

igus®



iglide® T500

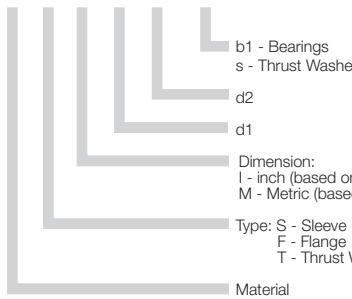
Product Range

- Standard Styles:
Sleeve, Flange and Thrust Washer
 - Custom shapes and sizes available
 - Inner diameters:
Inch sizes from 1/8 - 2-3/4 in.
Metric sizes from 2 - 75 mm

Part Number Structure

Part Number Structure

T S I-02 03-03



- b1 - Bearings
- s - Thrust Washer
- d2
- d1
- Dimension:
I - inch (based on 1/16")
M - Metric (based on mm)
- Type: S - Sleeve
F - Flange
T - Thrust Washer
- Material

Permissible Surface Speeds

	Continuous fpm	Short Term fpm
Rotating	295	689
Oscillating	216	492
Linear	984	1968

Usage Guidelines



- When especially high temperature resistance is necessary
 - For loads up to 21,750 psi
 - For linear movements with a hard stainless steel
 - For linear movements especially at high temperatures
 - When universal resistance to chemicals is required



- For very low wear at high loads
 - iglide® Q, Z
 - For edge compression
 - iglide® Z

Material Table

General Properties

General Properties	Unit	iglide® T500	Testing Method
Density	g/cm ³	1.44	
Color		black	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.1	DIN 53495
Max. moisture absorption	% weight	0.5	
Coefficient of friction, dynamic against steel	μ	0.09 - 0.27	
p x v-value, max. (dry)	psi x fpm	37,700	

Mechanical Properties

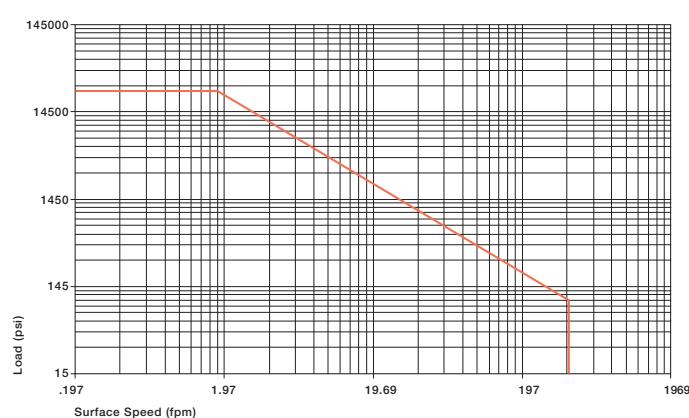
Modulus of elasticity	psi	1,174,500	DIN 53457
Tensile strength at 68°F	psi	24,650	DIN 53452
Compressive strength	psi	14,500	
Permissible static surface pressure (68°F)	psi	21,750	
Shore D-hardness		85	DIN 53505

Physical and Thermal Properties

Max. long-term application temperature	°F	482	
Max. short-term application temperature	°F	599	
Min. application temperature	°F	-148	
Thermal conductivity	W/m x K	0.6	ASTM C 177
Coefficient of thermal expansion (to 73°F)	K ⁻¹ x 10 ⁻⁵	5	DIN 53752

Electrical Properties

Specific volume resistance	Ωcm	$< 10^5$	DIN IEC 93
Surface resistance	Ω	$< 10^3$	DIN 53482



Graph. 13.1: Permissible p x v values for iglide® T500 running dry against a steel shaft, at 68°F



Visit www.igus.com
to use our online
expert system

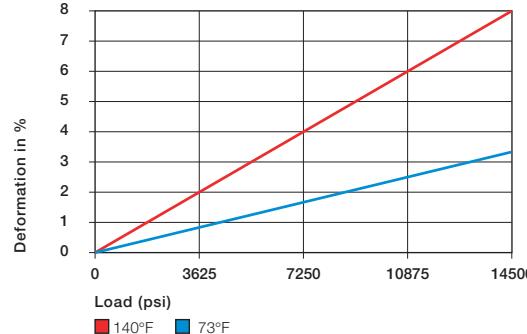
iglide® T500 is defined by its combination of high temperature-resistance with compressive strength, along with high resistance to chemicals.

Compressive Strength

Graph 13.2 shows how iglide® T500 plain bearings deform elastically under load. Graph 13.1 on the preceding page shows the maximum p x v values at room temperature. In this case, the compressive strength of iglide® T500 even measures up to that of steel.

Graph 13.3 shows the special compression resistance of iglide® T500 also at very high temperatures. Even at the highest long-term application temperature of 482°F, iglide® T500 plain bearings still withstand a static surface pressure of approximately 4350 psi.

- Compressive Strength, Page 1.3



Graph 13.2: Deformation under load and temperature

Permissible Surface Speeds

iglide® T500 is designed for higher speeds than other iglide® bearings. This is due to its high temperature resistance and excellent heat conductivity. These benefits are readily apparent in the p x v values of max. 1.32 psi x fpm.

However, only the smallest radial loads may act on the bearings. At the given speeds, friction can cause a temperature increase to maximum permissible levels.

- Surface Speed, Page 1.5
- p x v Value, Page 1.6

Temperatures

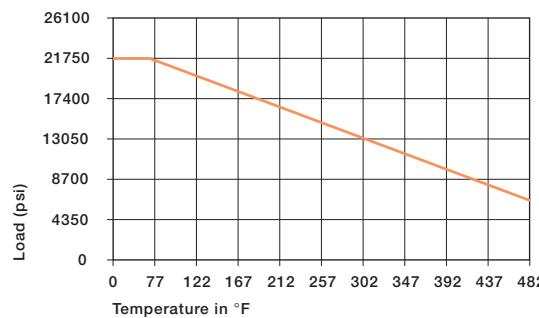
In terms of temperature resistance, iglide® T500 has also taken on a leading position. Having a permissible long-term application temperature of 482°F, iglide® T500 will even withstand 599°F for the short-term.

As in all thermoplastics, the compression resistance of T500 decreases with increasing temperature. However, the wear drops considerably when used within the observed temperature range of 73°F to 302°F. In certain cases, relaxation of the bearing can even occur at temperatures greater than 338°F. This could lead to, after re-cooling, the bearing moving out of the housing. At temperatures over 338°F, the axial security of the bearing in the housing needs to be tested. If necessary, secondary measures must be taken to mechanically secure the bearing. Please contact us if you have questions on bearing use.

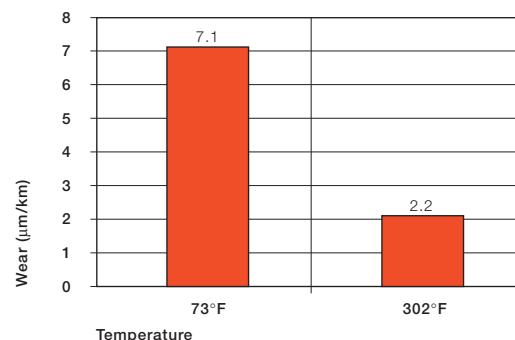
- Application Temperatures, Page 1.7

	Continuous fpm	Short Term fpm
Rotating	295	689
Oscillating	216	492
Linear	984	1968

Table 13.2: Maximum surface speeds



Graph 13.3: Recommended maximum permissible static surface pressure of iglide® T500 as a result of temperature



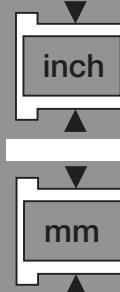
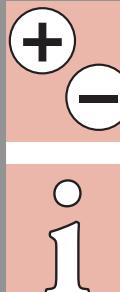
Graph 13.4: Wear of iglide® T500, Rotation with $p = 108$ psi, $v = 98$ fpm, shaft made of Cold Rolled Steel

iglide® T500	Application Temperature
Minimum	- 148 °F
Max., long-term	+ 482 °F
Max., short-term	+ 599 °F

Table 13.3: Temperature limits for iglide® T500

iglide® T500

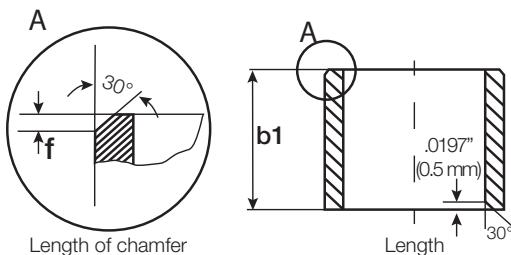
PDF: www.igus.com/iglide-pdfs
CAD: www.igus.com/iglide-CAD
RoHS info: www.igus.com/RoHS



Installation Tolerances

iglide® T500 plain bearings are oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

- See Tolerance Table, Page 1.14
- Testing Methods, Page 1.15



For Inch Size Bearings

Length (inches)	Tolerance (h13) (inches)	Length of Chamfer (f) Based on d1
0.1181 to 0.2362	-0.0000 / -0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 / -0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 / -0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 / -0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 / -0.0154	
1.9685 to 3.1496	-0.0000 / -0.0181	

For Metric Size Bearings

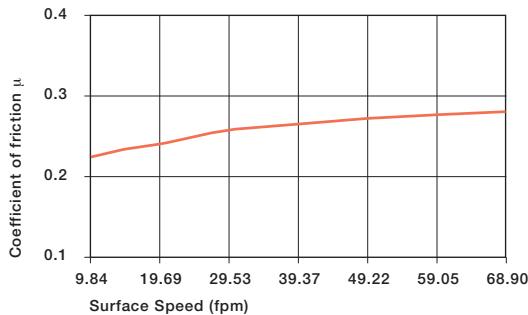
Length (mm)	Tolerance (h13) (μm)	Length of Chamfer (f) Based on d1
1 to 3	-0 / -140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 / -180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 / -220	f = 0.8 → d ₁ > 12 - 30 mm
> 10 to 18	-0 / -270	f = 1.2 → d ₁ > 30 mm
> 18 to 30	-0 / -330	
> 30 to 50	-0 / -390	
> 50 to 80	-0 / -460	

Friction and Wear

Similar to wear resistance, the coefficient of friction μ also changes with the load. The coefficient of friction increases with an increase in surface speed. On the other hand, an increased load has an inverse effect: the coefficient of friction decreases (see Graph 13.5 and 13.6). This explains the excellent performance of iglide® T500 plain bearings for high loads.

Friction and wear are also, dependent to a large degree on the shafting partner. Shafts that are too smooth increase the coefficient of friction of the bearing. For iglide T500 a ground surface with an average roughness range of 24 - 32 rms is recommended for the shaft.

- Coefficients of friction and surfaces, Page 1.8
- Wear resistance, Page 1.9



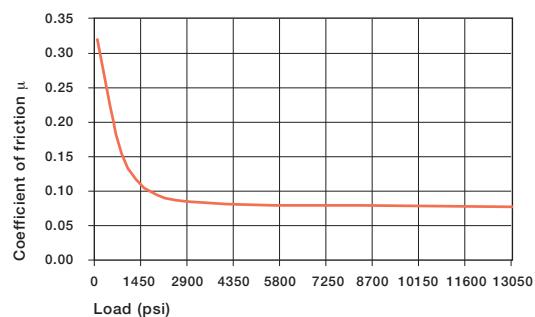
Graph 13.5: Coefficient of friction for iglide® T500 as a result of the surface speed; p = 108 psi, shaft Cold Rolled Steel

iglide® T500

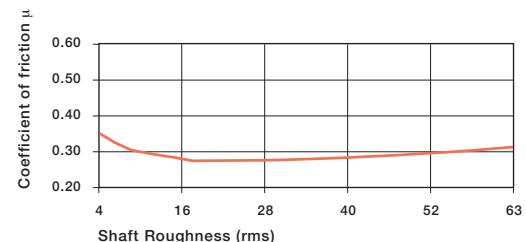
Coefficient of Friction

Dry	0.09 - 0.27
Grease	0.09
Oil	0.04
Water	0.04

Table 13.4: Coefficient of friction for iglide® T500 against steel (Shaft finish = 40 rms, 50 HRC)



Graph 13.6: Coefficient of friction for iglide® T500 as a result of the load, v = 1.97 fpm



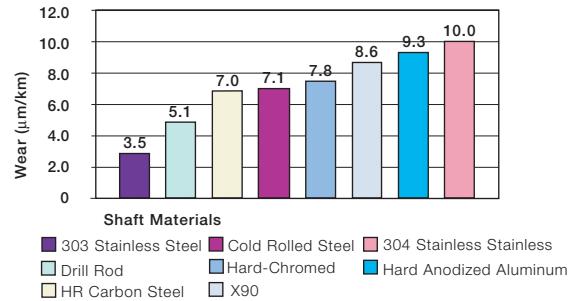
Graph 13.7: Coefficients of friction as a function of the shaft surface (shaft Cold Rolled Steel)

Shaft Materials

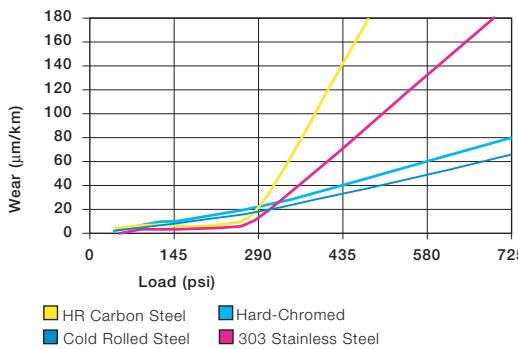
Graph 13.8 and 13.9 show results of testing different shaft materials with plain bearings made of iglide® T500. For low loads in rotating operation, the best wear values are found with 303 Stainless and HR Carbon Steel shafts. However, above a load of 290 psi, the bearing wear greatly increases with these two shaft materials. For the higher load range, hard-chromed shafts or Cold Rolled Steel shafts are advantageous. In oscillating operation at low loads, similar wear values for cold rolled Steel and 303 stainless steel shafts occur. The wear is somewhat higher than during rotational movements.

If the shaft material you plan to use is not contained in this list, please contact us.

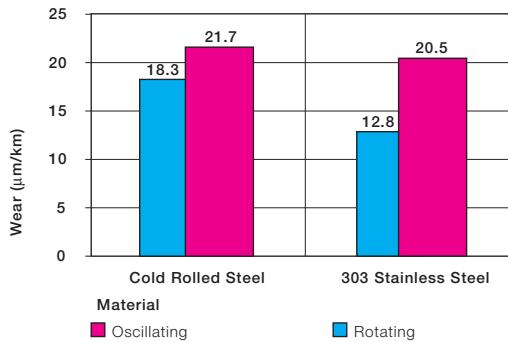
► Shaft Materials, Page 1.11



Graph 13.8: Wear of iglide® T500 with different shaft materials, $p = 108$ psi, $v = 98$ fpm



Graph 13.9: Wear of iglide® T500 with different shaft materials in rotational operation



Graph 13.10: Wear for oscillating and rotating applications with different shaft materials $p = 290$ psi

Chemical Resistance

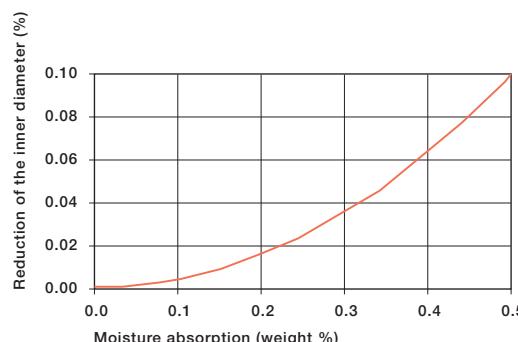
iglide® T500 plain bearings are close to universally resistant to chemicals.

They are only attacked by concentrated nitric acid and by sulfuric acid with acidity levels over 65%. The list at the end of this catalog provides more comprehensive detailed information.

► Chemicals Table, Page 1.16

Medium	Resistance
Alcohol	+
Hydrocarbons, chlorinated	+
Greases, oils without additives	+
Fuels	+
Weak acids	+
Strong acids	+
Weak alkaline	+
Strong alkaline	+

+ resistant, 0 conditionally resistant, - not resistant

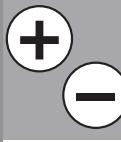


Graph 13.11: Effect of moisture absorption on iglide® T500 plain bearings

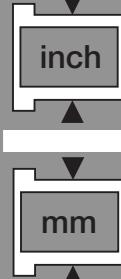
Table 13.5: Chemical resistance of iglide® T500
All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see page 1.16

iglide® T500

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



1
inch
mm



Radiation Resistance

Plain bearings made from iglide® T500 are resistant to radiation up to an intensity of 1×10^5 Gy. iglide® T500 is the most radioactive-resistant material of the iglide® product line. iglide® T500 is extremely resistant to hard gamma radiation and withstands a radiation dose of 1000 Mrad without detectable change in its properties. The material also withstands an alpha or beta radiation of 10,000 Mrad with practically no damage.

UV Resistance

The excellent material properties of iglide® T500 do not change under UV radiation and other weathering effects.

Vacuum

In a vacuum environment, iglide® T500 plain bearings can be used virtually without restrictions. Outgassing takes place to a very limited extent.

Electrical Properties

iglide® T500 plain bearings are electrically conductive.

iglide® T500

Specific volume resistance $< 10^5 \Omega\text{cm}$

Surface Resistance $< 10^3 \Omega$

Table 13.6: Electrical properties of iglide® T500

Application Examples



Picture 13.1: Intake control device



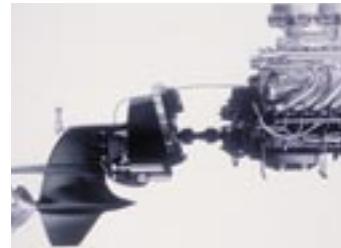
Picture 13.2: Battery decanting



Picture 13.3: Flaps, valves



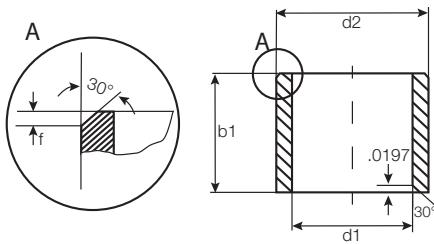
Picture 13.4: Catering equipment



Picture 13.5: Application on an outboard engine



Picture 13.6: iglide® T500 plain bearing in valve applications



For tolerance values
please refer to page 13.4

Part Number	d1	d2	b1	I.D. After Pressfit		Housing Bore		Shaft Size	
				Max.	Min.	Max.	Min.	Max.	Min.
TSI-0203-03	1/8	3/16	3/16	.1269	.1251	.1878	.1873	.1243	.1236
TSI-0203-05	1/8	3/16	5/16	.1269	.1251	.1878	.1873	.1243	.1236
TSI-0203-06	1/8	3/16	3/8	.1269	.1251	.1878	.1873	.1243	.1236
TSI-0304-03	3/16	1/4	3/16	.1892	.1873	.2503	.2497	.1865	.1858
TSI-0304-04	3/16	1/4	1/4	.1892	.1873	.2503	.2497	.1865	.1858
TSI-0304-06	3/16	1/4	3/8	.1892	.1873	.2503	.2497	.1865	.1858
TSI-0304-08	3/16	1/4	1/2	.1892	.1873	.2503	.2497	.1865	.1858
TSI-0405-04	1/4	5/16	1/4	.2521	.2498	.3128	.3122	.2490	.2481
TSI-0405-06	1/4	5/16	3/8	.2521	.2498	.3128	.3122	.2490	.2481
TSI-0405-08	1/4	5/16	1/2	.2521	.2498	.3128	.3122	.2490	.2481
TSI-0506-04	5/16	3/8	1/4	.3148	.3125	.3753	.3747	.3115	.3106
TSI-0506-06	5/16	3/8	3/8	.3148	.3125	.3753	.3747	.3115	.3106
TSI-0506-08	5/16	3/8	1/2	.3148	.3125	.3753	.3747	.3115	.3106
TSI-0607-04	3/8	15/32	1/4	.3773	.3750	.4691	.4684	.3740	.3731
TSI-0607-05	3/8	15/32	5/16	.3773	.3750	.4691	.4684	.3740	.3731
TSI-0607-06	3/8	15/32	3/8	.3773	.3750	.4691	.4684	.3740	.3731
TSI-0607-08	3/8	15/32	1/2	.3773	.3750	.4691	.4684	.3740	.3731
TSI-0607-10	3/8	15/32	5/8	.3773	.3750	.4691	.4684	.3740	.3731
TSI-0607-12	3/8	15/32	3/4	.3773	.3750	.4691	.4684	.3740	.3731
TSI-0708-04	7/16	17/32	1/4	.4406	.4379	.5316	.5309	.4365	.4355
TSI-0708-08	7/16	17/32	1/2	.4406	.4379	.5316	.5309	.4365	.4355
TSI-0708-10	7/16	17/32	5/8	.4406	.4379	.5316	.5309	.4365	.4355
TSI-0708-12	7/16	17/32	3/4	.4406	.4379	.5316	.5309	.4365	.4355
TSI-0709-06	7/16	17/32	3/8	.4406	.4379	.5316	.5309	.4365	.4355
TSI-0809-04	1/2	19/32	1/4	.5030	.5003	.5941	.5934	.4990	.4980
TSI-0809-06	1/2	19/32	3/8	.5030	.5003	.5941	.5934	.4990	.4980
TSI-0809-08	1/2	19/32	1/2	.5030	.5003	.5941	.5934	.4990	.4980
TSI-0809-10	1/2	19/32	5/8	.5030	.5003	.5941	.5934	.4990	.4980
TSI-0809-12	1/2	19/32	3/4	.5030	.5003	.5941	.5934	.4990	.4980
TSI-0809-16	1/2	19/32	1	.5030	.5003	.5941	.5934	.4990	.4980
TSI-0910-08	9/16	21/32	1/2	.5655	.5627	.6566	.6559	.5615	.5605
TSI-0910-12	9/16	21/32	3/4	.5655	.5627	.6566	.6559	.5615	.5605
TSI-1011-04	5/8	23/32	1/4	.6280	.6253	.7192	.7184	.6240	.6230
TSI-1011-06	5/8	23/32	3/8	.6280	.6253	.7192	.7184	.6240	.6230
TSI-1011-08	5/8	23/32	1/2	.6280	.6253	.7192	.7184	.6240	.6230
TSI-1011-10	5/8	23/32	5/8	.6280	.6253	.7192	.7184	.6240	.6230
TSI-1011-12	5/8	23/32	3/4	.6280	.6253	.7192	.7184	.6240	.6230
TSI-1011-16	5/8	23/32	1	.6280	.6253	.7192	.7184	.6240	.6230
TSI-1112-04	11/16	25/32	1/4	.6906	.6879	.7817	.7809	.6865	.6855
TSI-1112-14	11/16	25/32	7/8	.6906	.6879	.7817	.7809	.6865	.6855

iglide® T500
Sleeve - Inch

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



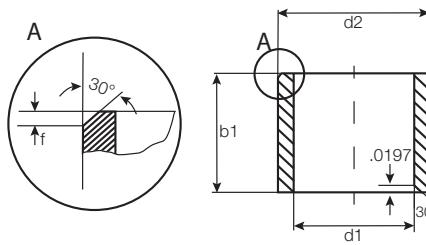
1



inch



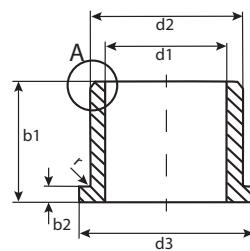
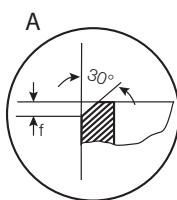
mm

**iglide® Plain Bearings
T500 - Sleeve, Inch**
**iglide® T500
Sleeve - Inch**

**Telephone 1-800-521-2747
1-401-438-7270**

Fax

Internet: <http://www.igus.com>
email: sales@igus.com
QuickSpec: <http://www.igus.com/iglide-quickspec>

Part Number	d1	d2	b1	I.D. After Pressfit		Housing Bore		Shaft Size	
				Max.	Min.	Max.	Min.	Max.	Min.
TSI-1214-06	3/4	7/8	3/8	.7541	.7507	.8755	.8747	.7491	.7479
TSI-1214-08	3/4	7/8	1/2	.7541	.7507	.8755	.8747	.7491	.7479
TSI-1214-12	3/4	7/8	3/4	.7541	.7507	.8755	.8747	.7491	.7479
TSI-1214-16	3/4	7/8	1	.7541	.7507	.8755	.8747	.7491	.7479
TSI-1416-12	7/8	1	3/4	.8791	.8757	1.0005	.9997	.8741	.8729
TSI-1416-16	7/8	1	1	.8791	.8757	1.0005	.9997	.8741	.8729
TSI-1416-24	7/8	1	1 1/2	.8791	.8757	1.0005	.9997	.8741	.8729
TSI-1618-08	1	1 1/8	1/2	1.0041	1.0007	1.1255	1.1247	.9991	.9979
TSI-1618-12	1	1 1/8	3/4	1.0041	1.0007	1.1255	1.1247	.9991	.9979
TSI-1618-16	1	1 1/8	1	1.0041	1.0007	1.1255	1.1247	.9991	.9979
TSI-1618-24	1	1 1/8	1 1/2	1.0041	1.0007	1.1255	1.1247	.9991	.9979
TSI-1820-12	1 1/8	1 9/32	3/4	1.1288	1.1254	1.2818	1.2808	1.1238	1.1226
TSI-2022-10	1 1/4	1 13/32	5/8	1.2548	1.2508	1.4068	1.4058	1.2488	1.2472
TSI-2022-20	1 1/4	1 13/32	1 1/4	1.2548	1.2508	1.4068	1.4058	1.2488	1.2472
TSI-2426-12	1 1/2	1 21/32	3/4	1.5048	1.5008	1.6568	1.6558	1.4988	1.4972
TSI-2426-16	1 1/2	1 21/32	1	1.5048	1.5008	1.6568	1.6558	1.4988	1.4972
TSI-2426-24	1 1/2	1 21/32	1 1/2	1.5048	1.5008	1.6568	1.6558	1.4988	1.4972
TSI-2629-20	1 5/8	1 13/16	1 1/4	1.6297	1.6258	1.7818	1.7808	1.6238	1.6222
TSI-2831-16	1 3/4	1 15/16	1	1.7547	1.7507	1.9381	1.9371	1.7487	1.7471
TSI-3235-24	2	2 3/16	1 1/2	2.0057	2.0011	2.1883	2.1871	1.9981	1.9969
TSI-3235-32	2	2 3/16	2	2.0057	2.0011	2.1883	2.1871	1.9981	1.9969
TSI-3639-32	2 1/4	2 7/16	2	2.2577	2.2531	2.4377	2.4365	2.2507	2.2489
TSI-4447-32	2 3/4	2 15/16	2	2.7570	2.7523	2.9370	2.9358	2.7500	2.7490



For tolerance values
please refer to page 13.4

$r = \text{max. } .0197$

Part Number	d1	d2	b1	d3	b2	I.D. After Pressfit		Housing Bore		Shaft Size	
						Max.	Min.	Max.	Min.	Max.	Min.
TFI-0203-03	1/8	3/16	3/16	.312	.032	.1269	.1251	.1878	.1873	.1243	.1236
TFI-0203-06	1/8	3/16	3/8	.312	.032	.1269	.1251	.1878	.1873	.1243	.1236
TFI-0304-04	3/16	1/4	1/4	.375	.032	.1892	.1873	.2503	.2497	.1865	.1858
TFI-0304-06	3/16	1/4	3/8	.375	.032	.1892	.1873	.2503	.2497	.1865	.1858
TFI-0304-08	3/16	1/4	1/2	.375	.032	.1892	.1873	.2503	.2497	.1865	.1858
TFI-0405-03	1/4	5/16	3/16	.500	.032	.2521	.2498	.3128	.3122	.2490	.2481
TFI-0405-04	1/4	5/16	1/4	.500	.032	.2521	.2498	.3128	.3122	.2490	.2481
TFI-0405-06	1/4	5/16	3/8	.500	.032	.2521	.2498	.3128	.3122	.2490	.2481
TFI-0405-08	1/4	5/16	1/2	.500	.032	.2521	.2498	.3128	.3122	.2490	.2481
TFI-0405-12	1/4	5/16	3/4	.500	.032	.2521	.2498	.3128	.3122	.2490	.2481
TFI-0506-04	5/16	3/8	1/4	.562	.032	.3148	.3125	.3753	.3747	.3115	.3106
TFI-0506-06	5/16	3/8	3/8	.562	.032	.3148	.3125	.3753	.3747	.3115	.3106
TFI-0506-08	5/16	3/8	1/2	.562	.032	.3148	.3125	.3753	.3747	.3115	.3106
TFI-0607-04	3/8	15/32	1/4	.687	.046	.3773	.3750	.4691	.4684	.3740	.3731
TFI-0607-06	3/8	15/32	3/8	.687	.046	.3773	.3750	.4691	.4684	.3740	.3731
TFI-0607-08	3/8	15/32	1/2	.687	.046	.3773	.3750	.4691	.4684	.3740	.3731
TFI-0607-12	3/8	15/32	3/4	.687	.046	.3773	.3750	.4691	.4684	.3740	.3731
TFI-0708-08	7/16	17/32	1/2	.750	.046	.4406	.4379	.5316	.5309	.4365	.4355
TFI-0809-04	1/2	19/32	1/4	.875	.046	.5030	.5003	.5941	.5934	.4990	.4980
TFI-0809-06	1/2	19/32	3/8	.875	.046	.5030	.5003	.5941	.5934	.4990	.4980
TFI-0809-08	1/2	19/32	1/2	.875	.046	.5030	.5003	.5941	.5934	.4990	.4980
TFI-0809-12	1/2	19/32	3/4	.875	.046	.5030	.5003	.5941	.5934	.4990	.4980
TFI-0809-16	1/2	19/32	1	.875	.046	.5030	.5003	.5941	.5934	.4990	.4980
TFI-1011-08	5/8	23/32	1/2	.937	.046	.6280	.6253	.7192	.7184	.6240	.6230
TFI-1011-12	5/8	23/32	3/4	.937	.046	.6280	.6253	.7192	.7184	.6240	.6230
TFI-1011-16	5/8	23/32	1	.937	.046	.6280	.6253	.7192	.7184	.6240	.6230
TFI-1011-24	5/8	23/32	1 1/2	.937	.046	.6280	.6253	.7192	.7184	.6240	.6230
TFI-1214-08	3/4	7/8	1/2	1.125	.062	.7541	.7507	.8755	.8747	.7491	.7479
TFI-1214-12	3/4	7/8	3/4	1.125	.062	.7541	.7507	.8755	.8747	.7491	.7479
TFI-1214-16	3/4	7/8	1	1.125	.062	.7541	.7507	.8755	.8747	.7491	.7479
TFI-1214-28	3/4	7/8	1 3/4	1.125	.062	.7541	.7507	.8755	.8747	.7491	.7479
TFI-1416-12	7/8	1	3/4	1.250	.062	.8791	.8757	1.0005	.9997	.8741	.8729
TFI-1416-16	7/8	1	1	1.250	.062	.8791	.8757	1.0005	.9997	.8741	.8729
TFI-1618-08	1	1 1/8	1/2	1.375	.062	1.0041	1.0007	1.1255	1.1247	.9991	.9979
TFI-1618-12	1	1 1/8	3/4	1.375	.062	1.0041	1.0007	1.1255	1.1247	.9991	.9979
TFI-1618-16	1	1 1/8	1	1.375	.062	1.0041	1.0007	1.1255	1.1247	.9991	.9979
TFI-1618-24	1	1 1/8	1 1/2	1.375	.062	1.0041	1.0007	1.1255	1.1247	.9991	.9979
TFI-1719-06	1 1/16	1 3/16	3/8	1.500	.062	1.0666	1.0633	1.1883	1.1875	1.0616	1.0604
TFI-1820-12	1 1/8	1 9/32	3/4	1.562	.078	1.1288	1.1254	1.2818	1.2808	1.1238	1.1226

iglide® T500
Flange - Inch

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

+
-
1

inch

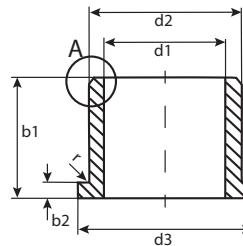
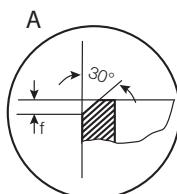
mm

T500

igus®

iglide® Plain Bearings

T500 - Flange, Inch

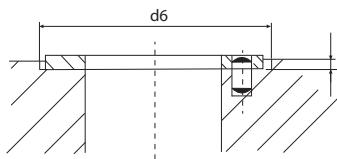
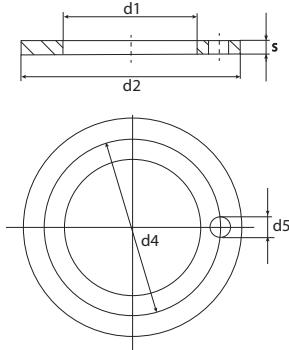
 iglide® T500
 Flange - Inch
 Thrust Washer - MM


For tolerance values
please refer to page 13.4

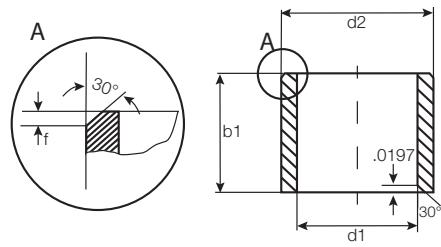
r = max. .0197

 Telephone 1-800-521-2747
 1-401-438-7270
 Fax

iglide® T500 - Plain Bearings Thrust Washer - Inch



Part Number	d1	d2	s	d4	d5	h	d6
	.010	-.010	-.0020	+.005	.015 +.005	+.008	+.005
TTI-0814-01	.500	.875	.0585	.692	.067	.040	.875
TTI-1018-01	.625	1.125	.0585	.880	.099	.040	1.125
TTI-1220-01	.750	1.250	.0585	1.005	.099	.040	1.250
TTI-1422-01	.875	1.375	.0585	1.125	.130	.040	1.375
TTI-1424-01	.875	1.500	.0585	1.192	.130	.040	1.500
TTI-1628-01	1.000	1.750	.0585	1.380	.130	.040	1.750
TTI-1826-01	1.125	1.625	.0585	—	—	.040	1.625
TTI-2034-01	1.250	2.125	.0585	1.692	.161	.040	2.125
TTI-2844-01	1.750	2.750	.0585	2.255	.192	.040	2.750
TTI-3248-01	2.000	3.000	.0895	2.505	.192	.070	3.000



For tolerance values
please refer to page 13.4

Dimensions according to ISO 3547-1 and special dimensions

Part Number	d1	d1-Tolerance	d2	b1	I.D. After Pressfit		Housing Bore		Shaft Size	
	after pressfit in Ø H7			h13	Max.	Min.	Max.	Min.	Max.	Min.
TSM-0203-03	2.0	+0.006 +0.046	3.5	3.0	2.046	2.006	3.580	3.500	2.000	1.975
TSM-0304-03	3.0	+0.006 +0.046	4.5	3.0	3.046	3.006	4.512	4.500	3.000	2.975
TSM-0304-06	3.0	+0.006 +0.046	4.5	6.0	3.046	3.006	4.512	4.500	3.000	2.975
TSM-0405-04	4.0	+0.010 +0.058	5.5	4.0	4.058	4.010	5.512	5.500	4.000	3.970
TSM-0507-035	5.0	+0.010 +0.058	7.0	3.5	5.058	5.010	7.015	7.000	5.000	4.970
TSM-0507-05	5.0	+0.010 +0.058	7.0	5.0	5.058	5.010	7.015	7.000	5.000	4.970
TSM-0507-08	5.0	+0.010 +0.058	7.0	8.0	5.058	5.010	7.015	7.000	5.000	4.970
TSM-0608-06	6.0	+0.010 +0.058	8.0	6.0	6.058	6.010	8.015	8.000	6.000	5.970
TSM-0608-08	6.0	+0.010 +0.058	8.0	8.0	6.058	6.010	8.015	8.000	6.000	5.970
TSM-0608-10	6.0	+0.010 +0.058	8.0	10.0	6.058	6.010	8.015	8.000	6.000	5.970
TSM-0608-13	6.0	+0.010 +0.058	8.0	13.0	6.058	6.010	8.015	8.000	6.000	5.970
TSM-0610-08	6.0	+0.010 +0.058	10.0	8.0	6.058	6.010	10.015	10.000	6.000	5.970
TSM-0610-20	6.0	+0.010 +0.058	10.0	20.0	6.058	6.010	10.015	10.000	6.000	5.970
TSM-0709-10	7.0	+0.013 +0.071	9.0	10.0	7.071	7.013	9.015	9.000	7.000	6.964
TSM-0709-12	7.0	+0.013 +0.071	9.0	12.0	7.071	7.013	9.015	9.000	7.000	6.964
TSM-0810-06	8.0	+0.013 +0.071	10.0	6.0	8.071	8.013	10.015	10.000	8.000	7.984
TSM-0810-08	8.0	+0.013 +0.071	10.0	8.0	8.071	8.013	10.015	10.000	8.000	7.964
TSM-0810-10	8.0	+0.013 +0.071	10.0	10.0	8.071	8.013	10.015	10.000	8.000	7.964
TSM-0810-15	8.0	+0.013 +0.071	10.0	15.0	8.071	8.013	10.015	10.000	8.000	7.964
TSM-1012-06	10.0	+0.013 +0.071	12.0	6.0	10.071	10.013	12.018	12.000	10.000	9.964
TSM-1012-08	10.0	+0.013 +0.071	12.0	8.0	10.071	10.013	12.018	12.000	10.000	9.964
TSM-1012-10	10.0	+0.013 +0.071	12.0	10.0	10.071	10.013	12.018	12.000	10.000	9.964
TSM-1012-12	10.0	+0.013 +0.071	12.0	12.0	10.071	10.013	12.018	12.000	10.000	9.964
TSM-1012-20	10.0	+0.013 +0.071	12.0	20.0	10.071	10.013	12.018	12.000	10.000	9.964
TSM-1214-035	12.0	+0.016 +0.086	14.0	3.5	12.086	12.016	14.018	14.000	12.000	11.957
TSM-1214-06	12.0	+0.016 +0.086	14.0	6.0	12.086	12.016	14.018	14.000	12.000	11.957
TSM-1214-08	12.0	+0.016 +0.086	14.0	8.0	12.086	12.016	14.018	14.000	12.000	11.957
TSM-1214-10	12.0	+0.016 +0.086	14.0	10.0	12.086	12.016	14.018	14.000	12.000	11.957
TSM-1214-12	12.0	+0.016 +0.086	14.0	12.0	12.086	12.016	14.018	14.000	12.000	11.957
TSM-1214-15	12.0	+0.016 +0.086	14.0	15.0	12.086	12.016	14.018	14.000	12.000	11.957
TSM-1214-20	12.0	+0.016 +0.086	14.0	20.0	12.086	12.016	14.018	14.000	12.000	11.957
TSM-1416-12	14.0	+0.016 +0.086	16.0	12.0	14.086	14.016	16.018	16.000	14.000	13.957
TSM-1416-15	14.0	+0.016 +0.086	16.0	15.0	14.086	14.016	16.018	16.000	14.000	13.957
TSM-1416-20	14.0	+0.016 +0.086	16.0	20.0	14.086	14.016	16.018	16.000	14.000	13.957
TSM-1517-15	15.0	+0.016 +0.086	17.0	15.0	15.086	15.016	17.018	17.000	15.000	14.957
TSM-1517-20	15.0	+0.016 +0.086	17.0	20.0	15.086	15.016	17.018	17.000	15.000	14.957

iglide® T500
Sleeve - MM

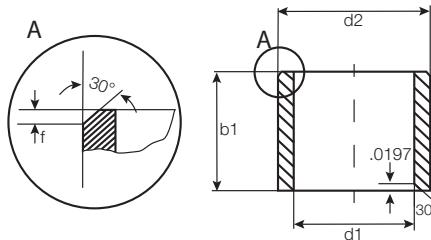
PDF: www.igus.com/iglide-pdfs
CAD: www.igus.com/iglide-CAD
RoHS info: www.igus.com/RoHS

+

1

inch

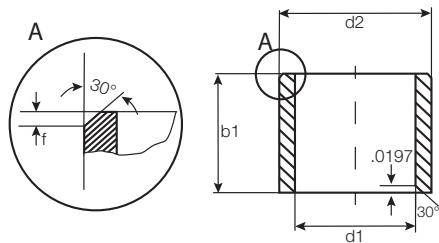
mm



For tolerance values
please refer to page 13.4

Dimensions according to ISO 3547-1 and special dimensions

Part Number	d1	d1-Tolerance after pressfit in Ø H7	d2	b1 h13	I.D. After Pressfit		Housing Bore		Shaft Size	
					Max.	Min.	Max.	Min.	Max.	Min.
TSM-1618-10	16.0	+0.016 +0.086	18.0	10.0	16.086	16.016	18.018	18.000	16.000	15.957
TSM-1618-12	16.0	+0.016 +0.086	18.0	12.0	16.086	16.016	18.018	18.000	16.000	15.957
TSM-1618-15	16.0	+0.016 +0.086	18.0	15.0	16.086	16.016	18.018	18.000	16.000	15.957
TSM-1618-20	16.0	+0.016 +0.086	18.0	20.0	16.086	16.016	18.018	18.000	16.000	15.957
TSM-1618-35	16.0	+0.016 +0.086	18.0	35.0	16.086	16.016	18.018	18.000	16.000	15.957
TSM-1719-20	17.0	+0.016 +0.086	19.0	20.0	17.086	17.016	19.021	19.000	17.000	16.957
TSM-1820-15	18.0	+0.016 +0.086	20.0	15.0	18.086	18.016	20.021	20.000	18.000	17.957
TSM-1820-20	18.0	+0.016 +0.086	20.0	20.0	18.086	18.016	20.021	20.000	18.000	17.957
TSM-2022-14	20.0	+0.020 +0.104	22.0	14.0	20.104	20.020	22.021	22.000	20.000	19.948
TSM-2022-18	20.0	+0.020 +0.104	22.0	18.0	20.104	20.020	22.021	22.000	20.000	19.948
TSM-2022-20	20.0	+0.020 +0.104	22.0	20.0	20.104	20.020	22.021	22.000	20.000	19.948
TSM-2023-07	20.0	+0.020 +0.104	23.0	7.0	20.104	20.020	23.021	23.000	20.000	19.948
TSM-2023-10	20.0	+0.020 +0.104	23.0	10.0	20.101	20.020	23.021	23.000	20.000	19.948
TSM-2023-15	20.0	+0.020 +0.104	23.0	15.0	20.104	20.020	23.021	23.000	20.000	19.948
TSM-2023-20	20.0	+0.020 +0.104	23.0	20.0	20.104	20.020	23.021	23.000	20.000	19.948
TSM-2023-25	20.0	+0.020 +0.104	23.0	25.0	20.104	20.020	23.021	23.000	20.000	19.948
TSM-2023-30	20.0	+0.020 +0.104	23.0	30.0	20.104	20.020	23.021	23.000	20.000	19.948
TSM-2225-15	22.0	+0.020 +0.104	25.0	15.0	22.104	22.020	25.021	25.000	22.000	21.948
TSM-2225-20	22.0	+0.020 +0.104	25.0	20.0	22.104	22.020	25.021	25.000	22.000	21.948
TSM-2426-20	24.0	+0.020 +0.104	26.0	20.0	24.104	24.020	26.021	26.000	24.000	23.948
TSM-2427-20	24.0	+0.020 +0.104	27.0	20.0	24.104	24.020	27.021	27.000	24.000	23.948
TSM-2528-09	25.0	+0.020 +0.104	28.0	9.0	25.104	25.020	28.021	28.000	25.000	24.948
TSM-2528-12	25.0	+0.020 +0.104	28.0	12.0	25.104	25.020	28.021	28.000	25.000	24.948
TSM-2528-13	25.0	+0.020 +0.104	28.0	13.0	25.104	25.020	28.021	28.000	25.000	24.948
TSM-2528-15	25.0	+0.020 +0.104	28.0	15.0	25.104	25.020	28.021	28.000	25.000	24.948
TSM-2528-20	25.0	+0.020 +0.104	28.0	20.0	25.104	25.020	28.021	28.000	25.000	24.948
TSM-2528-30	25.0	+0.020 +0.104	28.0	30.0	25.104	25.020	28.021	28.000	25.000	24.948
TSM-2730-05	27.0	+0.020 +0.104	30.0	5.7	27.104	27.020	30.021	30.000	27.000	26.948
TSM-2832-20	28.0	+0.020 +0.104	32.0	20.0	28.104	28.020	32.025	32.000	28.000	27.948
TSM-2832-30	28.0	+0.020 +0.104	32.0	30.0	28.104	28.020	32.025	32.000	28.000	27.948
TSM-3034-20	30.0	+0.020 +0.104	34.0	20.0	30.104	30.020	34.025	34.000	30.000	29.948
TSM-3034-25	30.0	+0.020 +0.104	34.0	25.0	30.104	30.020	34.025	34.000	30.000	29.948
TSM-3034-30	30.0	+0.020 +0.104	34.0	30.0	30.104	30.020	34.025	34.000	30.000	29.948
TSM-3034-40	30.0	+0.020 +0.104	34.0	40.0	30.104	30.020	34.025	34.000	30.000	29.948
TSM-3236-25	32.0	+0.025 +0.125	36.0	25.0	32.125	32.025	36.025	36.000	32.000	31.938
TSM-3236-30	32.0	+0.025 +0.125	36.0	30.0	32.125	32.025	36.025	36.000	32.000	31.938
TSM-3539-20	35.0	+0.025 +0.125	39.0	20.0	35.125	35.025	39.025	39.000	35.000	34.938
TSM-3539-30	35.0	+0.025 +0.125	39.0	30.0	35.125	35.025	39.025	39.000	35.000	34.938



For tolerance values
please refer to page 13.4

Dimensions according to ISO 3547-1 and special dimensions

Part Number	d1	d1-Tolerance	d2	b1	I.D. After Pressfit		Housing Bore		Shaft Size	
	after pressfit in Ø H7			h13	Max.	Min.	Max.	Min.	Max.	Min.
TSM-3539-40	35.0	+0.025 +0.125	39.0	40.0	35.125	35.025	39.025	39.000	35.000	34.938
TSM-3539-50	35.0	+0.025 +0.125	39.0	50.0	35.125	35.025	39.025	39.000	35.000	34.938
TSM-4044-30	40.0	+0.025 +0.125	44.0	30.0	40.125	40.025	44.025	44.000	40.000	39.938
TSM-4044-40	40.0	+0.025 +0.125	44.0	40.0	40.125	40.025	44.025	44.000	40.000	39.938
TSM-4044-50	40.0	+0.025 +0.125	44.0	50.0	40.125	40.025	44.025	44.000	40.000	39.938
TSM-4550-50	45.0	+0.025 +0.125	50.0	50.0	45.125	45.025	50.025	50.000	45.000	44.938
TSM-5055-30	50.0	+0.025 +0.125	55.0	30.0	50.125	50.025	55.030	55.000	50.000	49.938
TSM-5055-40	50.0	+0.025 +0.125	55.0	40.0	50.125	50.025	55.030	55.000	50.000	49.938
TSM-5055-60	50.0	+0.025 +0.125	55.0	60.0	50.125	50.025	55.030	55.000	50.000	49.938
TSM-5560-50	55.0	+0.030 +0.150	60.0	50.0	55.150	55.030	60.030	60.000	55.000	54.926
TSM-6065-45	60.0	+0.030 +0.150	65.0	45.0	60.150	60.030	65.030	65.000	60.000	59.926
TSM-6065-60	60.0	+0.030 +0.150	65.0	60.0	60.150	60.030	65.030	65.000	60.000	59.926
TSM-6570-50	65.0	+0.030 +0.150	70.0	50.0	65.150	65.030	70.030	70.000	65.000	64.926
TSM-7075-70	70.0	+0.030 +0.150	75.0	70.0	70.150	70.030	75.030	75.000	70.000	69.926

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

+

I

1.

inch

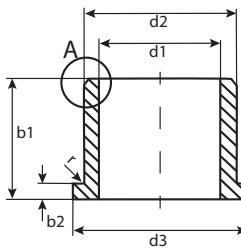
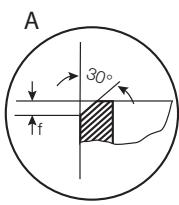
mm

T500

iglide® Plain Bearings T500 - Flange, MM

 iglide® T500
Flange - MM

 Telephone 1-800-521-2747
Fax 1-401-438-7270

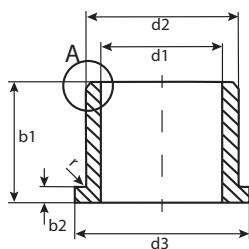
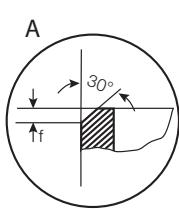
 Internet: <http://www.igus.com>
 email: sales@igus.com
 QuickSpec: <http://www.igus.com/iglide-quickspec>


For tolerance values
please refer to page 13.4

r = max. 0.5

Dimensions according to ISO 3547-1 and special dimensions

Part Number	d1 ¹⁾	d1-Tolerance After Pressfit in Ø H7	d2	d3 d13	b1 h13	b2 -0.14	I.D. After Pressfit	Housing Bore	Shaft Size	
							Max.	Min.	Max.	Min.
TFM-0304-05	3.0	+0.006 +0.046	4.5	7.5	5.0	0.75	3.046	3.006	4.512	4.500
TFM-0405-04	4.0	+0.010 +0.058	5.5	9.5	4.0	0.75	4.058	4.010	5.512	5.500
TFM-0405-06	4.0	+0.010 +0.058	5.5	9.5	6.0	0.75	4.058	4.010	5.512	5.500
TFM-040508-06	4.0	+0.010 +0.058	5.5	8.0	6.0	0.75	4.058	4.010	5.512	5.500
TFM-0507-05	5.0	+0.010 +0.058	7.0	11.0	5.0	1.0	5.058	5.010	7.015	7.000
TFM-0608-08	6.0	+0.010 +0.058	8.0	12.0	8.0	1.0	6.058	6.010	8.015	8.000
TFM-0608-10	6.0	+0.010 +0.058	8.0	12.0	10.0	1.0	6.058	6.010	8.015	8.000
TFM-060812-20	6.0	+0.010 +0.058	8.0	12.0	20.0	1.0	6.058	6.010	8.015	8.000
TFM-081012-04	8.0	+0.013 +0.071	10.0	12.0	4.0	1.0	8.071	8.013	10.015	10.000
TFM-0810-05	8.0	+0.013 +0.071	10.0	15.0	5.0	1.0	8.071	8.013	10.015	10.000
TFM-0810-075	8.0	+0.013 +0.071	10.0	15.0	7.5	1.0	8.071	8.013	10.015	10.000
TFM-0810-08	8.0	+0.013 +0.071	10.0	15.0	8.0	1.0	8.071	8.013	10.015	10.000
TFM-0810-09	8.0	+0.013 +0.071	10.0	15.0	9.0	1.0	8.071	8.013	10.015	10.000
TFM-081117-05	8.0	+0.013 +0.071	11.0	17.0	5.0	1.5	8.071	8.013	11.015	11.000
TFM-1012-06	10.0	+0.013 +0.071	12.0	18.0	6.0	1.0	10.071	10.013	12.018	12.000
TFM-1012-08	10.0	+0.013 +0.071	12.0	15.0	8.0	1.0	10.071	10.013	12.018	12.000
TFM-1012-09	10.0	+0.013 +0.071	12.0	18.0	9.0	1.0	10.071	10.013	12.018	12.000
TFM-1012-15	10.0	+0.013 +0.071	12.0	18.0	15.0	1.0	10.071	10.013	12.018	12.000
TFM-1012-18	10.0	+0.013 +0.071	12.0	18.0	18.0	1.0	10.071	10.013	12.018	12.000
TFM-1012-22	10.0	+0.013 +0.071	12.0	18.0	22.0	1.0	10.071	10.013	12.018	12.000
TFM-1214-05	12.0	+0.016 +0.086	14.0	20.0	5.5	1.0	12.086	12.016	14.018	14.000
TFM-1214-09	12.0	+0.016 +0.086	14.0	20.0	9.0	1.0	12.086	12.016	14.018	14.000
TFM-1214-12	12.0	+0.016 +0.086	14.0	20.0	12.0	1.0	12.086	12.016	14.018	14.000
TFM-1214-15	12.0	+0.016 +0.086	14.0	20.0	15.0	1.0	12.086	12.016	14.018	14.000
TFM-1416-10	14.0	+0.016 +0.086	16.0	22.0	10.0	1.0	14.086	14.016	16.018	16.000
TFM-1416-12	14.0	+0.016 +0.086	16.0	22.0	12.0	1.0	14.086	14.016	16.018	16.000
TFM-1416-17	14.0	+0.016 +0.086	16.0	22.0	17.0	1.0	14.086	14.016	16.018	16.000
TFM-1517-12	15.0	+0.016 +0.086	17.0	23.0	12.0	1.0	15.086	15.016	17.018	17.000
TFM-1517-17	15.0	+0.016 +0.086	17.0	23.0	17.0	1.0	15.086	15.016	17.018	17.000
TFM-1618-12	16.0	+0.016 +0.086	18.0	24.0	12.0	1.0	16.086	16.016	18.018	18.000
TFM-1618-17	16.0	+0.016 +0.086	18.0	24.0	17.0	1.0	16.086	16.016	18.018	18.000
TFM-1820-12	18.0	+0.016 +0.086	20.0	26.0	12.0	1.0	18.086	18.016	20.021	20.000
TFM-1820-17	18.0	+0.016 +0.086	20.0	26.0	17.0	1.0	18.086	18.016	20.021	20.000
TFM-2023-075	20.0	+0.020 +0.104	23.0	30.0	7.5	1.5	20.104	20.020	23.021	23.000
TFM-2023-11	20.0	+0.020 +0.104	23.0	30.0	11.0	1.5	20.104	20.020	23.021	23.000
TFM-2023-16	20.0	+0.020 +0.104	23.0	30.0	16.0	1.5	20.104	20.020	23.021	23.000
TFM-2023-21	20.0	+0.020 +0.104	23.0	30.0	21.0	1.5	20.104	20.020	23.021	23.000
TFM-252833-08	25.0	+0.020 +0.104	28.0	33.0	8.0	1.5	25.104	25.020	28.021	28.000
TFM-2528-13	25.0	+0.020 +0.104	28.0	35.0	13.5	1.5	25.104	25.020	28.021	28.000
TFM-2528-21	25.0	+0.020 +0.104	28.0	35.0	21.0	1.5	25.104	25.020	28.021	28.000



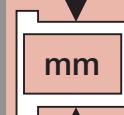
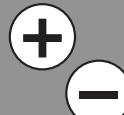
For tolerance values
please refer to page 13.4

r = max. 0.5

Dimensions according to ISO 3547-1 and special dimensions

Part Number	d1 ¹⁾	d1-Tolerance After Pressfit in Ø H7	d2	d3 d13	b1 h13	b2 -0.14	I.D. After Pressfit	Housing Bore	Shaft Size
							Max. Min.	Max. Min.	Max. Min.
TFM-2730-20	27.0	+0.020 +0.104	30.0	38.0	20.0	1.5	27.104 27.020	30.021 30.000	27.000 26.948
TFM-2834-44	28.0	+0.020 +0.104	34.0	42.0	44.0	2.0	28.104 28.020	34.021 34.000	28.000 27.948
TFM-3034-16	30.0	+0.020 +0.104	34.0	42.0	16.0	2.0	30.104 30.020	34.025 34.000	30.000 29.948
TFM-3034-26	30.0	+0.020 +0.104	34.0	42.0	26.0	2.0	30.104 30.020	34.025 34.000	30.000 29.948
TFM-3034-40	30.0	+0.020 +0.104	34.0	42.0	40.0	2.0	30.104 30.020	34.025 34.000	30.000 29.948
TFM-3236-15	32.0	+0.025 +0.125	36.0	45.0	15.0	2.0	32.125 32.025	36.025 36.000	32.000 31.938
TFM-3236-26	32.0	+0.025 +0.125	36.0	45.0	26.0	2.0	32.125 32.025	36.025 36.000	32.000 31.938
TFM-3539-26	35.0	+0.025 +0.125	39.0	47.0	26.0	2.0	35.125 35.025	39.025 39.000	35.000 34.938
TFM-4044-22	40.0	+0.025 +0.125	44.0	52.0	22.0	2.0	40.125 40.025	44.025 44.000	40.000 39.938
TFM-4044-30	40.0	+0.025 +0.125	44.0	52.0	30.0	2.0	40.125 40.025	44.025 44.000	40.000 39.938
TFM-4044-40	40.0	+0.025 +0.125	44.0	52.0	40.0	2.0	40.125 40.025	44.025 44.000	40.000 39.938
TFM-4550-50	45.0	+0.025 +0.125	50.0	58.0	50.0	2.0	45.125 45.025	50.025 50.000	45.000 44.938
TFM-5055-40	50.0	+0.025 +0.125	55.0	63.0	40.0	2.0	50.125 50.025	55.030 55.000	50.000 49.938
TFM-6065-40	60.0	+0.030 +0.150	65.0	73.0	40.0	2.0	60.150 60.030	65.030 65.000	60.000 59.926
TFM-7075-40	70.0	+0.030 +0.150	75.0	83.0	40.0	2.0	70.150 70.030	75.030 75.000	70.000 69.926
TFM-7580-50	75.0	+0.030 +0.150	80.0	88.0	50.0	2.0	75.150 75.030	80.030 80.000	75.000 74.926

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

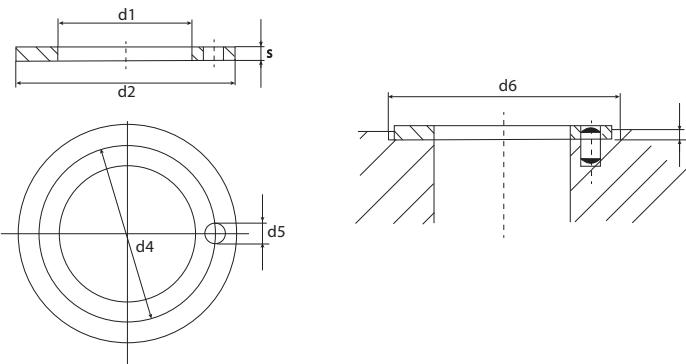


T500

iglide® Plain Bearings T500 - Thrust Washer, MM

iglide® T500

Thrust Washer - MM



Dimensions according to ISO 3547-1 and special dimensions

Part Number	d1 +0,25	d2 -0,25	s -0,05	d4 -0,12 +0,12	d5 +0,375 +0,125	h +0,2 -0,2	d6 +0,12
TTM-0620-015	6.0	20.0	1.5	13.0	1.5	1.0	20.0
TTM-0818-015	8.0	18.0	1.5	13.0	1.5	1.0	18.0
TTM-1018-010	10.0	18.0	1.0	**	**	.7	18.0
TTM-1224-015	12.0	24.0	1.5	18.0	1.5	1.0	24.0
TTM-1426-015	14.0	26.0	1.5	20.0	2.0	1.0	26.0
TTM-1524-015	15.0	24.0	1.5	19.5	1.5	1.0	24.0
TTM-1630-015	16.0	30.0	1.5	22.0	2.0	1.0	30.0
TTM-1832-015	18.0	32.0	1.5	25.0	2.0	1.0	32.0
TTM-2036-015	20.0	36.0	1.5	28.0	3.0	1.0	36.0
TTM-2238-015	22.0	38.0	1.5	30.0	3.0	1.0	38.0
TTM-2442-015	24.0	42.0	1.5	33.0	3.0	1.0	42.0
TTM-2644-015	26.0	44.0	1.5	35.0	3.0	1.0	44.0
TTM-2848-015	28.0	48.0	1.5	38.0	4.0	1.0	48.0
TTM-3254-015	32.0	54.0	1.5	43.0	4.0	1.0	54.0
TTM-3862-015	38.0	62.0	1.5	50.0	4.0	1.0	62.0
TTM-4266-015	42.0	66.0	1.5	84.0	4.0	1.0	66.0
TTM-4874-020	48.0	74.0	2.0	61.0	4.0	1.5	74.0
TTM-5278-020	52.0	78.0	2.0	65.0	4.0	1.5	78.0
TTM-6290-020	62.0	90.0	2.0	76.0	4.0	1.5	90.0

** Designed without fixing bore