



igubal[®]
Spherical Balls



Available Materials & Features

Available Styles



K Series

E Series

iglide[®] L280 (standard)

- extreme wear resistance

WKM/WKI - metric/inch
WEM/WEI - metric/inch

Page 60.5



K Series

E Series

iglide[®] R

- low cost
- low friction values

REI - inch
REM/RKM - metric

Page 60.6



K Series

E Series

iglide[®] T500

- for high temperatures
- resistant to chemicals

TKM - metric
TEM - metric

Page 60.6



K Series

E Series

iglide[®] J

- low friction values
- low moisture absorption

JKM - metric
JEM - metric

Page 60.7



E Series

iglide[®] UW

- for underwater applications

UWEM - metric

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E Series

iglide[®] JV

- pretensioned

J4VEM - metric

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igubal® Spherical Bearings Spherical Balls Application Examples



Typical industries and applications

- Plant construction
- Model building
- Furniture/Industrial design etc.



Drum bearing in a tumble dryer



igubal® spherical balls in the food industry



Carriage in a crane system



igubal used in an office chair



igubal® Spherical Bearings Spherical Balls

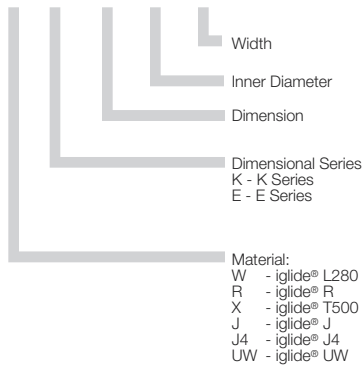
Product Range

- Inner diameters:
Inch sizes from 3/16 to 1"
Metric sizes from 2 - 30 mm
- 6 different materials available

Part Number Structure

Part Number Structure

W E M - 12 - 10



Each iglide® material has its own special properties, which determines the suitability for your special application and requirements.

igubal® spherical bearings are available made from iglide® materials L280 (standard), R, T500, J, J4, and UW. The maintenance-free igubal® spherical bearings have an inside diameter tolerance of E10. The shaft should fall within a tolerance range of h6 to h9. See page 1.14 for details.



Advantages



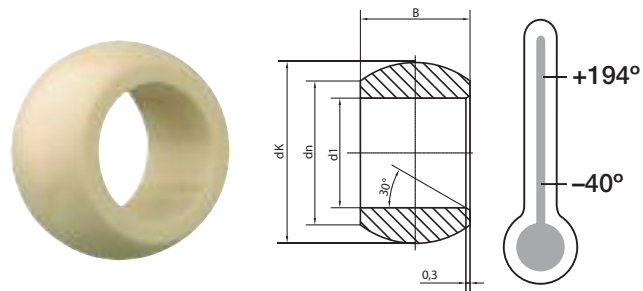
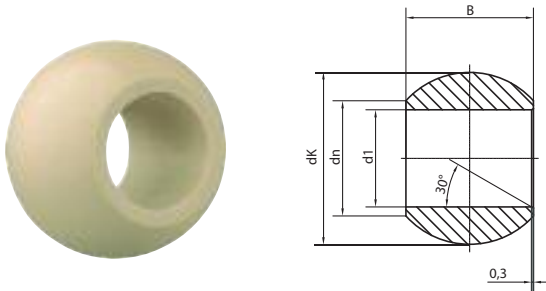
- If maintenance-free material is requested
- If different iglide® materials should be tested
- If high compressive strength is required
- If high elasticity is required



- If temperatures are higher than 492°F
- If dimensions above 1" or 30 mm are necessary
- If rotation speeds higher than 100 fpm are required
- When a plain bearing is required (See iglide® plain bearing section)



Standard – iglide® L280; extreme wear resistance



Dimensions (inch)
igubal® Spherical Balls WKI

Part No.	d1 (E10)	dn	dK	B	Weight (g)
WKI-03	.1900	.307	.444	.312	0.6
WKI-04	.2500	.354	.516	.375	1.0
WKI-05	.3125	.447	.625	.437	1.7
WKI-06	.3750	.504	.718	.500	2.3
WKI-07	.4375	.601	.828	.562	3.5
WKI-08	.5000	.700	.938	.625	5.0
WKI-10	.6250	.838	1.125	.750	8.2
WKI-12	.7500	.978	1.312	.875	12.5
WKI-16	1.0000	1.269	1.750	1.375	31.7

Dimensions (inch)
igubal® Spherical Balls WEI

Part No.	d1 (E10)	dn	dK	B	Weight (g)
WEI-03	.1900	.354	.402	.1900	0.3
WEI-04	.2500	.314	.402	.2500	0.3
WEI-05	.3125	.415	.520	.3125	0.7
WEI-06	.3750	.506	.630	.3750	1.3
WEI-07	.4375	.581	.709	.4063	1.6
WEI-08	.5000	.581	.709	.4063	2.6
WEI-10	.6250	.802	.945	.5000	3.1
WEI-12	.7500	.951	1.138	.6250	5.9
WEI-16	1.0000	1.180	1.398	.7500	9.2

Dimensions (mm)
igubal® Spherical Balls WKM

Part No.	d1 (E10)	dn	dK	B	Weight (g)
WKM-02-04	2.00	3.90	5.10	4.00	0.1
WKM-03-06	3.00	5.10	8.10	6.00	0.3
WKM-05-08	5.00	7.70	11.30	8.00	0.6
WKM-06-09	6.00	8.90	12.80	9.00	0.9
WKM-08-12	8.00	10.30	16.00	12.00	1.6
WKM-10-14	10.00	12.90	19.00	14.00	2.7
WKM-12-16	12.00	15.40	22.10	16.00	4.0
WKM-14-19	14.00	16.80	25.40	19.00	6.0
WKM-16-21	16.00	19.30	28.40	21.00	8.2
WKM-18-23	18.00	21.80	31.50	23.00	10.8
WKM-20-25	20.00	24.30	35.10	25.00	14.5
WKM-22-28	22.00	25.80	38.30	28.00	18.7
WKM-25-31	25.00	29.50	42.90	31.00	26.0
WKM-30-37	30.00	34.80	51.20	37.00	44.7

Dimensions (mm)
igubal® Spherical Balls WEM

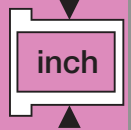
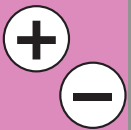
Part No.	d1 (E10)	dn	dK	B	Weight (g)
WEM-04-05	4.00	6.25	8.30	5.00	0.2
WEM-05-06	5.00	8.00	10.30	6.00	0.3
WEM-06-06	6.00	8.00	10.30	6.00	0.4
WEM-08-08	8.00	10.00	13.30	8.00	0.7
WEM-10-09	10.00	13.00	16.10	9.00	1.2
WEM-12-10	12.00	15.00	18.10	10.00	1.5
WEM-15-12	15.00	18.00	22.00	12.00	2.4
WEM-16-13	16.00	19.50	24.10	13.00	3.3
WEM-17-14	17.00	20.00	25.10	14.00	3.7
WEM-20-16	20.00	24.00	29.10	16.00	5.3
WEM-25-20	25.00	29.00	35.60	20.00	9.5
WEM-30-22	30.00	34.00	40.90	22.00	12.1

Available from stock

► Tolerance Table, Page 1.14

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Spherical Balls

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igubal® Spherical Bearings
Spherical Balls - inch, mm - REI, REM, RKM
Spherical Ball - mm - XKM, XEM

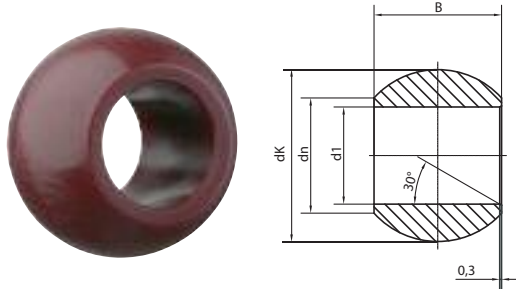
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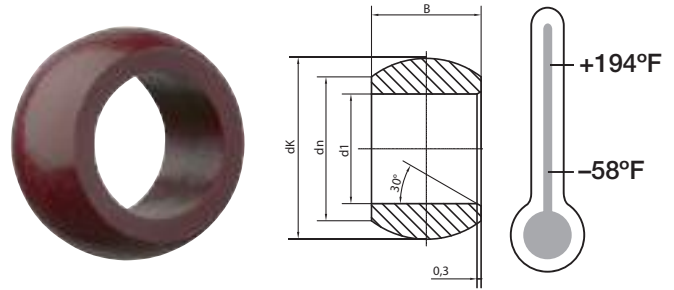
igubal® Spherical Balls - REI, REM, RKM

Low Cost – iglide® R, low friction values, low cost, low moisture absorption



Dimensions (Inch)
 igubal® Spherical Bearings REI

Part No.	d1 (E10)	dn	dK	B	Weight (g)
REI-03	.1900	.354	.402	.1900	0.3
REI-04	.2500	.314	.402	.2500	0.3
REI-05	.3125	.415	.520	.3125	0.7
REI-06	.3750	.506	.630	.3750	1.3
REI-07	.4275	.581	.709	.4063	1.6
REI-08	.5000	.581	.709	.4063	2.6
REI-10	.6250	.802	.945	.5000	3.1
REI-12	.7500	.951	1.138	.6250	5.9
REI-16	1.0000	1.180	1.398	.7500	9.2



Dimensions (mm)
 igubal® Spherical Bearings REM

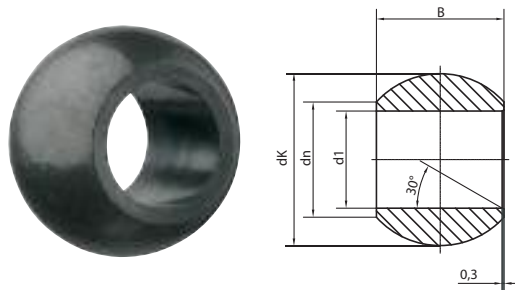
Part No.	d1 (E10)	dn	dK	B	Weight (g)
REM-05-06	5.00	8.00	10.20	6.00	0.4
REM-06-06	6.00	8.00	10.20	6.00	0.4
REM-08-08	8.00	10.00	13.20	8.00	0.8
REM-10-09	10.00	13.00	16.00	9.00	1.3
REM-12-10	12.00	15.00	18.00	10.00	1.8

Dimensions (mm)
 igubal® Spherical Bearings RKM

Part No.	d1 (E10)	dn	dK	B	Weight (g)
RKM-10-14	10.00	12.90	19.00	14.00	2.9

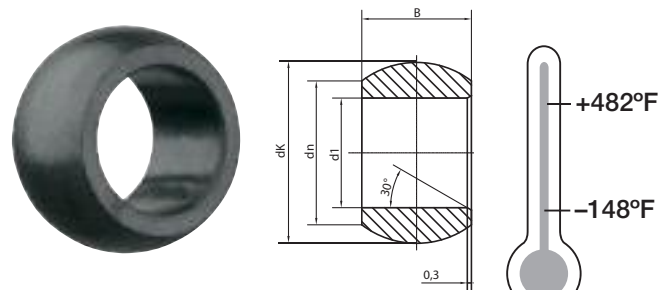
igubal® Spherical Balls - XKM, XEM

High Temperatures – iglide® T500, resistant to chemicals, high temperatures



Dimensions (mm)
 igubal® Spherical Bearings XKM

Part No.	d1 (E10)	dn	dK	B	Weight (g)
XKM-10-04	10.00	12.90	19.10	14.00	2.9



Dimensions (mm)
 igubal® Spherical Bearings XEM

Part No.	d1 (E10)	dn	dK	B	Weight (g)
XEM-05-06	5.00	8.00	10.30	6.00	0.4
XEM-06-06	6.00	8.00	10.20	6.00	0.4
XEM-08-08	8.00	10.00	13.20	8.00	0.8
XEM-10-09	10.00	13.00	16.00	9.00	1.3
XEM-12-10	12.00	15.00	18.00	10.00	1.6

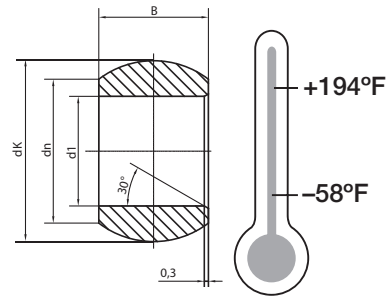
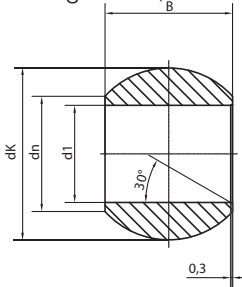
Available for delivery

► Tolerance Table, Page 1.14



igubal® Spherical Balls - JKM, JEM

Low moisture absorption – iglide® J; low friction values



Dimensions (mm)
igubal® Spherical Bearings JKM

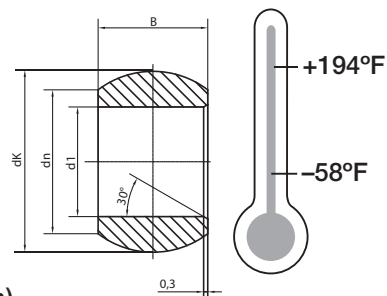
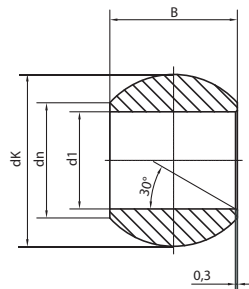
Part No.	d1 (E10)	dn	dK	B	Weight (g)
JKM-03-06	3.00	5.10	8.10	6.00	0.3
JKM-05-08	5.00	7.70	11.30	8.00	0.7
JKM-06-09	6.00	8.90	12.80	9.00	1.0
JKM-08-12	8.00	10.30	15.90	12.00	1.9
JKM-10-14	10.00	12.90	19.00	14.00	3.1
JKM-12-16	12.00	15.40	22.10	16.00	4.7
JKM-16-21	16.00	19.30	28.40	21.00	9.4
JKM-20-25	20.00	24.30	35.10	25.00	17.6
JKM-25-31	25.00	29.50	42.80	31.00	31.6
JKM-30-37	30.00	34.80	51.20	37.00	53.0
JKM-40-49	40.00	44.50	66.30	49.00	54.5
JKM-50-60	50.00	56.50	82.40	60.00	92.1

Dimensions (mm)
igubal® Spherical Bearings JEM

Part No.	d1 (E10)	dn	dK	B	Weight (g)
JEM-04-05	4.00	6.25	8.30	5.00	0.3
JEM-05-06	5.00	8.00	10.20	6.00	0.4
JEM-06-06	6.00	8.00	10.20	6.00	0.4
JEM-08-08	8.00	10.00	13.30	8.00	0.8
JEM-10-09	10.00	13.00	16.10	9.00	1.3
JEM-12-10	12.00	15.00	18.10	10.00	1.7
JEM-15-12	15.00	18.00	22.00	12.00	2.9
JEM-16-13	16.00	19.50	24.10	13.00	3.9
JEM-17-14	17.00	20.00	25.20	14.00	4.1
JEM-20-16	20.00	24.00	29.10	16.00	6.4
JEM-25-20	25.00	29.00	35.60	20.00	11.5
JEM-30-22	30.00	34.00	40.90	22.00	14.5

igubal® Spherical Balls - J4KM, J4EM

Cost-effective – iglide® J4;



Dimensions (mm)
igubal® Spherical Bearings J4EM

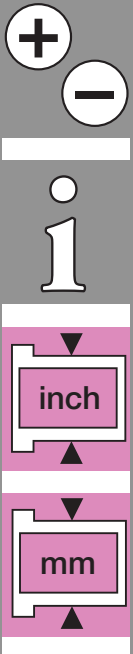
Part No.	d1 (E10)	dn	dK	B	Weight (g)
J4EM-04-05	4.00	6.25	8.25	5.00	0.3
J4EM-05-06	5.00	8.00	10.20	6.00	0.4
J4EM-06-06	6.00	8.00	10.20	6.00	0.4
J4EM-08-08	8.00	10.00	13.20	8.00	0.8
J4EM-10-09	10.00	13.00	16.00	9.00	1.3
J4EM-12-10	12.00	15.00	18.00	10.00	1.7
J4EM-15-12	15.00	18.00	22.00	12.00	2.9
J4EM-16-13	16.00	19.50	24.00	13.00	3.9
J4EM-17-14	17.00	20.00	25.10	14.00	4.1
J4EM-20-16	20.00	24.00	28.90	16.00	6.4
J4EM-25-20	25.00	29.00	35.50	20.00	11.5
J4EM-30-22	30.00	34.00	40.90	22.00	14.5

Dimensions (mm)
igubal® Spherical Bearings J4KM

Part No.	d1 (E10)	dn	dK	B	Weight (g)
J4KM-10-14	10.00	12.90	19.10	14.00	3.1

igubal®
Spherical Balls

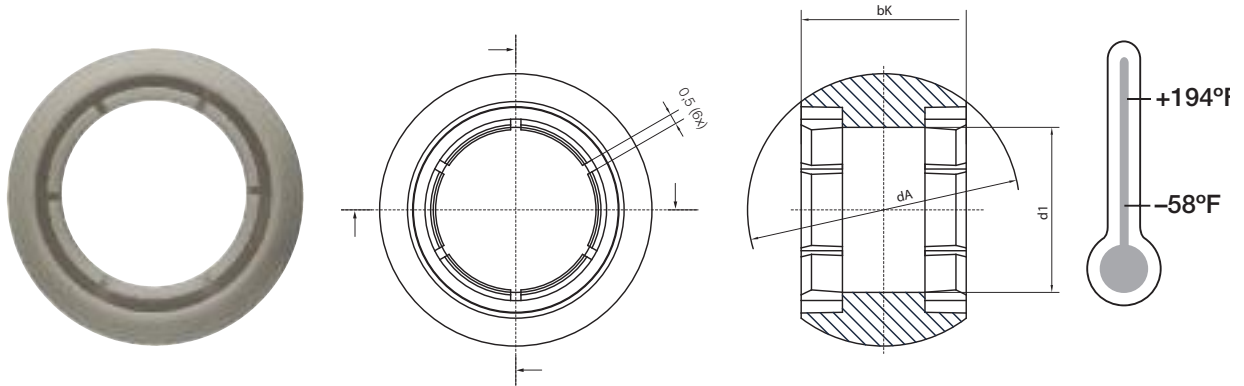
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CAD: www.igus.com/igubal-CAD
RoHS info: www.igus.com/RoHS





igubal® Spherical Balls -J4VEM

Low moisture absorption – iglide® J4; clearance-free



Special Properties

- Can be combined with all housings from design range E
- Sizes 8 to 20 mm
- Pre-loaded
- Totally free from clearance, even in unloaded state
- Material: iglide® J4

Dimensions (mm)

Clearance-free Spherical Bearing

Part No.	d1 (E10)	dA	bK	Weight (g)
J4VEM-08-08	8	13.2	8	0.7
J4VEM-10-09	10	16.1	9	1.2
J4VEM-12-10	12	18.1	10	1.5
J4VEM-16-13	16	24.1	13	3.7
J4VEM-20-16	20	29.1	16	6.2

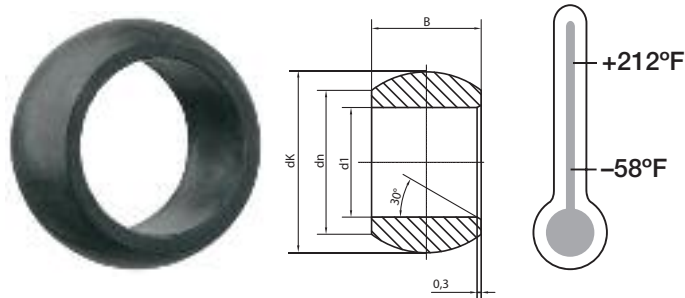
5 Sizes available: Ø 8, 10, 12, 16, 20 mm

Can be used in combination with:

igubal® Rod End Bearing	EB(L)RM	➤ Page 35.12
igubal® Rod End Bearing	EA(L)RM	➤ Page 35.17
igubal® Pillow Block Bearing	ESTM	➤ Page 37.8
igubal® Flange Bearing	EFOM	➤ Page 38.6
igubal® Flange Bearing	EFSM	➤ Page 38.8
igubal® Pressfit Bearing	EGLM	➤ Page 39.7
igubal® Pressfit Bearing	EGFM	➤ Page 39.13
igubal® Double Joint	EGZM	➤ Page 39.15

igubal® Spherical Balls - UWEM

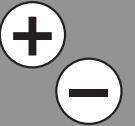
Underwater applications – iglide® UW



Dimensions (mm)

igubal® Spherical Bearings UWEM

Part No.	d1 (E10)	dn	dK	B	Weight (g)
UWEM-16-13	16.00	19.50	23.80	13.00	4.0
UWEM-17-14	17.00	20.00	29.10	14.00	6.5
UWEM-25-20	25.00	29.00	35.50	20.00	11.6
UWEM-30-22	30.00	34.00	40.50	22.00	15.2





igubal® Spherical Bearings Spherical Balls

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Spherical Balls

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