

igus[®]



igubal[®]

Pillow Block

 Action Bearing
Service. Inventory. Solutions.



Available Materials & Features

Available Styles



K Series

Spherical Ball: iglide® L280
Housing: igumid G

- High strength under impact loads
- High vibration dampening

KSTI - inch
Page 57.6

KSTM - metric
Page 57.7



E Series

Spherical Ball: iglide® L280
Housing: igumid G

- High radial loads
- Can be used in liquid

ESTM - metric
Page 57.8



E Series

Adapter for Series E Pillow Blocks

- Same depth gauge as metal pillow blocks
- Space-saving

AD-01-ESTM - metric
Page 57.9



E Series

Split Pillow Block/Ball
Spherical Ball: iglide® J
Housing: RN33

- Ideal for outdoor use
- low moisture absorption

ESTM-GT - metric
Page 57.10



E Series

Spherical Ball: iglide® J
Housing: igumid G

- Lightweight
- Space-saving

ESTM-SL - metric
Page 57.11



K Series

Spherical Ball: iglide® J
Housing: RN33

- High rigidity
- Easy assembly and disassembly

KSTM-GT - metric
Page 57.12



Typical industries and applications

- Industrial
- Machine building
- Packaging etc.



Stone processing



Solar industry



Paper industry



Packaging industry



igubal® Pillow Block Bearing General Information

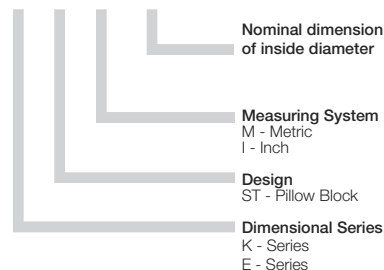
Product Range

- Closed and split design
- Inner diameters
Inch sizes from: 3/16 to 1 in.
Metric sizes from: 5 to 50 mm

Part Number Structure

Part Number Structure

K ST I - 08



Application Temperatures

Minimum	-22°F
Maximum long-term	+176°F
Maximum short-term	+248°F

Usage Guidelines



- If chemical resistance is required
- When shaft misalignment needs to be resolved
- When easy assembly is requested (see split version)
- When dirt/dust resistant bearings are necessary
- In applications where lubrication could present an issue



- If temperatures are higher than 176°F
- If an integrated fixing collar is required
- If dimensions above 1.97" are necessary
- If rotation speeds higher than 9.84 fpm are required



The igubal® pillow block bearings consist of a housing with a bearing insert. igubal® pillow block bearings are especially easy to install, able to compensate for misalignment and prevent edge loads.

Advantages

- Maintenance-free, dry running
- High rigidity
- High strength under impact loads
- Compensation for misalignment
- Compensation for edge loads
- Corrosion-free
- Chemically resistant
- Vibration damping
- Suitable for rotating, oscillating and linear movements
- Lightweight
- High radial loads
- Can be used in liquid media
- Space-saving design
- Easy to install
- Predictable lifetime
- Maintenance-free, lubrication-free

Application Use

The ability to pivot allows igubal® pillow block bearings to compensate for misalignment and possible shaft deflection. Applications where these effects cannot be prevented are suited for igubal pillow block bearings.

Tolerances

Maintenance-free igubal® pillow block bearings are designed with inside diameter tolerance of E10. The shaft should be made to tolerance class h6 to h9. These recommended tolerances allow for changes in the bearing due to temperature and moisture absorption. See tolerance table page 1.14.

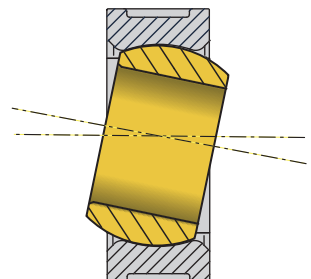
Mounting

igubal® pillow block bearings are designed for mounting with 2 bolts. Precision mounting of the bearing is not necessary, since the spherical ball compensates for misalignment.

Product Range

igubal® pillow block bearings are available in the standard dimensions for shafts of 3/16" to 1" or 5 to 50 mm.

Pivot angle



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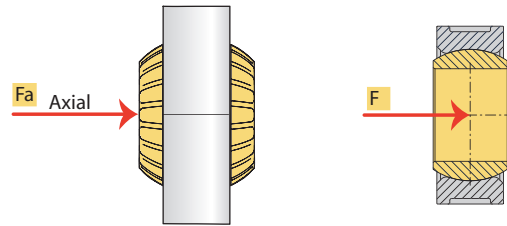
igubal® Pillow Block Bearing Axial and Radial Loads



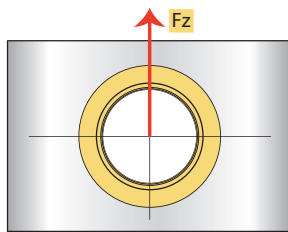
Load

The load capacity of the maintenance-free igubal® bearing elements is very high at normal ambient temperatures. igubal® bearings absorb high forces and weigh only one fifth of traditional, metal bearing housings. The excellent dampening properties are based on the fact that the polymer material of the two part bearing can absorb vibrations differently than steel.

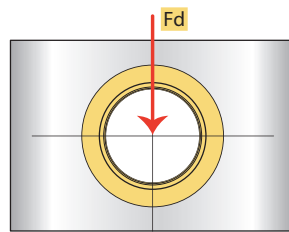
However, plastic specific properties, such as dependence on temperature and behavior under long-term stress, must be taken into consideration when using igubal® bearings. The load capacity of the pillow block should therefore be checked in a practical test, particularly if it will be used under continuous high loads and at elevated temperatures.



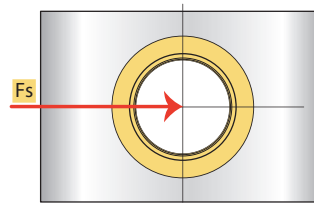
Axial Strength



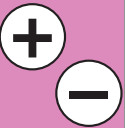
Radial tensile strength
(upward)



Radial compressive strength
(downward)



Lateral strength
(radial)



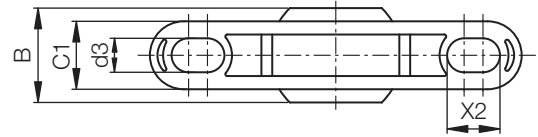
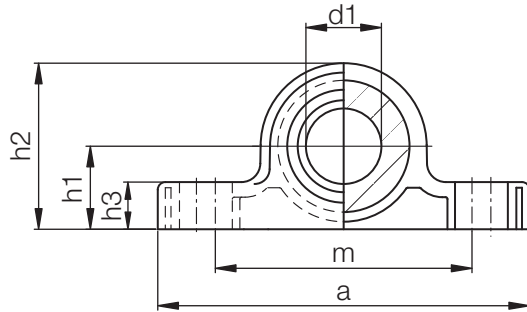


KSTI - Inch

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Material:
 Housing - igumid G
 Ball - iglide® L280



Dimensions (inch)

Part Number	d1 E10	B	C1	h1	h2	h3	a	m	d3	X2	Max. Angle of Pivot
KSTI-03	.1900	.312	.234	.290	.566	.165	1.4000	1.000	.137	.200	25°
KSTI-04	.2500	.375	.250	.390	.705	.205	1.7500	1.250	.137	.250	25°
KSTI-05	.3125	.437	.312	.430	.824	.236	1.9500	1.350	.150	.280	25°
KSTI-06	.3750	.500	.359	.550	1.022	.376	2.4000	1.800	.180	.300	22°
KSTI-07	.4375	.562	.406	.570	1.082	.315	2.5000	1.850	.205	.330	22°
KSTI-08	.5000	.625	.453	.600	1.191	.354	2.8000	2.000	.205	.380	22°
KSTI-10	.6250	.750	.484	.700	1.409	.413	3.3500	2.300	.205	.470	22°
KSTI-12	.7500	.875	.593	.860	1.687	.472	3.7500	2.700	.270	.530	22°
KSTI-16	1.0000	1.375	1.005	1.100	2.163	.630	5.0000	3.500	.520	.680	20°

► Tolerance Table, Page 1.14

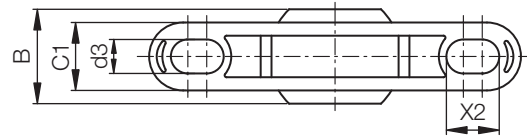
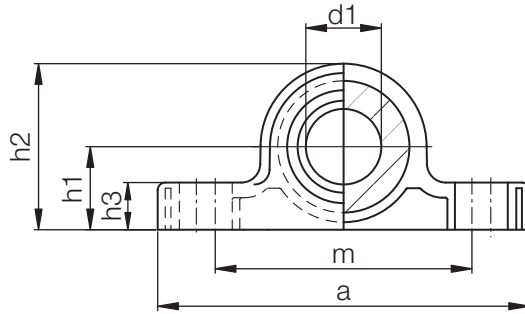
Load Data

Part Number	Maximum Static Tensile Strength		Maximum Static Axial Compressive Strength	Maximum Torque for Longitudinal holes	Weight
	Short-term (lbs)	Long-term (lbs)			
KSTI-03	124	62	68	0.4	1.7
KSTI-04	135	67	68	0.4	2.8
KSTI-05	180	90	90	0.6	4.5
KSTI-06	225	112	112	1.0	7.5
KSTI-07	247	124	135	1.8	9.7
KSTI-08	270	135	135	1.8	13.5
KSTI-10	472	236	180	1.8	21.5
KSTI-12	697	348	270	3.3	33.4
KSTI-16	1214	607	360	7.7	85.8

igubal® Pillow Block Bearing KSTM - MM



Material:
Housing - igumid G
Ball - iglide® L280



Dimensions (mm)

Part Number	d1 E10	B	C1	h1	h2	h3	a	m	d3	X2	Max. Angle of Pivot
KSTM-05	5	8	6.0	7	14	4	34	25	3.3	5	30°
KSTM-06	6	9	7.0	10	18	5.5	43	33	4.5	6	29°
KSTM-08	8	12	9.0	10	20	6	47	33	4.5	7	25°
KSTM-10	10	14	10.5	14	26	7.5	62	46	5.5	8	25°
KSTM-12	12	16	12.0	14	28	8.5	65	46	5.5	9	25°
KSTM-14	14	19	13.5	18	34	9.5	82	60	6.6	11	23°
KSTM-16	16	21	15.0	18	36	10.5	86	60	6.6	12	23°
KSTM-18	18	23	16.5	22	42	11.5	93	68	9.0	13	23°
KSTM-20	20	25	18.0	22	44	13	98	68	9.0	14	23°
KSTM-22	22	28	20.0	24	48	14	108	74	9.0	16	22°
KSTM-25	25	31	22.0	27	54	16	124	86	9.0	17	22°
KSTM-30	30	37	25.0	32	64	17	139	96	11.0	20	22°

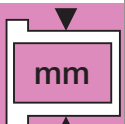
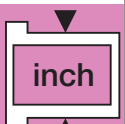
► Tolerance Table, Page 1.14

Load Data

Part Number	Maximum Static Tensile Strength		Maximum Static Axial Compressive Strength	Maximum Torque for Longitudinal holes	Weight
	Short-term (lbs)	Long-term (lbs)			
KSTM-05	157	78	67	0.4	1.7
KSTM-06	247	123	67	1.0	2.9
KSTM-08	292	146	89	1.0	4.6
KSTM-10	337	168	112	1.8	8.6
KSTM-12	494	247	134	1.8	11.8
KSTM-14	539	269	134	3.3	18.4
KSTM-16	674	337	224	3.3	23.7
KSTM-18	786	393	269	7.7	32.2
KSTM-20	1056	528	292	7.7	40.0
KSTM-22	1371	685	314	7.7	54.0
KSTM-25	1483	741	359	7.7	75.3
KSTM-30	1820	910	472	15.9	116.8

KSTM - MM

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





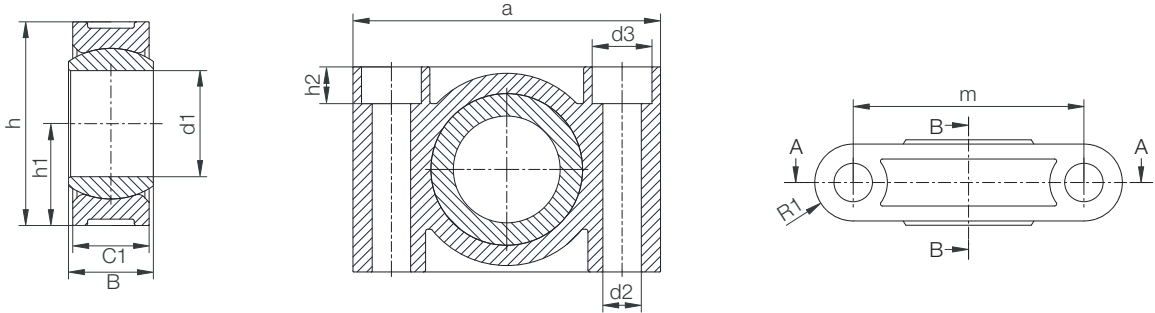
igubal® Pillow Block Bearing ESTM, MM

ESTM - MM



Material:

Housing - igumid G
Ball - iglide® L280



Dimensions (mm)

Part No.	d1 (E10)	d2	d3	h	h1	h2	a	m	C1	B	R1	Max. Angle of Pivot
ESTM-08	8.0	4.5	-	19	9.5	-	31.0	22.0	9.0	8.0	4.5	22°
ESTM-10	10.0	5.5	-	22	11	-	36.0	26.0	10.0	9.0	5.0	22°
ESTM-12	12.0	5.5	-	26	13	-	38.0	28.0	10.0	10.0	5.0	22°
ESTM-16	16.0	6.6	10.6	34	17	6.4	50.0	37.0	13.0	13.0	6.5	22°
ESTM-20	20.0	9.0	14.0	40	20	8.6	62.0	46.0	16.0	16.0	8.0	22°
ESTM-25	25.0	9.0	14.0	48	24	8.6	72.0	54.0	18.0	20.0	9.0	20°
ESTM-30	30.0	11.0	17.0	56	28	10.6	86.0	64.0	22.0	22.0	11.0	20°

► Tolerance Table, Page 1.14

Load Data

Part No.	Max. radial tensile strength		Max. radial compressive strength		Maximum axial strength		Maximum torque bolt holes (ft lbs)	Weight (g)
	Short term (lbs)	Long term (lbs)	Short term (lbs)	Long term (lbs)	Short term (lbs)	Long term (lbs)		
ESTM-08	560	280	965	480	135	65	.95	5.0
ESTM-10	765	380	1190	595	155	80	1.84	7.1
ESTM-12	1010	505	1460	730	165	85	1.84	9.0
ESTM-16	1505	750	1910	955	250	125	3.30	17.5
ESTM-20	1910	955	2470	1290	315	155	3.30	27.4
ESTM-25	3035	1515	4150	2080	515	255	7.75	50.8
ESTM-30*	2250	1125	3710	1855	560	280	7.75	79.7

* Due to the different manufacturing method, the load values of the ESTM-30 are lower than ESTM-25

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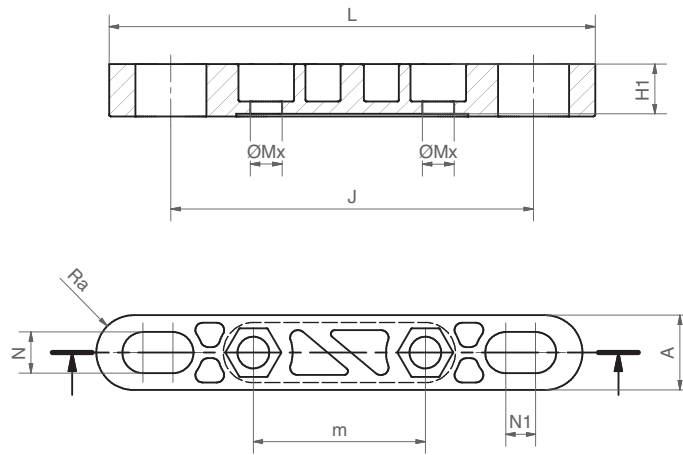
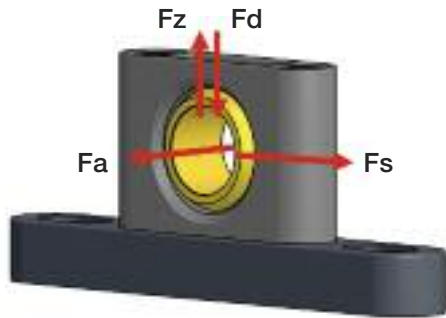
igubal® Pillow Block Bearing AD-ESTM, MM



Material:
Housing - igamid G
Ball - iglide® L280

Special properties

- Same dimensions as metallic pillow blocks
- Lightweight
- For E Series pillow blocks
- Corrosion- and chemical-resistant
- Space-saving



Dimensions [mm]

Part No.	for ESTM-	d1	L	A	Ra	J	H1	N	N1	m	Mx
AD-ESTM-20*	ESTM-20	20	130	20	10	97	14	11	8	46	M8
AD-ESTM-25**	ESTM-25	25	130	20	10	102	12.5	11	9	54	M8
AD-ESTM-30**	ESTM-30	30	158	25	12.5	118	14.9	14	10	64	M10

* Material: plastic

** Material: aluminum

Load data

Part No.	Max. radial tensile strength		Max. radial compressive strength		Maximum axial strength		Maximum lateral strength		Weight (g)
	Short term (lbs)	Long term (lbs)	Short term (lbs)	Long term (lbs)	Short term (lbs)	Long term (lbs)	Short term (lbs)	Long term (lbs)	
AD-ESTM-20*	540	270	2,250	1,125	675	335	270	135	29.8
AD-ESTM-25**	540	270	2,250	1,125	675	335	270	135	74
AD-ESTM-30**	540	270	2,250	1,125	675	335	270	135	124

* Material: plastic

** Material: aluminum

AD-ESTM - MM

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





ESTM-GT - MM



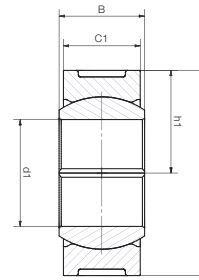
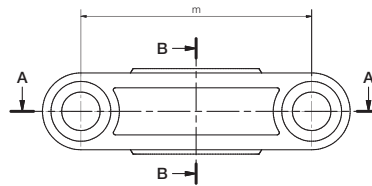
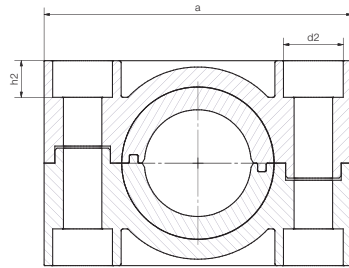
Special properties

- Save time during assembly and disassembly of shafts, no more threading
- Low installation space and low weight
- High rigidity and fatigue strength
- Adapter available, ► Page 57.9

Material:

Housing - RN33
Ball - iglide® J standard

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Dimensions [mm]

Part No.	d1 (E10)	d2	h	h1	h2	a	m	C1	B	R1	Max. pivot Angle
ESTM-GT16-GT	16.0	6.6	34.0	17.0	6.4	50.0	37.0	13.0	13.0	6.5	22°
ESTM-GT20-GT	20.0	9.0	40.0	20.0	8.6	62.0	46.0	16.0	16.0	8.0	22°
ESTM-GT25-GT	25.0	9.0	48.0	24.0	8.6	72.0	54.0	18.0	20.0	9.0	22°
ESTM-GT30-GT	30.0	11.0	56.0	28.0	10.6	86.0	64.0	22.0	22.0	11.0	22°

► Tolerance Table, Page 1.14

Load Data (mm)

Part No.	Max. static tensile strength		Max. static axial compressive strength		Weight (g)
	Short term	Long term	Short term	Long term	
	(lbs)	(lbs)	(lbs)	(lbs)	
ESTM-GT16-GT	562	281	900	450	18
ESTM-GT20-GT	787	393	1349	674	28
ESTM-GT25-GT	1124	562	1575	787	52
ESTM-GT30-GT	1237	618	2250	1124	84

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igubal® Pillow Block Bearing ESTM-XX-SL, MM

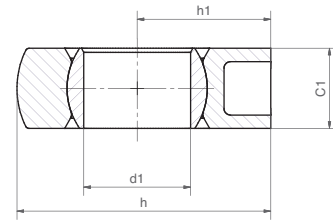
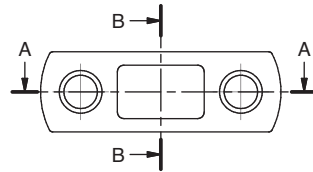
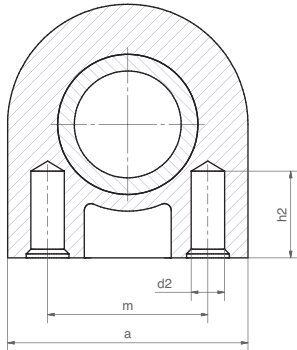


Special properties

- Space-saving
- Lightweight
- Maintenance- and lubricant-free
- Predictable lifetime

Material:

Housing - igumid G
Ball - iglide® J standard



Dimensions (mm)

Part No.	d1 (H10)	d2	h	h1	h2	a	m	C1	Max. Pivot Angle	Weight (g)
ESTM-05-SL	5.0	2.5	18.0	10.0	6.5	16.0	10.0	6.0	17°	1.6
ESTM-06-SL	6.0	2.5	18.0	10.0	6.5	16.0	10.0	6.0	17°	1.7
ESTM-08-SL	8.0	2.5	19.0	10.0	6.5	18.0	12.0	6.0	17°	1.7
ESTM-10-SL	10.0	2.5	20.0	10.0	6.5	20.0	14.0	6.0	17°	1.9

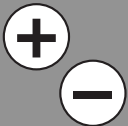
► Tolerance Table, Page 1.14

Load Data (mm)

Part No.	Max. radial tensile strength		Max. radial compressive strength		Maximum lateral strength		Maximum axial strength	
	Short term (lbs)	Long term (lbs)	Short term (lbs)	Long term (lbs)	Short term (lbs)	Long term (lbs)	Short term (lbs)	Long term (lbs)
ESTM-05-SL	337	169	315	157	202	101	34	17
ESTM-06-SL	337	169	315	157	202	101	34	17
ESTM-08-SL	360	180	315	157	214	107	22	11
ESTM-10-SL	360	180	315	157	214	107	22	11

ESTM-XX-SL - MM

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CAD: www.igus.com/igubal-CAD
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KSTM-GT - MM

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Familiar characteristics such as self-adjustment and zero-maintenance are now available with dimensions of 35, 40, 45 and 50 mm.

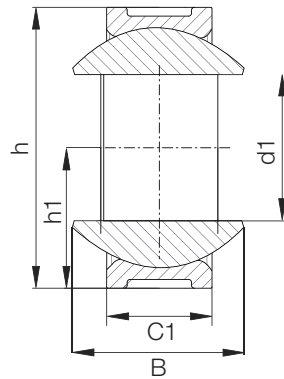
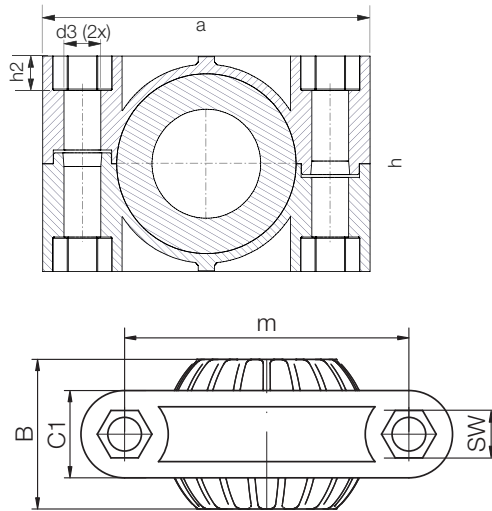


Special Properties

- Installation is easy and does not require shaft removal
- Maintenance-free, dry running
- For high static loads
- Space-saving
- Low weight
- High rigidity
- Predictable lifetime

Material:

Housing - RN33
Ball - iglide® J



Dimensions (mm)

Part No.	d1 (E10)	d3	h	h1	h2	SW	a	m	C1	B	Max. Pivot Angle
KSTM-GT35*	35.0	13.5	79.0	39.5	12.6	19.0	120.5	91.0	29.5	48.5	24°
KSTM-GT40	40.0	13.5	79.0	39.5	12.6	19.0	120.5	91.0	29.5	48.5	24°
KSTM-GT40 GT**	40.0	13.5	79.0	39.5	12.6	19.0	120.5	91.0	29.5	48.5	24°
KSTM-GT45*	45.0	13.5	100.0	50.0	12.6	19.0	149.0	114.0	35.0	60.0	24°
KSTM-GT50	50.0	13.5	100.0	50.0	12.6	19.0	149.0	114.0	35.0	60.0	24°
KSTM-GT50 GT**	50.0	13.5	100.0	50.0	12.6	19.0	149.0	114.0	35.0	60.0	24°

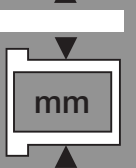
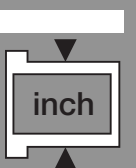
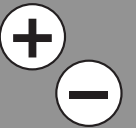
► Tolerance Table, Page 1.14

Load data

Part No.	Max. radial tensile strength		Max. axial tensile strength		Max. torque		Weight (g)
	Short term (lbs)	Long term (lbs)	Short term (lbs)	Long term (lbs)	through ball (ft lbs)	fixing holes (ft lbs)	
KSTM-GT35*	2,473	1,236	562	281	14.8	11.1	250.3
KSTM-GT40	2,473	1,236	562	281	14.8	11.1	235.0
KSTM-GT40 GT**	2,473	1,236	562	281	14.8	11.1	235.0
KSTM-GT45*	3,372	1,686	674	337	14.8	14.8	405.2
KSTM-GT50	3,372	1,686	674	337	14.8	14.8	389.2
KSTM-GT50 GT**	3,372	1,686	674	337	14.8	14.8	389.2

*Inside diameter achieved with plain iglide® J bearing pressed into ID of spherical ball

**Spherical balls are also available with split design





igubal® Pillow Block

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