

A rod end bearing, also known as a heim joint (N. America) or rose joint (U.K. and elsewhere), is a mechanical articulating joint. Such joints are used on the ends of control rods, steering links, tie rods, or anywhere a precision articulating joint is required, and where a clevis end (which requires perfect 90 degree alignment between the attached shaft and the second component) is unsuitable. A ball swivel with an opening through which a bolt or other attaching hardware may pass is pressed into a circular casing with a threaded shaft attached. The threaded portion may be either male or female.

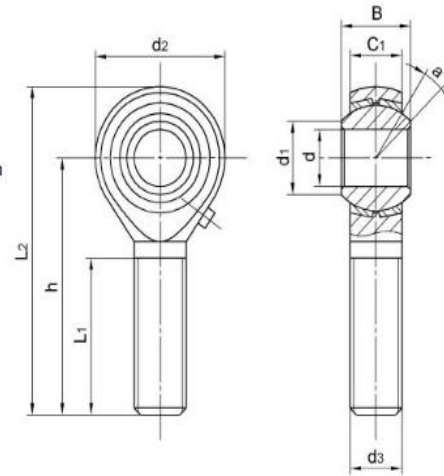
The heim joint's advantage is that the ball insert permits the rod or bolt passing through it to be misaligned to a limited degree (an angle other than 90 degrees).

A link terminated in two heim joints permits misalignment of their attached shafts (viz., other than 180 degrees) when used in tension. When used in compression, the through-rods are forced to the extreme ends of their ball's misalignment range, which cocks the link at an oblique angle.

#### Rod end bearing: POS Series



**Ball:** Gcr15 Steel, heat treated, HRC58-64; Precision ground, polished  
**Body:** Carbon steel, Zinc plated, chromate treated  
**Race:** Brass  
**Sliding contact surfaces:** Steel/Brass



Motion(shanghai)Industrial Development Co.,Ltd

Part No.	Dimensions(mm)									Ball	a0	Load ratings		weight
	d	B	C1	d1	d2	d3-6g	h	L1	L2	dia	mis.	(KN)		≈Kg
											angle	Cr	Cor	
POS3	3	6	4.5	5.1	12	M3	26	15	32	7.93	14	1.5	1.8	0.006
POS4	4	7	5.25	6.5	14	M4	30	19	37	9.52	13	2	2.9	0.011
POS5	5	8	6	7.7	16	M5	33	20	41	11.11	13	2.5	3.5	0.012
POS6	6	9	6.75	8.9	18	M6	36	22	45	12.7	13	3.2	4.8	0.019
POS8	8	12	9	10.3	22	M8	42	25	53	15.87	14	5.4	8.9	0.032
POS10	10	14	10.5	12.9	26	M10	48	29	61	19.05	13	7.5	12.5	0.054
POS12	12	16	12	15.4	30	M12	54	33	69	22.22	13	10	15.8	0.085
POS14	14	19	13.5	16.8	34	M14	60	36	77	25.4	16	13	22.1	0.126
POS15	15	20	14	18.1	36	M14	63	38	81	26.98	16	14.5	23.6	0.186
POS16	16	21	15	19.3	38	M16	66	40	85	28.58	15	16	25.9	0.185
POS17	17	22	16	20.6	40	M16X1.5	69	42	89	30.16	14	18	28.4	0.259
POS18	18	23	16.5	21.8	42	M18x1.5	72	44	93	31.75	15	19.5	30.8	0.26
POS20	20	25	18	24.3	46	M20X1.5	78	47	101	34.92	14	23	36.2	0.34
POS22	22	28	20	25.8	50	M22x1.5	84	51	109	38.1	15	29	42.6	0.435
POS25	25	31	22	29.5	60	M24x2	94	57	124	42.86	15	40.5	74.1	0.65
POS28	28	35	24	32.29	66	M27x2	103	62	136	47.63	15	46.1	88.7	0.875
POS30	30	37	25	34.8	70	M30x2	110	66	145	50.8	17	54.3	94	1.07

www.motnbearing.com