



igubal®
Rod End Bearings

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igus® UK Ltd

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Special properties of igubal® Rod End Bearings:

- Maintenance-free
- High strength under impact loads
- Very high tensile strength for varying loads
- Compensation for alignment errors
- Compensation for edge loads
- Resistant to dirt, dust and lint
- Resistant to corrosion and chemicals
- High vibration dampening capacity
- Suitable for rotating, oscillating and linear movements
- Light weight
- Dimensional series K and E, dimensions according to standard DIN ISO 12240

high temperatures, the load capacity of igubal® rod end bearings should be tested in an experiment that simulates the application.

Loads

igubal® rod end bearings handle high loads at normal room temperatures, have excellent dampening properties and weigh only a fifth of traditional metallic rod end bearings. In applications with high continuous loads and



igubal® | Technical data

Coefficients of Friction and Speed

One important advantage of igubal® spherical bearings is that rapid, rotary movements of a mounted shaft take place directly between the shaft and the iglidur® plain spherical bearing. In metallic rod ends, rotary motion takes place between the race and the spherical bearing. High speeds can be achieved with igubal® bearings.

igubal® bearings are used in such a way that the angular movements of the spherical bearings take place at the outside diameter. By contrast, rotations of the shaft are supported directly in the inner diameter of the spherical bearing. The advantage therefore lies in the polymer vs. steel relationship. Polymer produces lower friction and permits high speeds, even when running dry. The maintenance-free igubal® bearing system is also suitable for linear and oscillating shaft movements.

Product Range

igubal® rod end bearings are available in the dimensional series K and E for shaft diameters of 2 to 30 mm.

- Form A – with male threads
- Form B – with female threads.

The dimensional series K is available in imperial dimensions, as well as a special version containing a stainless steel sleeve in the inner race. This allows a significantly higher torque than for the standard polymer race. Please contact us or visit our website for information on quantities, availability and pricing.

Tolerances

igubal® rod end bearings can be used at different tolerances depending on the individual application. In standard form, they are designed with a large amount of bearing clearance, which permits reliable operation even at high rotational speeds. The bore of the inner race is produced to a standard tolerance range. Shafts should also meet recommended tolerances. Please contact us if you have any questions regarding tolerances.



Picture 51.1: igubal® rod end bearings in a confectionery decorating machine



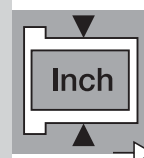
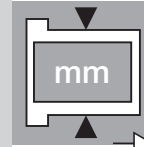
Picture 51.2: igubal® rod end bearings in the a bicycle rear suspension



Picture 51.3: igubal® rod end bearings in the closing mechanism of an outdoor security gate

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igubal® KB..M | Rod End Bearings | mm

KB..M

mm

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51.6



Standard design

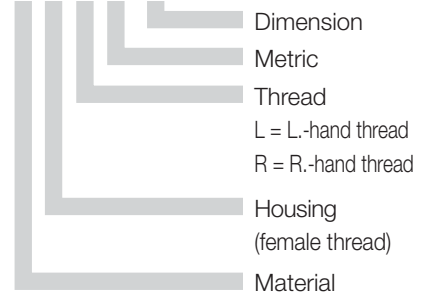


Design with metal sleeve (MH)

Data in mm

Structure – part no.

K B ... M-02



igubal® – Rod End Bearings:

- Maintenance-free, self-lubricating
- High strength under impact loads
- Very high tensile strength for varying loads
- Compensation for alignment errors
- Compensation for edge loads
- Resistant to dirt, dust and lint
- Resistant to corrosion and chemicals
- High vibration dampening capacity
- Suitable for rotating, oscillating and linear movements
- Very low weight
- Dimensional series K according to standard DIN ISO 12240
- Available with a metal sleeve to take a higher torque



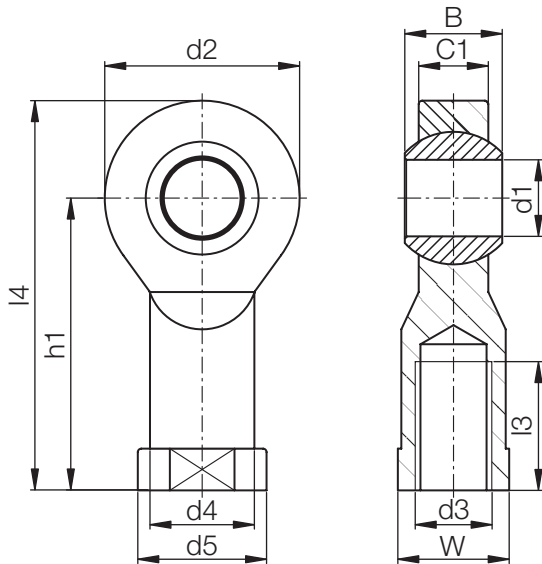
Material

Housing: igumid G
 ► Page 70.6
 Spherical Bearing: iglidur® W300
 ► chapter 5

Load Data

igubal® – Rod End Bearings KBRM / KBLM

Part Number		Max. static tensile strength		Max. radial load		Minimum thread depth [mm]	Max. torque strength inside thread [Nm]	Max. torque through Ball	
R.-hand thread	L.-hand thread	Short term [N]	Long term [N]	Short term [N]	Long term [N]			Standard [Nm]	MH [Nm]
KBRM-02	KBLM-02	200	100	50	25	4	0,30	1	2
KBRM-03	KBLM-03	800	400	100	50	5	0,50	2	4
KBRM-05 M4	KBLM-05 M4	1000	500	250	125	7	0,75	5	12
KBRM-05	KBLM-05	1000	500	250	125	7	1,00	5	12
KBRM-06	KBLM-06	1400	700	400	200	8	1,50	10	15
KBRM-08	KBLM-08	2100	1050	700	350	11	10,0	12	40
KBRM-10	KBLM-10	3100	1550	800	400	13	15,0	20	50
KBRM-10 F	KBLM-10 F	3100	1550	800	400	13	6,00	20	50
KBRM-12	KBLM-12	3600	1800	900	450	15	20,0	30	70
KBRM-12 F	KBLM-12 F	3600	1800	900	450	15	15,0	30	70
KBRM-14	KBLM-14	4000	2000	1000	500	17	25,0	35	75
KBRM-16	KBLM-16	4200	2100	1300	650	19	30,0	40	110
KBRM-16 F	KBLM-16 F	4200	2100	1300	650	19	27,5	40	110
KBRM-18	KBLM-18	4600	2300	1600	800	21	45,0	45	150
KBRM-20	KBLM-20	5400	2700	2100	1050	22	60,0	55	200
KBRM-20 M20	KBLM-20 M20	5400	2700	2100	1050	22	60,0	55	200
KBRM-22	KBLM-22	7000	3500	2200	1100	25	75,0	60	225
KBRM-25	KBLM-25	8500	4250	2300	1150	28	120,0	60	260
KBRM-30	KBLM-30	10500	5250	2500	1250	34	135,0	60	300



Rod End Bearings

KB..M

mm

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Dimensions [mm]

igubal® – Rod End Bearings KBRM / KBLM

Part Number		d1	d2	d3	d4	d5	C1	B	h1	l3	l4	W	Max. pivot angle
		E10											
R.-hand thread	L.-hand thread												
KBRM-02	KBLM-02	2	9	M02	4,0	4,6	3,0	4	12,5	6	17	SW04	30°
KBRM-03	KBLM-03	3	13	M03	6,5	8,0	4,5	6	18,5	8	25	SW06	30°
KBRM-05 M4	KBLM-05 M4	5	18	M04	9,0	12,0	6,0	8	27	10	36	SW09	30°
KBRM-05	KBLM-05	5	18	M05	9,0	12,0	6,0	8	27	10	36	SW09	30°
KBRM-06	KBLM-06	6	20	M06	10,0	13,0	7,0	9	30	12	40	SW11	29°
KBRM-08	KBLM-08	8	24	M08	13,0	16,0	9,0	12	36	16	48	SW14	25°
KBRM-10	KBLM-10	10	30	M10	15,0	19,0	10,5	14	43	20	58	SW17	25°
KBRM-10 F	KBLM-10 F	10	30	M10x1,25	15,0	19,0	10,5	14	43	20	58	SW17	25°
KBRM-12	KBLM-12	12	34	M12	18,0	22,0	12,0	16	50	22	67	SW19	25°
KBRM-12 F	KBLM-12 F	12	34	M12x1,25	18,0	22,0	12,0	16	50	22	67	SW19	25°
KBRM-14	KBLM-14	14	38	M14	20,0	25,0	13,5	19	57	25	76	SW22	23°
KBRM-16	KBLM-16	16	42	M16	22,0	27,0	15,0	21	64	28	85	SW22	23°
KBRM-16 F	KBLM-16 F	16	42	M16x1,5	22,0	27,0	15,0	21	64	28	85	SW22	23°
KBRM-18	KBLM-18	18	46	M18x1,5	25,0	31,0	16,5	23	71	32	94	SW27	23°
KBRM-20	KBLM-20	20	50	M20x1,5	28,0	34,0	18,0	25	77	33	102	SW30	23°
KBRM-20 M20	KBLM-20 M20	20	50	M20x2,5	28,0	34,0	18,0	25	77	33	102	SW30	23°
KBRM-22	KBLM-22	22	56	M22x1,5	30,0	37,0	20,0	28	84	37	112	SW32	22°
KBRM-25	KBLM-25	25	60	M24x2,0	32,0	41,0	22,0	31	94	42	124	SW36	22°
KBRM-30	KBLM-30	30	70	M30x2,0	37,0	50,0	25,0	37	110	51	145	SW41	22°

Rod end bearings can be ordered in metric dimensions **with metal insert** with the addition of **MH** after the part numbers listed here, for example: KBRM-10 **MH**.

Available from stock

Lifetime calculation, CAD files and much more support ► www.igus.co.uk/en/kbrm

