × 2	28.0	20	21.5	14	12 18	45	16	220.9	181.0 188.7

- 1) Type A, B, C without safety clip on the ball socket Type AS, BS, CS with safety clip on the ball socket.
- 2) Ball stud of type C, CS with spanner surface.
- 3) Alternative left-hand thread for the ball socket.
- 4) Ball socket with or without spanner surface or hexagon surface as required.
- 5) Ball stud with or without sealing cap (DK) as required.
- 6) Ball stud with or without nut as required.

Material and surface treatments:

- 1) Ball stud: medium carbon steel. Ball socket: low carbon steel. Snap ring and safety clip: spring steel. Zinc plating.
 - 2) Alternative stainless steel 304 or stainless steel 316.
- Specials on request (only volumes).





Dimensions (mm)								Weight (kg) kg/1000 pieces for type	
d_1	d_2	a	d_3	d_4	e	l_1	l_2	A	B
		± 0.3	± 0.5	± 0.5	min.	max.	± 0.4		
8	M 5 × 0.8	22	8	12.8	10.2	15	6.3	9.0	8.8
10	M 6 × 1	25	10	14.8	11.5	17	7.0	14.2	14.1
13	M 8 × 1.25	30	13	19.3	14.0	20	9.1	29.0	28.8
16	M 10 × 1.5 M 12 × 1.75	35	16	24.0	15.5	22	11.4	57.0	56.8
19	M 14 × 1.5 M 14 × 2 M 16 × 2	45	22	30.0	21.5	28	12.5	125.0	124.8

- 1) Type B with safety clip.
- 2) Alternative with left-hand thread.
- 3) Alternative with spanner surface or hexagon surface.

Material and surface treatments:

- 1) Low carbon steel. Zinc plating.
 - 2) Alternative stainless steel 304 or stainless steel 316.
- Specials on request (only volumes).

Ball Studs



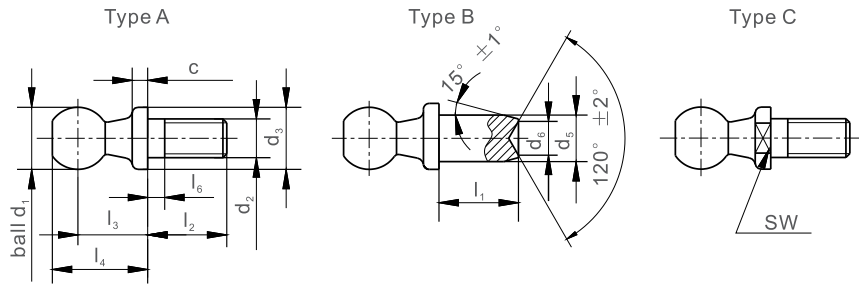
DIN71803

AVAILABLE ▶

ZINC PLATED

SS 304

SS 316

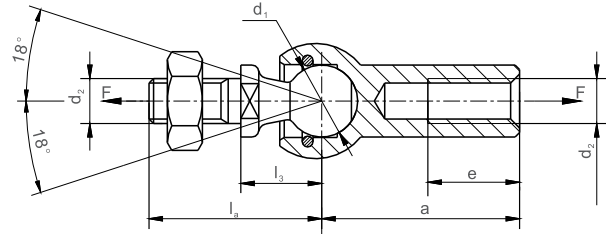


Dimensions (mm)												Weight (kg) kg/1000 pieces for type	
d ₁	d ₂	l ₁	c	d ₃	d ₅	d ₆	l ₂	l ₃	l ₄	l ₆	SW	A and C	B
h9		±0.2	±0.4	h14	h11	-0.4	±0.3	±0.3	±0.3	max.	h14		
8	M 5 × 0.8	4.0 7.5	2.0	8	5	3	10.2	9	12.5	4.0	7	4.55	3.85 4.35
10	M 6 × 1	4.5 8.0	2.2	10	6	4	12.5	11	15.5	4.0	8	8.50	7.10 7.80
13	M 8 × 1.25	5.0 10	2.4	13	8	6	16.5	13	18.5	5.3	11	17.7	14.2 16.0
16	M 10 × 1.5 M 12 × 1.75	6.0 13	2.7	16	10	8	20.0	16	23.0	7.3	13	35.1	23.5 29.6
19	M 14 × 1.5 M 14 × 2 M 16 × 2	12 18	3.0	19	14	10	28.0	20	28.5	10.8	16	71.2	56.2 63.7

- 1) Type A without spanner surface, with thread. Type B without spanner surface, without thread. Type C with spanner surface, with thread.
- 2) The hardness of ball d₁: Min. HRC52; Hardening depth: Min. 1mm.

Material and surface treatments:

- 1) Medium carbon steel. Zinc plating.
 - 2) Alternative stainless steel 304 or stainless steel 316.
- Specials on request (only volumes).



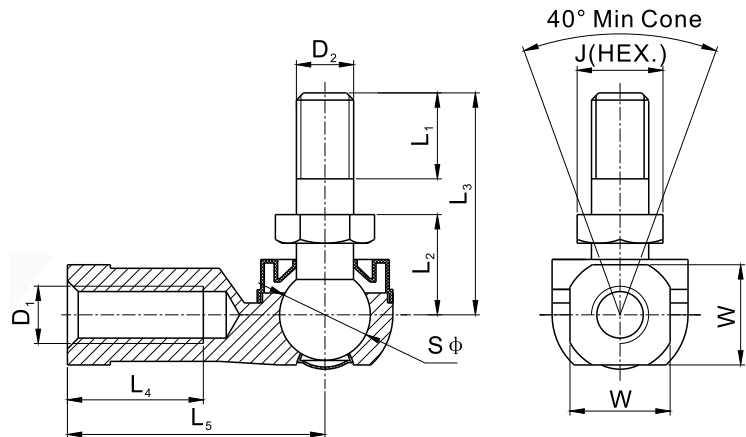
Part No.	Dimensions (mm)						Extraction force F in N*	Weight (kg)
	d ₁ h ₉	d ₂	a	l _a	l ₃	e		
A-C8	8	M 5 × 0.8	22	19.2	9	10.2	30	0.0152
A-C10	10	M 6 × 1	25	23.5	11	11.5	40	0.0252
A-C13	13	M 8 × 1.25	30	29.5	13	14.0	60	0.0531
A-C16	16	M 10 × 1.5 M 12 × 1.75	35	36.0	16	15.5	80	0.1038
A-C19	19	M 14 × 1.5 M 14 × 2 M 16 × 2	45	48.0	20	21.5	100	0.2209

* Also available with higher extraction force. (factor 10). Not possible to dismantle.

- 1) Alternative left-hand thread for the ball socket.
- 2) Ball socket with or without spanner surface or hexagon surface as required.
- 3) With or without sealing cap (DK) as required.

Material and surface treatments:

- 1) Ball stud: medium carbon steel. Ball socket: low carbon steel. Snap ring and safety clip: spring steel. Zinc plating.
 - 2) Alternative stainless steel 304 or stainless steel 316.
- Specials on request (only volumes).



Part No.	Dimensions (mm)										Load ratings (kN)	Weight (kg)
	D ₁	D ₂	L ₁	L ₂	L ₃	L ₄	L ₅	J	W	S φ		
	6H	6g	Min	±0.5	±0.5	Min	±0.5	-0.3	-0.3	±1.0		Kg≈
SQ 5	M5 × 0.8	M5 × 0.8	8.0	10.0	20.0	14.0	27.0	8.0	10.0	10.000	2.0	0.017
SQ 5L	M5 × 0.8-L	M5 × 0.8	8.0	10.0	20.0	14.0	27.0	8.0	10.0	10.000	2.0	0.017
SQ 6	M6 × 1	M6 × 1	11.0	11.0	26.0	16.0	30.0	10.0	11.0	11.112	3.9	0.027
SQ 6L	M6 × 1-L	M6 × 1	11.0	11.0	26.0	16.0	30.0	10.0	11.0	11.112	3.9	0.027
SQ 8	M8 × 1.25	M8 × 1.25	12.0	14.0	31.0	19.0	36.0	12.0	14.0	12.700	6.0	0.057
SQ 8L	M8 × 1.25-L	M8 × 1.25	12.0	14.0	31.0	19.0	36.0	12.0	14.0	12.700	6.0	0.057
SQ 10	M10 × 1.5	M10 × 1.5	21.0	17.0	43.0	23.0	43.0	14.0	17.0	15.875	11.0	0.095
SQ 10L	M10 × 1.5-L	M10 × 1.5	21.0	17.0	43.0	23.0	43.0	14.0	17.0	15.875	11.0	0.095
SQ 12	M12 × 1.75	M12 × 1.75	24.0	19.0	49.0	26.0	50.0	17.0	19.0	19.050	16.0	0.165
SQ 12L	M12 × 1.75-L	M12 × 1.75	24.0	19.0	49.0	26.0	50.0	17.0	19.0	19.050	16.0	0.165
SQ 14	M14 × 2	M14 × 2	28.0	21.5	62.0	30.0	57.0	19.0	22.0	22.225	19.0	0.300
SQ 14L	M14 × 2-L	M14 × 2	28.0	21.5	62.0	30.0	57.0	19.0	22.0	22.225	19.0	0.300
SQ 16	M16 × 2	M16 × 2	29.0	23.5	66.0	34.0	64.0	22.0	24.0	22.225	26.0	0.325
SQ 16L	M16 × 2-L	M16 × 2	29.0	23.5	66.0	34.0	64.0	22.0	24.0	22.225	26.0	0.325

- 1) Move smoothly without stagnation.
- 2) Adequate lubricant should be filled into ball socket.
- 3) Accord with QC / T327 -1999 and relevant standards.

Material and surface treatments:

- 1) Ball socket: high intensive zinc alloy. Natural color.
 - 2) Ball stud: 40Cr alloy steel. Zinc plating.
 - 3) Sealing cap: Neoprene rubber.
- Specials on request (only volumes).





Authorized distributor

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