

## Excellent vibration dampening: Thick and Tough – iglidur® M250



Over 450 sizes available from stock

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Excellent vibration dampening

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Resistant to edge loading

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High impact resistance

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Thick walled according to DIN 1850

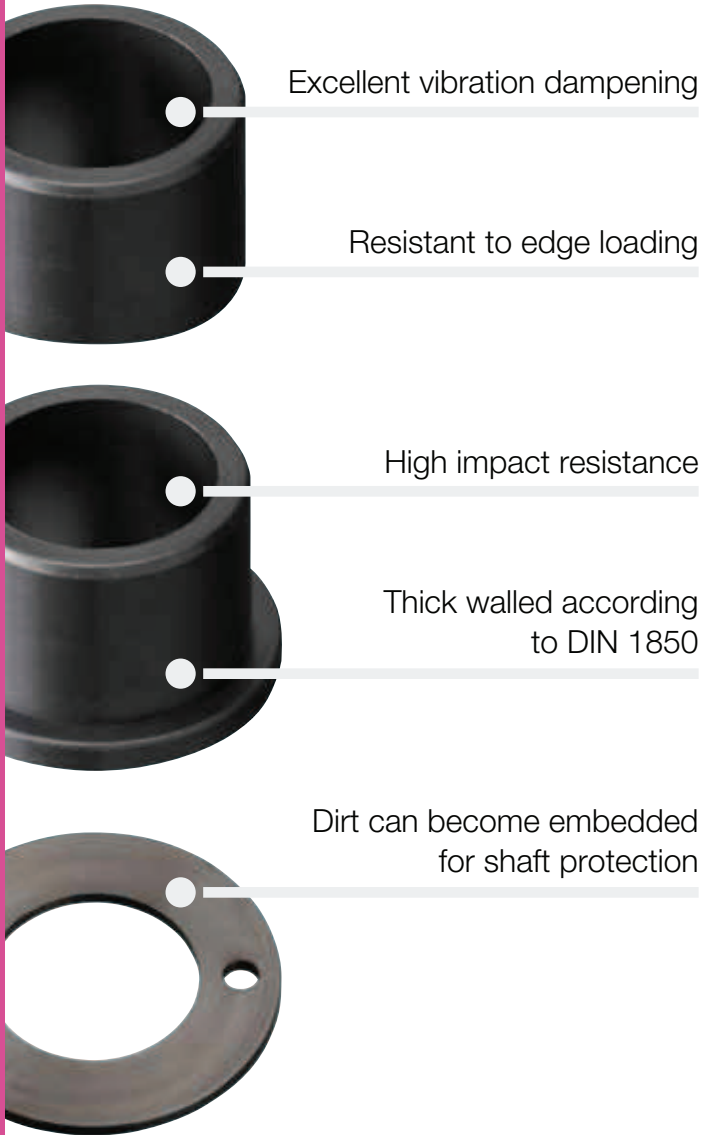
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Dirt can become embedded for shaft protection

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# iglidur® M250 | Thick and Tough

**Excellent vibration dampening.** The self-lubricating plain bearings made of iglidur® M250 are defined by their impact strength, vibration dampening, and wear resistant properties. They excel in applications in which vibration dampening is necessary, for example, in fitness and packaging machines.



## When to use it?

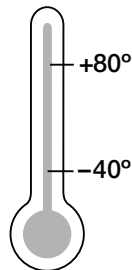
- When the bearings are exposed to high amounts of dirt
- When high vibration damping is necessary
- For low to average speeds
- When mechanical reaming of the wall surface is necessary
- Resistant to edge loads
- High impact resistance
- Thick-walled according to DIN 1850



## When not to use it?

- For applications in wet areas
  - ▶ iglidur® H, page 353
- When very high precision is necessary
  - ▶ iglidur® P, page 195
- For very smooth shafts
  - ▶ iglidur® J, page 109
- When a cost-effective wear resistant bearing is desired
  - ▶ iglidur® R, page 277

## Temperature



## Product range

3 types  
> 450 dimensions  
Ø 1–75 mm



# iglidur® M250 | Application Examples



## Typical sectors of industry and application areas

- Agricultural industry
- Furniture/industrial design
- Textile technology ● Doors and gates
- Machine building etc.

Improve technology and reduce costs –  
310 exciting examples for iglidur® plain bearings online

► [www.igus.eu/iglidur-applications](http://www.igus.eu/iglidur-applications)



► [www.igus.eu/waterpump](http://www.igus.eu/waterpump)



► [www.igus.eu/lawnmover](http://www.igus.eu/lawnmover)



► [www.igus.eu/camerajib](http://www.igus.eu/camerajib)



► [www.igus.eu/drilling-machine](http://www.igus.eu/drilling-machine)

Material properties table			
General properties	Unit	iglidur® M250	Testing method
Density	g/cm <sup>3</sup>	1.14	
Colour		charcoal	
Max. moisture absorption at +23 °C/50% r.h.	% weight	1.4	DIN 53495
Max. water absorption	% weight	7.6	
Coefficient of sliding friction, dynamic against steel	μ	0.18–0.40	
pv value, max. (dry)	MPa · m/s	0.12	
Mechanical properties			
Modulus of elasticity	MPa	2,700	DIN 53457
Tensile strength at +20 °C	MPa	112	DIN 53452
Compressive strength	MPa	52	
Max. recommended surface pressure (+20 °C)	MPa	20	
Shore D hardness		79	DIN 53505
Physical and thermal properties			
Max. long term application temperature	°C	+80	
Max. short term application temperature	°C	+170	
Min. application temperature	°C	-40	
Thermal conductivity	W/m · K	0.24	ASTM C 177
Coefficient of thermal expansion (at +23 °C)	K <sup>-1</sup> · 10 <sup>-5</sup>	10	DIN 53752
Electrical properties			
Specific volume resistance	Ωcm	> 10 <sup>13</sup>	DIN IEC 93
Surface resistance	Ω	> 10 <sup>11</sup>	DIN 53482

Table 01: Material properties table

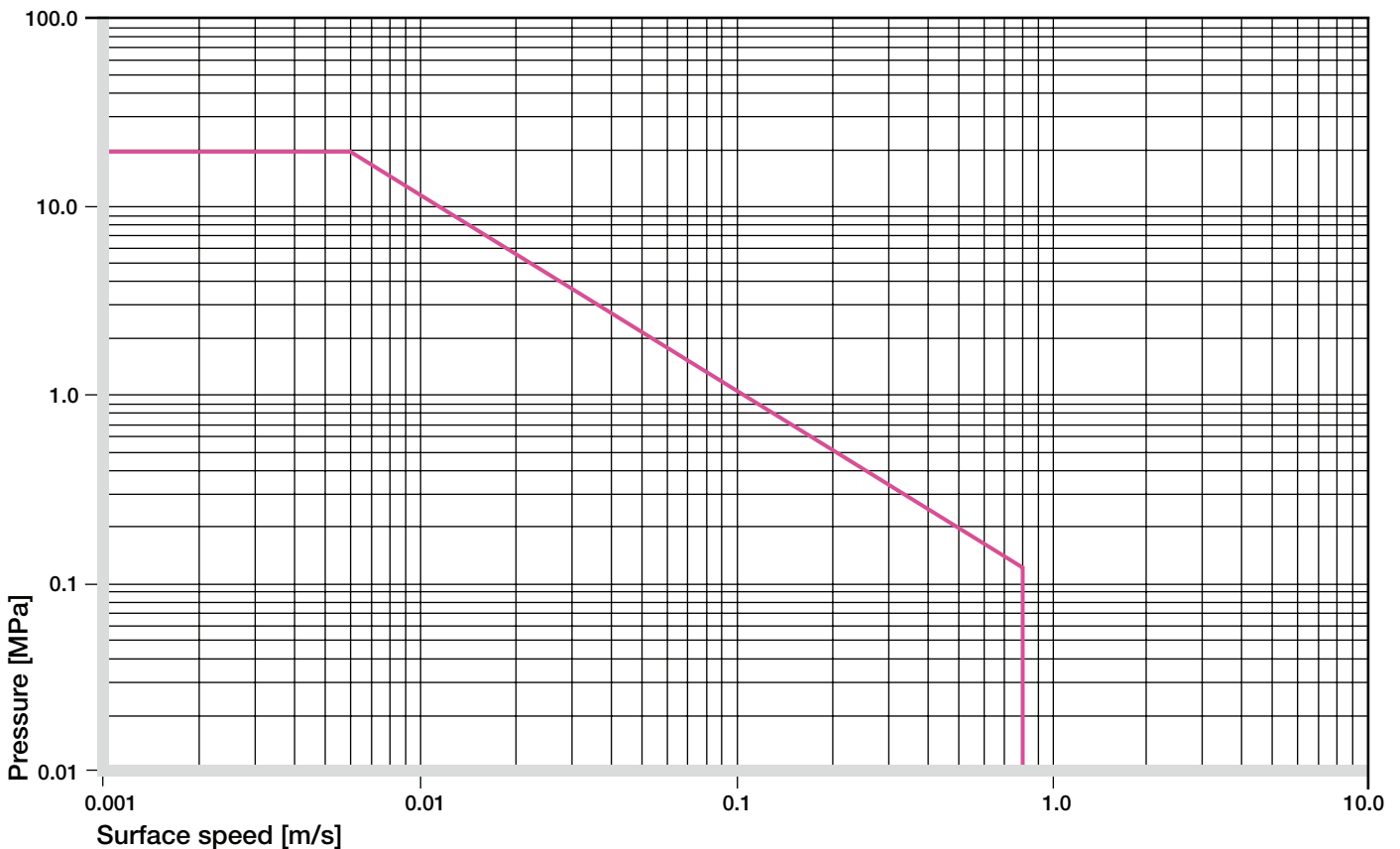
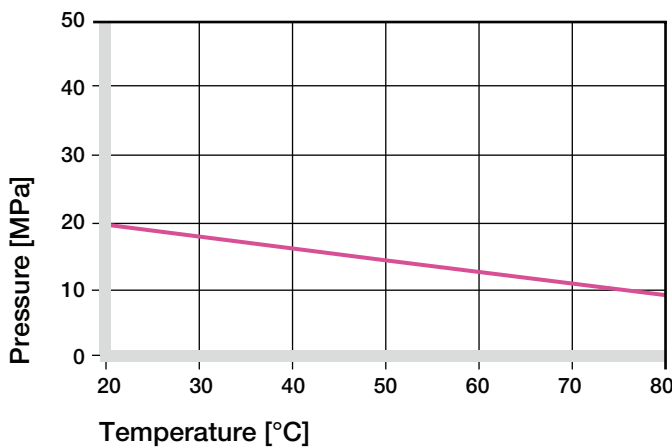


Diagram 01: Permissible pv values for iglidur® M250 with a wall thickness of 1 mm dry running against a steel shaft at +20 °C, mounted in a steel housing

The self lubricating plain bearings made of iglidur® M250 are defined by their impact strength, vibration dampening, and wear resistant properties. They excel in applications in which vibration dampening is necessary, for example, in fitness and packaging machines. Since they are additionally able to absorb dirt, they are also suited for agricultural machines and garden appliances.

## Mechanical Properties

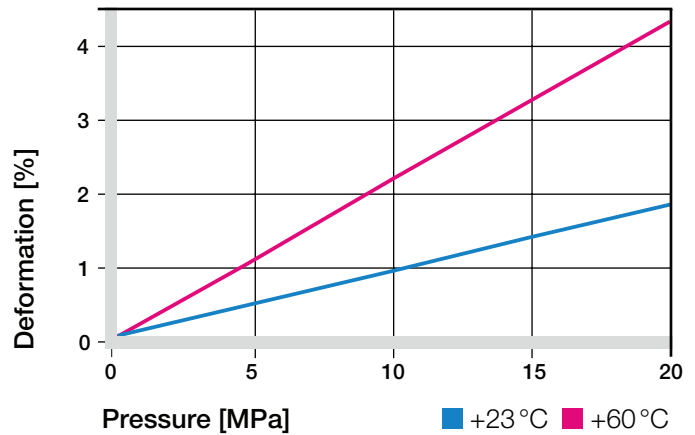
With increasing temperatures, the compressive strength of iglidur® M250 plain bearings decreases. The Diagram 02 shows this inverse relationship. However, at the longterm maximum temperature of +80 °C the permissible surface pressure is almost 10 MPa. The recommended maximum surface pressure is a mechanical material parameter. No conclusions regarding the tribological properties can be drawn from this.



**Diagram 02: Recommended maximum surface pressure as a function of temperature (20 MPa at +20 °C)**

iglidur® M250 bearings can withstand radial loads of a maximum 20 MPa. The material deformation is below 2 % at room temperature. Compared with other iglidur® materials iglidur® M250 bearings are highly elastic. By this elasticity, they are able to yield very well, but retain their original shape again. A plastic deformation is minimal up to the permissible surface pressure.

► Surface Pressure, [page 63](#)



**Diagram 03: Deformation under pressure and temperature**

## Permissible Surface Speeds

As standard, iglidur® M250 is manufactured as a thick walled bearing. iglidur® M250 is best suited for low to medium surface speeds. The maximum permissible speed for dry running applications is 0.8 m/s (rotating) or 2.5 m/s (linear). In practice, though, this temperature level is rarely reached, due to varying application conditions.

► Surface Speed, [page 65](#)

m/s	Rotating	Oscillating	Linear
Continuous	0.8	0.6	2.5
Short term	2	1.4	5

**Table 02: Maximum running speed**

## Temperatures

The maximum permissible short term temperature is +170 °C. However iglidur® M250 plain bearings may only be exposed to this temperature without any additional load. The long term permissible application temperature is +80 °C. This is also the point of the wear limit, i.e. the temperature over which the wear increases exponentially.

► Application Temperatures, [page 66](#)

iglidur® M250	Application temperature
Minimum	-40 °C
Max. long term	+80 °C
Max. short term	+170 °C
Add. securing is required from	+60 °C

**Table 03: Temperature limits**

## Friction and Wear

The coefficient of friction  $\mu$  of a plain bearing among other factors is influenced by the surface speed and the load. If the load stays constant, then the coefficient of friction increases with increasing speed (see Diagram 04).

On the other hand, an increase in load at constant speed can result in a reduction in the coefficient of friction (see Diagram 05).

- ▶ Coefficients of Friction and Surfaces, **page 68**
- ▶ Wear Resistance, **page 69**

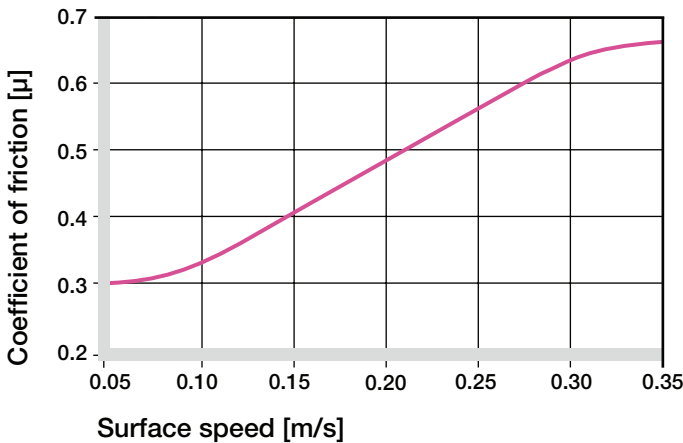


Diagram 04: Coefficient of friction as a function of the running speed,  $p = 0.75$  MPa

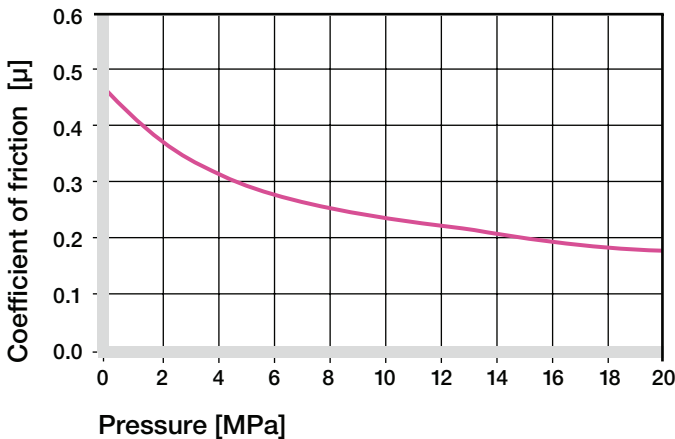


Diagram 05: Coefficient of friction as a function of the pressure,  $v = 0.01$  m/s

## Shaft Materials

Friction and wear are also greatly dependent on the surface of the shaft. If you observe the coefficient of friction, then the ideal shaft surface finish for iglidur® M250 bearings is  $R_a = 0.6$   $\mu\text{m}$  (Diagram 06).

Diagrams 07 to 09 show results of testing different shaft materials with plain bearings made of iglidur® M250. Up to loads of 2 MPa the shaft material plays a relatively small role for rotational movements. Diagram 07 best illustrates which shaft materials are best suited for smaller loads. If the load increases, the wear of a bearing clearly increases. Therefore, a suitable shaft material must be considered for higher loads. These are hardened shafts, such as cold-rolled steel or hard chromed shafts. Diagram 09 makes it clear that iglidur® M250 is considerably better for rotational than for oscillating operation. However, it must be mentioned that in oscillating movements, often the vibrations acting on the bearing are especially high. Here, iglidur® M250 can utilise its special dampening properties. In our test, these vibrations are excluded so that the comparison between rotation and oscillating operation is captured first.

- ▶ Shaft Materials, **page 71**

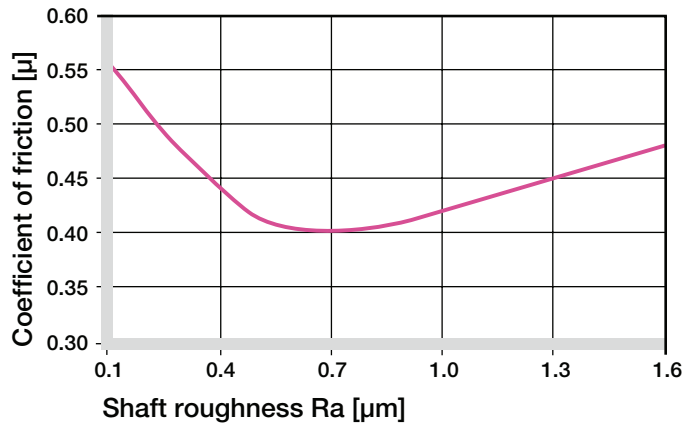


Diagram 06: Coefficient of friction as function of the shaft surface (Cf53 hardened and ground steel)

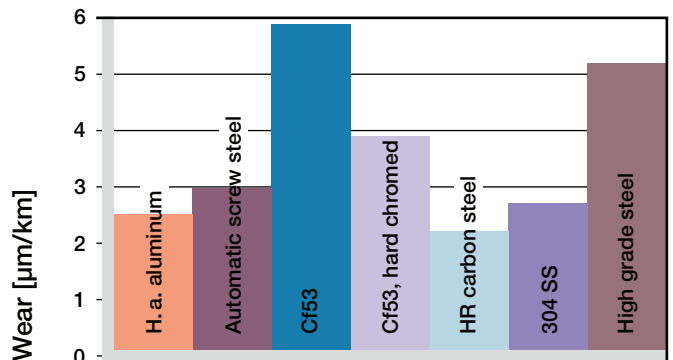


Diagram 07: Wear, rotating with different shaft materials, pressure  $p = 1$  MPa,  $v = 0.3$  m/s

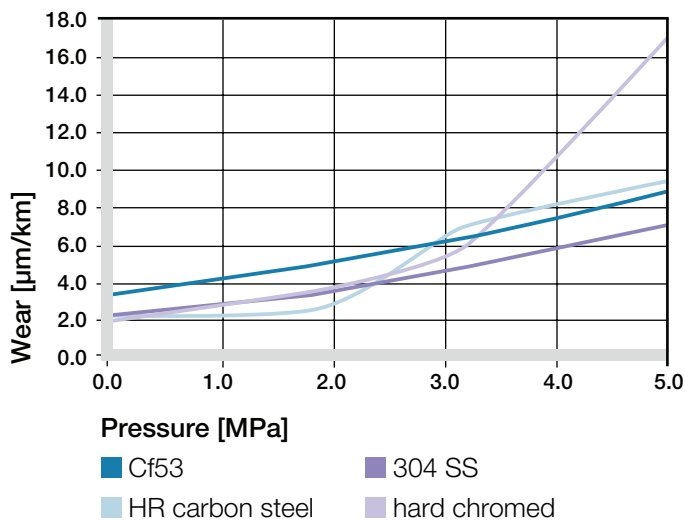


Diagram 08: Wear with different shaft materials in rotational operation, as a function of the pressure

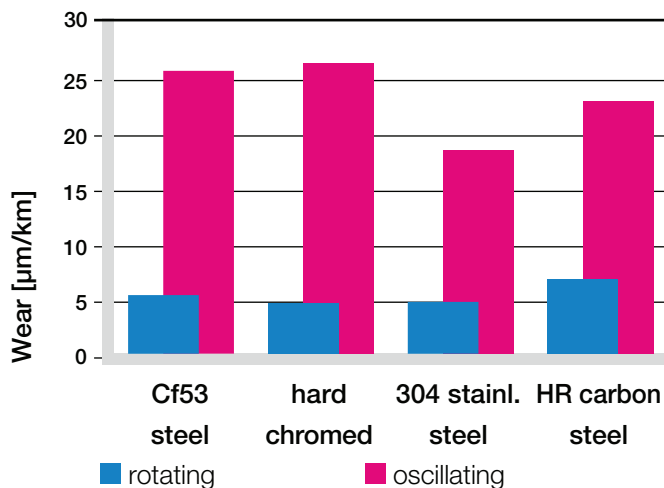


Diagram 09: Wear for rotating and oscillating applications with different shaft materials, p = 2 MPa

iglidur® M250	Dry	Greases	Oil	Water
C.o.f. $\mu$	0.18–0.40	0.09	0.04	0.04

Table 04: Coefficient of friction against steel (Ra = 1 µm, 50 HRC)

## Additional Properties

### Chemical Resistance

iglidur® M250 plain bearings have a good resistance to chemicals. They are resistant to most lubricants. iglidur® M250 are not affected by most weak organic and inorganic acids.

► Chemical Table, page 1258

Medium	Resistance
Alcohol	+ to 0
Hydrocarbons	+
Greases, oils without additives	+
Fuels	+
Diluted acids	0 to –
Strong acids	–
Diluted alkalines	+
Strong alkalines	0

+ resistant 0 conditionally resistant – not resistant

All data given at room temperature [+20 °C]

Table 05: Chemical resistance

### Radiation Resistance

Plain bearings made from iglidur® M250 can be used conditionally under radioactive radiation. They are resistant to radiation up to a radiation intensity of  $1 \cdot 10^4$  Gy.

### UV Resistance

iglidur® M250 plain bearings are permanently resistant to UV radiation.

### Vacuum

In a vacuum environment, the iglidur® M250 plain bearing releases moisture as vapour. The relatively high moisture absorption of the bearing allows only limited use in the vacuum.

### Electrical Properties

iglidur® M250 plain bearings are electrically insulating.

Volume resistance	> $10^{13} \Omega\text{cm}$
Surface resistance	> $10^{11} \Omega$

## Moisture Absorption

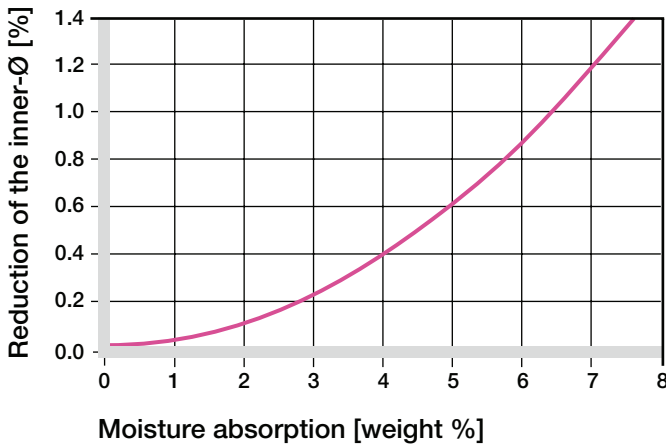
The moisture absorption of iglidur® M250 plain bearings is approximately 1.4 % in standard atmosphere. The saturation limit in water is 7.5 %. This must be taken into account along with other application conditions.

### Maximum moisture absorption

At +23 °C/50 % r.h. 1.4 % weight

Max. water absorption 7.6 % weight

**Table 06: Moisture absorption**



**Diagram 10: Effect of moisture absorption on plain bearings**

## Installation Tolerances

iglidur® M250 plain bearings require a relatively large amount of clearance for optimal operation. This ensures that the bearing remains reliable during temperature change and water absorption. The disadvantages of the bearings clearance are minimised by the vibration dampening properties. The bearings are designed for pressfit into a housing machined to a H7 tolerance. After being assembled into a nominal size housing, in standard cases the inner diameter automatically adjusts to the D11 tolerances. For particular dimensions the tolerance differs depending on the wall thickness (please see product range table). The shaft should have a recommended minimum h9 tolerance.

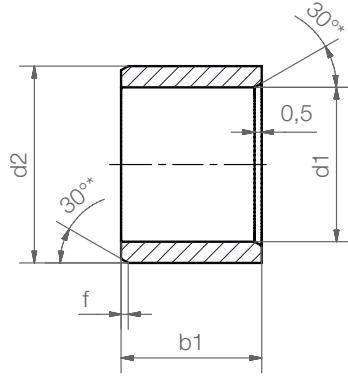
► Testing Methods, page 75

Diameter d1 [mm]	Shaft h9 [mm]	iglidur® M250 D11 [mm]	Housing H7 [mm]
up to 3	0-0.025	+0.020 +0.080	0 +0.010
> 3 to 6	0-0.030	+0.030 +0.105	0 +0.012
> 6 to 10	0-0.036	+0.040 +0.130	0 +0.015
> 10 to 18	0-0.043	+0.050 +0.160	0 +0.018
> 18 to 30	0-0.052	+0.065 +0.195	0 +0.021
> 30 to 50	0-0.062	+0.080 +0.240	0 +0.025
> 50 to 80	0-0.074	+0.100 +0.290	0 +0.030

**Table 07: Important tolerances for plain bearings according to ISO 3547-1 after pressfit**



## Sleeve bearing



### Order key

## MSM-0103-02



Dimensions according to DIN 1850 and special dimensions

\* thickness < 1 mm, chamfer = 20°

Chamfer in relation to the d1

d1 [mm]:	Ø 1-6	Ø 6-12	Ø 12-30	Ø > 30
f [mm]:	0.3	0.5	0.8	1.2

### Dimensions [mm]

Part number	d1	d1-Tolerance*	d2	b1 h13
MSM-0103-02	1.0	+0.020 +0.080	3.0	2.0
MSM-0104-02	1.5	+0.020 +0.080	4.0	2.0
MSM-0205-01	2.0	+0.020 +0.080	5.0	1.0
MSM-0205-02	2.0	+0.020 +0.080	5.0	2.0
MSM-0205-03	2.0	+0.020 +0.080	5.0	3.0
MSM-0206-03	2.5	+0.020 +0.080	6.0	3.0
MSM-0305-03	3.0	+0.020 +0.080	5.0	3.0
MSM-0305-04	3.0	+0.020 +0.080	5.0	4.0
MSM-0306-03	3.0	+0.020 +0.080	6.0	3.0
MSM-0306-04	3.0	+0.020 +0.080	6.0	4.0
MSM-0407-03	4.0	+0.030 +0.105	7.0	3.0
MSM-0407-04	4.0	+0.030 +0.105	7.0	4.0
MSM-0407-06	4.0	+0.030 +0.105	7.0	6.0
MSM-0408-04	4.0	+0.030 +0.105	8.0	4.0
MSM-0408-06	4.0	+0.030 +0.105	8.0	6.0
MSM-0508-04	5.0	+0.030 +0.105	8.0	4.0
MSM-0508-05	5.0	+0.030 +0.105	8.0	5.0
MSM-0508-08	5.0	+0.030 +0.105	8.0	8.0
MSM-0509-05	5.0	+0.030 +0.105	9.0	5.0
MSM-0509-08	5.0	+0.030 +0.105	9.0	8.0
MSM-0608-10	6.0	+0.030 +0.105	8.0	10.0
MSM-0609-06	6.0	+0.030 +0.105	9.0	6.0
MSM-0610-02	6.0	+0.030 +0.105	10.0	2.5
MSM-0610-04	6.0	+0.030 +0.105	10.0	4.0
MSM-0610-06	6.0	+0.030 +0.105	10.0	6.0

Part number	d1	d1-Tolerance*	d2	b1 h13
MSM-0610-08	6.0	+0.030 +0.105	10.0	8.0
MSM-0610-10	6.0	+0.030 +0.105	10.0	10.0
MSM-0611-04	6.0	+0.030 +0.105	11.0	4.0
MSM-0612-06	6.0	+0.030 +0.105	12.0	6.0
MSM-0612-10	6.0	+0.030 +0.105	12.0	10.0
MSM-0710-05	7.0	+0.040 +0.130	10.0	5.0
MSM-0710-08	7.0	+0.040 +0.130	10.0	8.0
MSM-0710-10	7.0	+0.040 +0.130	10.0	10.0
MSM-0711-16	7.0	+0.040 +0.130	11.0	16.0
MSM-0810-06	8.0	+0.040 +0.130	10.0	6.0
MSM-0810-08	8.0	+0.040 +0.130	10.0	8.0
MSM-0810-10	8.0	+0.040 +0.130	10.0	10.0
MSM-0811-06	8.0	+0.040 +0.130	11.0	6.0
MSM-0811-08	8.0	+0.040 +0.130	11.0	8.0
MSM-0811-12	8.0	+0.040 +0.130	11.0	12.0
MSM-0812-04	8.0	+0.040 +0.130	12.0	4.0
MSM-0812-06	8.0	+0.040 +0.130	12.0	6.0
MSM-0812-08	8.0	+0.040 +0.130	12.0	8.0
MSM-0812-10	8.0	+0.040 +0.130	12.0	10.0
MSM-0812-12	8.0	+0.040 +0.130	12.0	12.0
MSM-0814-06	8.0	+0.040 +0.130	14.0	6.0
MSM-0814-10	8.0	+0.040 +0.130	14.0	10.0
MSM-0912-14	9.0	+0.040 +0.130	12.0	14.0
MSM-1014-06	10.0	+0.040 +0.130	14.0	6.0
MSM-1014-08	10.0	+0.040 +0.130	14.0	8.0

\* after pressfit. Testing methods ► page 75



delivery from stock  
time



prices price list online  
www.igus.eu/eu/m250



Sleeve bearing

## Dimensions [mm]

Part number	d1	d1-Tolerance*	d2	b1 h13
MSM-1014-10	10.0	+0.040 +0.130	14.0	10.0
MSM-1014-16	10.0	+0.040 +0.130	14.0	16.0
MSM-1016-06	10.0	+0.040 +0.130	16.0	6.0
MSM-1016-08	10.0	+0.040 +0.130	16.0	8.0
MSM-1016-10	10.0	+0.040 +0.130	16.0	10.0
MSM-1016-16	10.0	+0.040 +0.130	16.0	16.0
MSM-1016-50	10.0	+0.040 +0.130	16.0	50.0
MSM-1214-15	12.0	+0.050 +0.160	14.0	15.0
MSM-1214-20	12.0	+0.050 +0.160	14.0	20.0
MSM-1216-15	12.0	+0.050 +0.160	16.0	15.0
MSM-1216-20	12.0	+0.050 +0.160	16.0	20.0
MSM-1218-08	12.0	+0.050 +0.160	18.0	8.0
MSM-1218-10	12.0	+0.050 +0.160	18.0	10.0
MSM-1218-15	12.0	+0.050 +0.160	18.0	15.0
MSM-1218-20	12.0	+0.050 +0.160	18.0	20.0
MSM-1416-085	14.0	+0.050 +0.160	16.0	8.5
MSM-1416-10	14.0	+0.050 +0.160	16.0	10.0
MSM-1416-15	14.0	+0.050 +0.160	16.0	15.0
MSM-1416-20	14.0	+0.050 +0.160	16.0	20.0
MSM-1416-29	14.0	+0.050 +0.160	16.0	29.0
MSM-1418-20	14.0	+0.050 +0.160	18.0	20.0
MSM-1420-10	14.0	+0.050 +0.160	20.0	10.0
MSM-1420-15	14.0	+0.050 +0.160	20.0	15.0
MSM-1420-20	14.0	+0.050 +0.160	20.0	20.0
MSM-1517-10	15.0	+0.050 +0.160	17.0	10.0
MSM-1517-15	15.0	+0.050 +0.160	17.0	15.0
MSM-1521-10	15.0	+0.050 +0.160	21.0	10.0
MSM-1521-15	15.0	+0.050 +0.160	21.0	15.0
MSM-1521-20	15.0	+0.050 +0.160	21.0	20.0
MSM-1521-23	15.0	+0.050 +0.160	21.0	23.0
MSM-1618-12	16.0	+0.050 +0.160	18.0	12.0
MSM-1618-20	16.0	+0.050 +0.160	18.0	20.0
MSM-1620-20	16.0	+0.050 +0.160	20.0	20.0
MSM-1620-25	16.0	+0.050 +0.160	20.0	25.0
MSM-1620-30	16.0	+0.050 +0.160	20.0	30.0
MSM-1622-12	16.0	+0.050 +0.160	22.0	12.0
MSM-1622-15	16.0	+0.050 +0.160	22.0	15.0
MSM-1622-16	16.0	+0.050 +0.160	22.0	16.0
MSM-1622-20	16.0	+0.050 +0.160	22.0	20.0
MSM-1622-25	16.0	+0.050 +0.160	22.0	25.0
MSM-1824-12	18.0	+0.050 +0.160	24.0	12.0
MSM-1824-20	18.0	+0.050 +0.160	24.0	20.0

Part number	d1	d1-Tolerance*	d2	b1 h13
MSM-1824-30	18.0	+0.050 +0.160	24.0	30.0
MSM-1824-40	18.0	+0.050 +0.160	24.0	40.0
MSM-2023-15	20.0	+0.065 +0.195	23.0	15.0
MSM-2023-20	20.0	+0.065 +0.195	23.0	20.0
MSM-2023-25	20.0	+0.065 +0.195	23.0	25.0
MSM-2025-14	20.0	+0.065 +0.195	25.0	14.0
MSM-2025-20	20.0	+0.065 +0.195	25.0	20.0
MSM-2025-30	20.0	+0.065 +0.195	25.0	30.0
MSM-2026-12	20.0	+0.065 +0.195	26.0	12.0
MSM-2026-15	20.0	+0.065 +0.195	26.0	15.0
MSM-2026-20	20.0	+0.065 +0.195	26.0	20.0
MSM-2026-30	20.0	+0.065 +0.195	26.0	30.0
MSM-2224-08	22.0	+0.065 +0.195	24.0	8.0
MSM-2226-15	22.0	+0.065 +0.195	26.0	15.0
MSM-2228-10	22.0	+0.065 +0.195	28.0	10.0
MSM-2228-15	22.0	+0.065 +0.195	28.0	15.0
MSM-2228-20	22.0	+0.065 +0.195	28.0	20.0
MSM-2228-30	22.0	+0.065 +0.195	28.0	30.0
MSM-2430-15	24.0	+0.065 +0.195	30.0	15.0
MSM-2430-20	24.0	+0.065 +0.195	30.0	20.0
MSM-2430-30	24.0	+0.065 +0.195	30.0	30.0
MSM-2528-12	25.0	+0.065 +0.195	28.0	12.0
MSM-2528-20	25.0	+0.065 +0.195	28.0	20.0
MSM-2530-20	25.0	+0.065 +0.195	30.0	20.0
MSM-2530-30	25.0	+0.065 +0.195	30.0	30.0
MSM-2530-40	25.0	+0.065 +0.195	30.0	40.0
MSM-2532-10	25.0	+0.065 +0.195	32.0	10.0
MSM-2532-12	25.0	+0.065 +0.195	32.0	12.0
MSM-2532-20	25.0	+0.065 +0.195	32.0	20.0
MSM-2532-30	25.0	+0.065 +0.195	32.0	30.0
MSM-2532-35	25.0	+0.065 +0.195	32.0	35.0
MSM-2532-40	25.0	+0.065 +0.195	32.0	40.0
MSM-2630-20	26.0	+0.065 +0.195	30.0	20.0
MSM-2632-30	26.0	+0.065 +0.195	32.0	30.0
MSM-2734-20	27.0	+0.065 +0.195	34.0	20.0
MSM-2734-30	27.0	+0.065 +0.195	34.0	30.0
MSM-2734-40	27.0	+0.065 +0.195	34.0	40.0
MSM-2833-20	28.0	+0.065 +0.195	33.0	20.0
MSM-2836-20	28.0	+0.065 +0.195	36.0	20.0
MSM-2836-30	28.0	+0.065 +0.195	36.0	30.0
MSM-2836-40	28.0	+0.065 +0.195	36.0	40.0
MSM-3035-20	30.0	+0.065 +0.195	35.0	20.0

\* after pressfit. Testing methods ► page 75



## Sleeve bearing

### Dimensions [mm]

Part number	d1	d1-Tolerance*	d2	b1 h13
<b>MSM-3035-40</b>	30.0	+0.065 +0.195	35.0	40.0
<b>MSM-3038-20</b>	30.0	+0.065 +0.195	38.0	20.0
<b>MSM-3038-30</b>	30.0	+0.065 +0.195	38.0	30.0
<b>MSM-3038-40</b>	30.0	+0.065 +0.195	38.0	40.0
<b>MSM-3040-40</b>	30.0	+0.065 +0.195	40.0	40.0
<b>MSM-3240-20</b>	32.0	+0.080 +0.240	40.0	20.0

Part number	d1	d1-Tolerance*	d2	b1 h13
<b>MSM-3240-30</b>	32.0	+0.080 +0.240	40.0	30.0
<b>MSM-3240-40</b>	32.0	+0.080 +0.240	40.0	40.0
<b>MSM-3542-50</b>	35.0	+0.080 +0.240	42.0	50.0
<b>MSM-4046-20</b>	40.0	+0.080 +0.240	46.0	20.0
<b>MSM-7580-60</b>	75.0	+0.100 +0.290	80.0	60.0

\* after pressfit. Testing methods ► page 75



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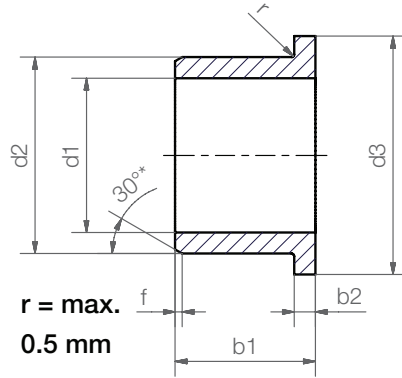


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## Flange bearing



### Order key

## MFM-0103-02



Length b1  
Outer diameter d2  
Inner diameter d1  
Metric  
Type (Form S)  
Material iglidur® M250

Dimensions according to DIN 1850 and special dimensions

\* thickness < 1 mm, chamfer = 20°

Chamfer in relation to the d1

d1 [mm]:	Ø 1-6	Ø 6-12	Ø 12-30	Ø > 30
f [mm]:	0.3	0.5	0.8	1.2

### Dimensions [mm]

Part number	d1	d1-Tolerance*	d2	d3 d13	b1 h13	b2 -0.14
MFM-0103-02	1.0	+0.020 +0.080	3.0	5.0	2.0	1.0
MFM-0104-02	1.5	+0.020 +0.080	4.0	6.0	2.0	1.0
MFM-0205-03	2.0	+0.020 +0.080	5.0	8.0	3.0	1.5
MFM-0206-03	2.5	+0.020 +0.080	6.0	9.0	3.0	1.5
MFM-0306-04	3.0	+0.020 +0.080	6.0	9.0	4.0	1.5
MFM-0408-04	4.0	+0.030 +0.105	8.0	12.0	4.0	2.0
MFM-0408-06	4.0	+0.030 +0.105	8.0	12.0	6.0	2.0
MFM-0408-08	4.0	+0.030 +0.105	8.0	12.0	8.0	2.0
MFM-0509-05	5.0	+0.030 +0.105	9.0	13.0	5.0	2.0
MFM-0509-06	5.0	+0.030 +0.105	9.0	13.0	6.0	2.0
MFM-0509-08	5.0	+0.030 +0.105	9.0	13.0	8.0	2.0
MFM-0610-04	6.0	+0.030 +0.105	10.0	14.0	4.0	2.0
MFM-0610-06	6.0	+0.030 +0.105	10.0	14.0	6.0	2.0
MFM-0610-10	6.0	+0.030 +0.105	10.0	14.0	10.0	2.0
MFM-0611-04	6.0	+0.030 +0.105	11.0	14.0	4.0	2.0
MFM-0612-06	6.0	+0.030 +0.105	12.0	14.0	6.0	3.0
MFM-0612-10	6.0	+0.030 +0.105	12.0	14.0	10.0	3.0
MFM-0711-08	7.0	+0.040 +0.130	11.0	15.0	8.0	2.0
MFM-0811-05	8.0	+0.040 +0.130	11.0	13.0	5.0	2.0
MFM-0811-08	8.0	+0.040 +0.130	11.0	13.0	8.0	2.0
MFM-0812-06	8.0	+0.040 +0.130	12.0	16.0	6.0	2.0
MFM-0812-08	8.0	+0.040 +0.130	12.0	16.0	8.0	2.0
MFM-0812-12	8.0	+0.040 +0.130	12.0	16.0	12.0	2.0
MFM-0814-06	8.0	+0.040 +0.130	14.0	18.0	6.0	3.0
MFM-0814-10	8.0	+0.040 +0.130	14.0	18.0	10.0	3.0

\* after pressfit. Testing methods ► page 75

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Flange bearing

## Dimensions [mm]

Part number	d1	d1-Tolerance*	d2	d3 d13	b1 h13	b2 -0.14
MFM-081416-06	8.0	+0.040 +0.130	14.0	16.0	6.0	3.0
MFM-081416-10	8.0	+0.040 +0.130	14.0	16.0	10.0	3.0
MFM-0914-06	9.0	+0.040 +0.130	14.0	19.0	6.0	2.0
MFM-0914-10	9.0	+0.040 +0.130	14.0	19.0	10.0	2.0
MFM-0914-14	9.0	+0.040 +0.130	14.0	19.0	14.0	2.0
MFM-1014-10	10.0	+0.040 +0.130	14.0	19.0	10.0	2.0
MFM-1014-14	10.0	+0.040 +0.130	14.0	17.5	14.0	1.0
MFM-1014-19	10.0	+0.040 +0.130	14.0	17.5	19.0	1.0
MFM-1014-24	10.0	+0.040 +0.130	14.0	17.5	24.0	1.0
MFM-1014-34	10.0	+0.040 +0.130	14.0	17.5	34.0	1.0
MFM-101419-08	10.0	+0.040 +0.130	14.0	19.0	8.0	2.0
MFM-101419-12	10.0	+0.040 +0.130	14.0	19.0	12.0	1.5
MFM-101420-12	10.0	+0.040 +0.130	14.0	20.0	12.0	2.0
MFM-1016-08	10.0	+0.040 +0.130	16.0	22.0	8.0	3.0
MFM-1016-10	10.0	+0.040 +0.130	16.0	22.0	10.0	3.0
MFM-1016-16	10.0	+0.040 +0.130	16.0	22.0	16.0	3.0
MFM-101620-06	10.0	+0.040 +0.130	16.0	20.0	6.0	3.0
MFM-101620-10	10.0	+0.040 +0.130	16.0	20.0	10.0	3.0
MFM-1216-10	12.0	+0.050 +0.160	16.0	22.0	10.0	2.0
MFM-1216-20	12.0	+0.050 +0.160	16.0	22.0	20.0	2.0
MFM-1218-08	12.0	+0.050 +0.160	18.0	24.0	8.0	3.0
MFM-1218-10	12.0	+0.050 +0.160	18.0	22.0	10.0	3.0
MFM-1218-12	12.0	+0.050 +0.160	18.0	24.0	12.0	3.0
MFM-1218-15	12.0	+0.050 +0.160	18.0	22.0	15.0	3.0
MFM-1218-20	12.0	+0.050 +0.160	18.0	22.0	20.0	3.0
MFM-1315-14	13.0	+0.050 +0.160	15.0	20.0	14.0	2.0
MFM-131624-08	13.0	+0.050 +0.160	16.0	24.0	8.0	2.0
MFM-1420-07	14.0	+0.050 +0.160	20.0	25.0	7.0	3.0
MFM-1420-10	14.0	+0.050 +0.160	20.0	25.0	10.0	3.0
MFM-1420-15	14.0	+0.050 +0.160	20.0	25.0	15.0	3.0
MFM-1420-20	14.0	+0.050 +0.160	20.0	25.0	20.0	3.0
MFM-1521-10	15.0	+0.050 +0.160	21.0	27.0	10.0	3.0
MFM-1521-15	15.0	+0.050 +0.160	21.0	27.0	15.0	3.0
MFM-1521-20	15.0	+0.050 +0.160	21.0	27.0	20.0	3.0
MFM-1521-25	15.0	+0.050 +0.160	21.0	27.0	25.0	3.0
MFM-1618-08/02	16.0	+0.050 +0.160	18.0	28.0	8.0	2.0
MFM-1618-12	16.0	+0.050 +0.160	18.0	24.0	12.0	1.0
MFM-1622-12	16.0	+0.050 +0.160	22.0	28.0	12.0	3.0
MFM-1622-15	16.0	+0.050 +0.160	22.0	28.0	15.0	3.0
MFM-1622-20	16.0	+0.050 +0.160	22.0	28.0	20.0	3.0
MFM-1622-25	16.0	+0.050 +0.160	22.0	28.0	25.0	3.0
MFM-1824-08	18.0	+0.050 +0.160	24.0	30.0	8.0	3.0

\* after pressfit. Testing methods ► page 75



## Flange bearing

### Dimensions [mm]

Part number	d1	d1-Tolerance*	d2	d3 d13	b1 h13	b2 -0.14
MFM-1824-12	18.0	+0.050 +0.160	24.0	30.0	12.0	3.0
MFM-1824-18	18.0	+0.050 +0.160	24.0	30.0	18.0	3.0
MFM-1824-20	18.0	+0.050 +0.160	24.0	30.0	20.0	3.0
MFM-1824-30	18.0	+0.050 +0.160	24.0	30.0	30.0	3.0
MFM-182426-078	18.0	+0.050 +0.160	24.0	26.0	7.8	3.0
MFM-192427-12	19.0	+0.065 +0.195	24.0	27.0	12.0	2.0
MFM-2026-15	20.0	+0.065 +0.195	26.0	32.0	15.0	3.0
MFM-2026-20	20.0	+0.065 +0.195	26.0	32.0	20.0	3.0
MFM-202628-12	20.0	+0.065 +0.195	26.0	28.0	12.0	3.0
MFM-2026-30	20.0	+0.065 +0.195	26.0	32.0	30.0	3.0
MFM-2228-15	22.0	+0.065 +0.195	28.0	34.0	15.0	3.0
MFM-2228-20	22.0	+0.065 +0.195	28.0	34.0	20.0	3.0
MFM-2228-30	22.0	+0.065 +0.195	28.0	34.0	30.0	3.0
MFM-2430-15	24.0	+0.065 +0.195	30.0	36.0	15.0	3.0
MFM-2430-20	24.0	+0.065 +0.195	30.0	36.0	20.0	3.0
MFM-2430-30	24.0	+0.065 +0.195	30.0	36.0	30.0	3.0
MFM-2532-12	25.0	+0.065 +0.195	32.0	38.0	12.0	4.0
MFM-2532-15	25.0	+0.065 +0.195	32.0	38.0	15.0	4.0
MFM-2532-20	25.0	+0.065 +0.195	32.0	38.0	20.0	4.0
MFM-2532-30	25.0	+0.065 +0.195	32.0	38.0	30.0	4.0
MFM-2532-40	25.0	+0.065 +0.195	32.0	38.0	40.0	4.0
MFM-2734-20	27.0	+0.065 +0.195	34.0	40.0	20.0	4.0
MFM-2734-30	27.0	+0.065 +0.195	34.0	40.0	30.0	4.0
MFM-2734-40	27.0	+0.065 +0.195	34.0	40.0	40.0	4.0
MFM-2836-20	28.0	+0.065 +0.195	36.0	42.0	20.0	4.0
MFM-2836-30	28.0	+0.065 +0.195	36.0	42.0	30.0	4.0
MFM-2836-40	28.0	+0.065 +0.195	36.0	42.0	40.0	4.0
MFM-3035-20	30.0	+0.065 +0.195	35.0	44.0	20.0	4.0
MFM-3038-20	30.0	+0.065 +0.195	38.0	44.0	20.0	4.0
MFM-3038-30	30.0	+0.065 +0.195	38.0	44.0	30.0	4.0
MFM-3038-40	30.0	+0.065 +0.195	38.0	44.0	40.0	4.0
MFM-3240-20	32.0	+0.080 +0.240	40.0	46.0	20.0	4.0
MFM-3240-30	32.0	+0.080 +0.240	40.0	46.0	30.0	4.0
MFM-3240-40	32.0	+0.080 +0.240	40.0	46.0	40.0	4.0

\* after pressfit. Testing methods ► page 75



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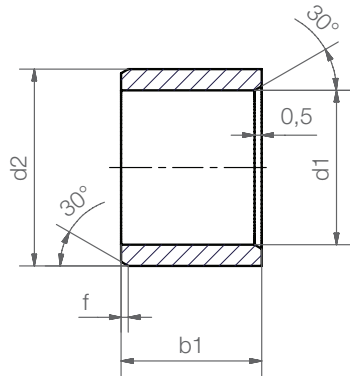


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## Sleeve bearing



### Order key

## MSI-0203-02



- Length b1
- Outer diameter d2
- Inner diameter d1
- Inch
- Type (Form S)
- Material iglidur® M250

### Chamfer in relation to the d1

d1 [Inch]:	Ø 0.040–0.236	Ø 0.236–0.472	Ø 0.472–1.18	Ø > 1.18
f [Inch]:	0.012	0.019	0.031	0.047

### Dimensions [Inch]

Part number	d1	d2	b1	d1*		Housing bore		Shaft size	
				max.	min.	max.	min.	max.	min.
MSI-0203-02	1/8	3/16	1/8	.1280	.1262	.1990	.1985	.1250	.1241
MSI-0203-04	1/8	3/16	1/4	.1280	.1262	.1990	.1985	.1250	.1241
MSI-0204-02	1/8	1/4	1/8	.1280	.1262	.2515	.2510	.1250	.1241
MSI-0204-03	1/8	1/4	3/16	.1280	.1262	.2515	.2510	.1250	.1241
MSI-0204-04	1/8	1/4	1/4	.1280	.1262	.2515	.2510	.1250	.1241
MSI-0204-06	1/8	1/4	3/8	.1280	.1262	.2515	.2510	.1250	.1241
MSI-0304-04	3/16	1/4	1/4	.1905	.1887	.2515	.2510	.1875	.1866
MSI-0304-06	3/16	1/4	3/8	.1905	.1887	.2515	.2510	.1875	.1866
MSI-0304-08	3/16	1/4	1/2	.1905	.1887	.2515	.2510	.1875	.1866
MSI-0305-02	3/16	5/16	1/8	.1905	.1887	.3140	.3135	.1875	.1866
MSI-0305-03	3/16	5/16	3/16	.1905	.1887	.3140	.3135	.1875	.1866
MSI-0305-04	3/16	5/16	1/4	.1905	.1887	.3140	.3135	.1875	.1866
MSI-0305-05	3/16	5/16	5/16	.1905	.1887	.3140	.3135	.1875	.1866
MSI-0305-06	3/16	5/16	3/8	.1905	.1887	.3140	.3135	.1875	.1866
MSI-0305-08	3/16	5/16	1/2	.1905	.1887	.3140	.3135	.1875	.1866
MSI-0405-03	1/4	5/16	3/16	.2539	.2516	.3140	.3135	.2500	.2491
MSI-0405-06	1/4	5/16	3/8	.2539	.2516	.3140	.3135	.2500	.2491
MSI-0405-08	1/4	5/16	1/2	.2539	.2516	.3140	.3135	.2500	.2491
MSI-0406-02	1/4	3/8	1/8	.2539	.2516	.3765	.3760	.2500	.2491
MSI-0406-03	1/4	3/8	3/16	.2539	.2516	.3765	.3760	.2500	.2491
MSI-0406-04	1/4	3/8	1/4	.2539	.2516	.3765	.3760	.2500	.2491
MSI-0406-05	1/4	3/8	5/16	.2539	.2516	.3765	.3760	.2500	.2491
MSI-0406-06	1/4	3/8	3/8	.2539	.2516	.3765	.3760	.2500	.2491
MSI-0406-08	1/4	3/8	1/2	.2539	.2516	.3765	.3760	.2500	.2491
MSI-0406-10	1/4	3/8	5/8	.2539	.2516	.3765	.3760	.2500	.2491

\* after pressfit. Testing methods ► page 75

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Sleeve bearing

## Dimensions [Inch]

Part number	d1	d2	b1	d1*		Housing bore		Shaft size	
				max.	min.	max.	min.	max.	min.
MSI-0406-12	1/4	3/8	3/4	.2539	.2516	.3765	.3760	.2500	.2491
MSI-0506-04	5/16	3/8	1/4	.3164	.3141	.3765	.3760	.3125	.3116
MSI-0506-06	5/16	3/8	3/8	.3164	.3141	.3765	.3760	.3125	.3116
MSI-0506-08	5/16	3/8	1/2	.3164	.3141	.3765	.3760	.3125	.3116
MSI-0507-03	5/16	7/16	3/16	.3164	.3141	.4390	.4385	.3125	.3116
MSI-0507-04	5/16	7/16	1/4	.3164	.3141	.4390	.4385	.3125	.3116
MSI-0507-05	5/16	7/16	5/16	.3164	.3141	.4390	.4385	.3125	.3116
MSI-0507-06	5/16	7/16	3/8	.3164	.3141	.4390	.4385	.3125	.3116
MSI-0507-08	5/16	7/16	1/2	.3164	.3141	.4390	.4385	.3125	.3116
MSI-0507-10	5/16	7/16	5/8	.3164	.3141	.4390	.4385	.3125	.3116
MSI-0507-12	5/16	7/16	3/4	.3164	.3141	.4390	.4385	.3125	.3116
MSI-0607-04	3/8	7/16	1/4	.3789	.3766	.4390	.4385	.3750	.3741
MSI-0607-06	3/8	7/16	3/8	.3789	.3766	.4390	.4385	.3750	.3741
MSI-0607-08	3/8	7/16	1/2	.3789	.3766	.4390	.4385	.3750	.3741
MSI-0608-04	3/8	1/2	1/4	.3789	.3766	.5015	.5010	.3750	.3741
MSI-0608-05	3/8	1/2	5/16	.3789	.3766	.5015	.5010	.3750	.3741
MSI-0608-06	3/8	1/2	3/8	.3789	.3766	.5015	.5010	.3750	.3741
MSI-0608-08	3/8	1/2	1/2	.3789	.3766	.5015	.5010	.3750	.3741
MSI-0608-10	3/8	1/2	5/8	.3789	.3766	.5015	.5010	.3750	.3741
MSI-0608-12	3/8	1/2	3/4	.3789	.3766	.5015	.5010	.3750	.3741
MSI-0608-16	3/8	1/2	1	.3789	.3766	.5015	.5010	.3750	.3741
MSI-0709-06	7/16	9/16	3/8	.4422	.4395	.5941	.5934	.4375	.4365
MSI-0709-08	7/16	9/16	1/2	.4422	.4395	.5941	.5934	.4375	.4365
MSI-0810-04	1/2	5/8	1/4	.5047	.5020	.6260	.6250	.5000	.4990
MSI-0810-05	1/2	5/8	5/16	.5047	.5020	.6260	.6250	.5000	.4990
MSI-0810-06	1/2	5/8	3/8	.5047	.5020	.6260	.6250	.5000	.4990
MSI-0810-08	1/2	5/8	1/2	.5047	.5020	.6260	.6250	.5000	.4990
MSI-0810-10	1/2	5/8	5/8	.5047	.5020	.6260	.6250	.5000	.4990
MSI-0810-12	1/2	5/8	3/4	.5047	.5020	.6260	.6250	.5000	.4990
MSI-0810-16	1/2	5/8	1	.5047	.5020	.6260	.6250	.5000	.4990
MSI-1012-04	5/8	3/4	1/4	.6297	.6270	.7510	.7500	.6250	.6240
MSI-1012-06	5/8	3/4	3/8	.6297	.6270	.7510	.7500	.6250	.6240
MSI-1012-08	5/8	3/4	1/2	.6297	.6270	.7510	.7500	.6250	.6240
MSI-1012-10	5/8	3/4	5/8	.6297	.6270	.7510	.7500	.6250	.6240
MSI-1012-12	5/8	3/4	3/4	.6297	.6270	.7510	.7500	.6250	.6240
MSI-1012-16	5/8	3/4	1	.6297	.6270	.7510	.7500	.6250	.6240
MSI-1012-26	5/8	3/4	1 5/8	.6297	.6270	.7510	.7500	.6250	.6240
MSI-1013-06	5/8	13/16	3/8	.6297	.6270	.8135	.8125	.6250	.6240
MSI-1013-08	5/8	13/16	1/2	.6297	.6270	.8135	.8125	.6250	.6240
MSI-1013-10	5/8	13/16	5/8	.6297	.6270	.8135	.8125	.6250	.6240
MSI-1013-12	5/8	13/16	3/4	.6297	.6270	.8135	.8125	.6250	.6240
MSI-1013-16	5/8	13/16	1	.6297	.6270	.8135	.8125	.6250	.6240

\* after pressfit. Testing methods ► page 75





Sleeve bearing

## Dimensions [Inch]

Part number	d1	d2	b1	d1*		Housing bore		Shaft size	
				max.	min.	max.	min.	max.	min.
MSI-1113-12	11/16	13/16	3/4	.6921	.6893	.8135	.8125	.6875	.6865
MSI-1113-14	11/16	13/16	7/8	.6921	.6893	.8135	.8125	.6875	.6865
MSI-1113-16	11/16	13/16	1	.6922	.6900	.8135	.8125	.6875	.6865
MSI-1214-06	3/4	7/8	3/8	.7559	.7525	.8760	.8750	.7500	.7490
MSI-1214-12	3/4	7/8	3/4	.7559	.7525	.8760	.8750	.7500	.7490
MSI-1214-16	3/4	7/8	1	.7559	.7525	.8760	.8750	.7500	.7490
MSI-1214-24	3/4	7/8	1 1/2	.7559	.7525	.8760	.8750	.7500	.7490
MSI-1216-06	3/4	1	3/8	.7559	.7525	1.0010	1.0000	.7500	.7490
MSI-1216-08	3/4	1	1/2	.7559	.7525	1.0010	1.0000	.7500	.7490
MSI-1216-10	3/4	1	5/8	.7559	.7525	1.0010	1.0000	.7500	.7490
MSI-1216-12	3/4	1	3/4	.7559	.7525	1.0010	1.0000	.7500	.7490
MSI-1216-16	3/4	1	1	.7559	.7525	1.0010	1.0000	.7500	.7490
MSI-1216-20	3/4	1	1 1/4	.7559	.7525	1.0010	1.0000	.7500	.7490
MSI-1216-24	3/4	1	1 1/2	.7559	.7525	1.0010	1.0000	.7500	.7490
MSI-1316-08	13/16	1	1/2	.8184	.8151	1.0010	1.0000	.8126	.8116
MSI-1416-12	7/8	1	3/4	.8809	.8775	1.0010	1.0000	.8750	.8740
MSI-1416-16	7/8	1	1	.8809	.8775	1.0010	1.0000	.8750	.8740
MSI-1416-24	7/8	1	1 1/2	.8809	.8775	1.0010	1.0000	.8750	.8740
MSI-1418-08	7/8	1 1/8	1/2	.8809	.8775	1.1260	1.1250	.8750	.8740
MSI-1418-12	7/8	1 1/8	3/4	.8809	.8775	1.1260	1.1250	.8750	.8740
MSI-1418-16	7/8	1 1/8	1	.8809	.8775	1.1260	1.1250	.8750	.8740
MSI-1418-24	7/8	1 1/8	1 1/2	.8809	.8775	1.1260	1.1250	.8750	.8740
MSI-1618-12	1	1 1/8	3/4	1.0059	1.0025	1.1260	1.1250	1.0000	.9990
MSI-1618-16	1	1 1/8	1	1.0059	1.0025	1.1260	1.1250	1.0000	.9990
MSI-1618-24	1	1 1/8	1 1/2	1.0059	1.0025	1.1260	1.1250	1.0000	.9990
MSI-1620-08	1	1 1/4	1/2	1.0059	1.0025	1.2510	1.2500	1.0000	.9990
MSI-1620-10	1	1 1/4	5/8	1.0059	1.0025	1.2510	1.2500	1.0000	.9990
MSI-1620-12	1	1 1/4	3/4	1.0059	1.0025	1.2510	1.2500	1.0000	.9990
MSI-1620-16	1	1 1/4	1	1.0059	1.0025	1.2510	1.2500	1.0000	.9990
MSI-1620-24	1	1 1/4	1 1/2	1.0059	1.0025	1.2510	1.2500	1.0000	.9990
MSI-1620-32	1	1 1/4	2	1.0059	1.0025	1.2510	1.2500	1.0000	.9990
MSI-1822-16	1 1/8	1 3/8	1	1.1309	1.1275	1.3760	1.3750	1.1250	1.1240
MSI-1822-24	1 1/8	1 3/8	1 1/2	1.1309	1.1275	1.3760	1.3750	1.1250	1.1240
MSI-2024-12	1 1/4	1 1/2	3/4	1.2600	1.2531	1.5005	1.4995	1.2500	1.2490
MSI-2024-16	1 1/4	1 1/2	1	1.2600	1.2531	1.5005	1.4995	1.2500	1.2490
MSI-2024-22	1 1/4	1 1/2	1 3/8	1.2600	1.2531	1.5005	1.4995	1.2500	1.2490
MSI-2024-24	1 1/4	1 1/2	1 1/2	1.2600	1.2531	1.5005	1.4995	1.2500	1.2490
MSI-2024-40	1 1/4	1 1/2	2 1/2	1.2600	1.2531	1.5005	1.4995	1.2500	1.2490
MSI-2226-16	1 3/8	1 5/8	1	1.3850	1.3182	1.6255	1.6245	1.3750	1.3740

\* after pressfit. Testing methods ► page 75

 **delivery** from stock  
time

 **prices** price list online  
[www.igus.eu/eu/m250](http://www.igus.eu/eu/m250)



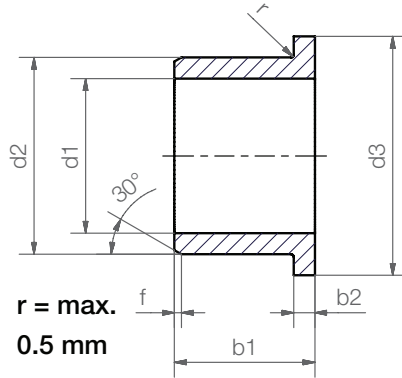
Sleeve bearing

## Dimensions [Inch]

Part number	d1	d2	b1	d1*		Housing bore		Shaft size	
				max.	min.	max.	min.	max.	min.
MSI-2428-12	1 1/2	1 3/4	3/4	1.5100	1.5032	1.7505	1.7495	1.5000	1.4990
MSI-2428-16	1 1/2	1 3/4	1	1.5100	1.5032	1.7505	1.7495	1.5000	1.4990
MSI-2428-24	1 1/2	1 3/4	1 1/2	1.5100	1.5032	1.7505	1.7495	1.5000	1.4990
MSI-2428-40	1 1/2	1 3/4	2 1/2	1.5100	1.5032	1.7505	1.7495	1.5000	1.4990
MSI-2630-16	1 5/8	1 7/8	1	1.6350	1.6282	1.8755	1.8745	1.6250	1.6240
MSI-2832-08	1 3/4	2	1/2	1.7560	1.7532	2.0005	1.9995	1.7500	1.7490
MSI-2832-12	1 3/4	2	3/4	1.7560	1.7532	2.0005	1.9995	1.7500	1.7490
MSI-2832-16	1 3/4	2	1	1.7560	1.7532	2.0005	1.9995	1.7500	1.7490
MSI-2832-24	1 3/4	2	1 1/2	1.7560	1.7532	2.0005	1.9995	1.7500	1.7490
MSI-2832-40	1 3/4	2	2 1/2	1.7560	1.7532	2.0005	1.9995	1.7500	1.7490
MSI-3236-16	2	2 1/4	1	2.0100	2.0032	2.2505	2.2495	2.0000	1.9990
MSI-3236-24	2	2 1/4	1 1/2	2.0100	2.0032	2.2505	2.2495	2.0000	1.9990
MSI-3236-32	2	2 1/4	2	2.0100	2.0032	2.2505	2.2495	2.0000	1.9990
MSI-3236-40	2	2 1/4	2 1/2	2.0100	2.0032	2.2505	2.2495	2.0000	1.9990
MSI-4852-16	3	3 1/4	1	3.0114	3.0039	3.2505	3.2495	3.0000	2.9990

\* after pressfit. Testing methods ► page 75

## Flange bearing



### Order key

**MFI-0203-02**



### Chamfer in relation to the d1

d1 [Inch]:	Ø 0.040–0.236	Ø 0.236–0.472	Ø 0.472–1.18	Ø > 1.18
f [Inch]:	0.012	0.019	0.031	0.047

### Dimensions [Inch]

Part number	d1	d2	b1	d3	b2	d1*		Housing bore		Shaft size	
						max.	min.	max.	min.	max.	min.
MFI-0203-02	1/8	3/16	1/8	.3125	.032	.1280	.1262	.1885	.1880	.1250	.1241
MFI-0203-04	1/8	3/16	1/4	.3125	.032	.1280	.1262	.1885	.1880	.1250	.1241
MFI-0204-02	1/8	1/4	1/8	.360	.047	.1280	.1262	.2515	.2510	.1250	.1241
MFI-0204-03	1/8	1/4	3/16	.360	.047	.1280	.1262	.2515	.2510	.1250	.1241
MFI-0204-04	1/8	1/4	1/4	.360	.047	.1280	.1262	.2515	.2510	.1250	.1241
MFI-0204-06	1/8	1/4	3/8	.360	.047	.1280	.1262	.2515	.2510	.1250	.1241
MFI-0204-12	1/8	1/4	3/4	.360	.047	.1280	.1262	.2515	.2510	.1250	.1241
MFI-0304-04	3/16	1/4	1/4	.375	.032	.1905	.1887	.2515	.2510	.1875	.1866
MFI-0304-06	3/16	1/4	3/8	.375	.032	.1905	.1887	.2515	.2510	.1875	.1866
MFI-0304-08	3/16	1/4	1/2	.375	.032	.1905	.1887	.2515	.2510	.1875	.1866
MFI-0305-03	3/16	5/16	3/16	.370	.047	.1905	.1887	.3140	.3135	.1875	.1866
MFI-0305-04	3/16	5/16	1/4	.370	.047	.1905	.1887	.3140	.3135	.1875	.1866
MFI-0305-05	3/16	5/16	5/16	.370	.047	.1905	.1887	.3140	.3135	.1875	.1866
MFI-0305-06	3/16	5/16	3/8	.370	.047	.1905	.1887	.3140	.3135	.1875	.1866
MFI-0305-08	3/16	5/16	1/2	.370	.047	.1905	.1887	.3140	.3135	.1875	.1866
MFI-0405-03	1/4	5/16	3/16	.4375	.047	.2539	.2516	.3140	.3135	.2500	.2491
MFI-0405-04	1/4	5/16	1/4	.4375	.032	.2539	.2516	.3140	.3135	.2500	.2491
MFI-0405-06	1/4	5/16	3/8	.4375	.032	.2539	.2516	.3140	.3135	.2500	.2491
MFI-0405-07	1/4	5/16	7/16	.4375	.047	.2539	.2516	.3140	.3135	.2500	.2491
MFI-0405-08	1/4	5/16	1/2	.4375	.032	.2539	.2516	.3140	.3135	.2500	.2491
MFI-0405-12	1/4	5/16	3/4	.4375	.047	.2539	.2516	.3140	.3135	.2500	.2491
MFI-0406-02	1/4	3/8	1/8	.560	.047	.2539	.2516	.3765	.3760	.2500	.2491
MFI-0406-03	1/4	3/8	3/16	.560	.047	.2539	.2516	.3765	.3760	.2500	.2491
MFI-0406-04	1/4	3/8	1/4	.560	.047	.2539	.2516	.3765	.3760	.2500	.2491
MFI-0406-06	1/4	3/8	3/8	.560	.047	.2539	.2516	.3765	.3760	.2500	.2491

\* after pressfit. Testing methods ► page 75



delivery from stock  
time



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Flange bearing

## Dimensions [Inch]

Part number	d1	d2	b1	d3	b2	d1*		Housing bore		Shaft size	
						max.	min.	max.	min.	max.	min.
MFI-0406-08	1/4	3/8	1/2	.560	.047	.2539	.2516	.3765	.3760	.2500	.2491
MFI-0406-10	1/4	3/8	5/8	.560	.047	.2539	.2516	.3765	.3760	.2500	.2491
MFI-0406-12	1/4	3/8	3/4	.560	.047	.2539	.2516	.3765	.3760	.2500	.2491
MFI-0506-04	5/16	3/8	1/4	.500	.032	.3164	.3141	.3765	.3760	.3125	.3116
MFI-0506-06	5/16	3/8	3/8	.500	.032	.3164	.3141	.3765	.3760	.3125	.3116
MFI-0506-08	5/16	3/8	1/2	.500	.032	.3164	.3141	.3765	.3760	.3125	.3116
MFI-0506-15	5/16	3/8	15/16	.500	.032	.3164	.3141	.3765	.3760	.3125	.3116
MFI-0507-03	5/16	7/16	3/16	.560	.062	.3164	.3141	.4390	.4385	.3125	.3116
MFI-0507-04	5/16	7/16	1/4	.560	.062	.3164	.3141	.4390	.4385	.3125	.3116
MFI-0507-05	5/16	7/16	5/16	.560	.062	.3164	.3141	.4390	.4385	.3125	.3116
MFI-0507-06	5/16	7/16	3/8	.560	.062	.3164	.3141	.4390	.4385	.3125	.3116
MFI-0507-08	5/16	7/16	1/2	.560	.062	.3164	.3141	.4390	.4385	.3125	.3116
MFI-0507-10	5/16	7/16	5/8	.560	.062	.3164	.3141	.4390	.4385	.3125	.3116
MFI-0507-12	5/16	7/16	3/4	.560	.062	.3164	.3141	.4390	.4385	.3125	.3116
MFI-0607-04	3/8	7/16	1/4	.5625	.032	.3789	.3766	.4390	.4385	.3750	.3741
MFI-0607-06	3/8	7/16	3/8	.5625	.032	.3789	.3766	.4390	.4385	.3750	.3741
MFI-0607-08	3/8	7/16	1/2	.5625	.032	.3789	.3766	.4390	.4385	.3750	.3741
MFI-0608-02	3/8	1/2	1/8	.625	.062	.3789	.3766	.5015	.5010	.3750	.3741
MFI-0608-03	3/8	1/2	3/16	.625	.062	.3789	.3766	.5015	.5010	.3750	.3741
MFI-0608-04	3/8	1/2	1/4	.625	.062	.3789	.3766	.5015	.5010	.3750	.3741
MFI-0608-05	3/8	1/2	5/16	.625	.062	.3789	.3766	.5015	.5010	.3750	.3741
MFI-0608-06	3/8	1/2	3/8	.625	.062	.3789	.3766	.5015	.5010	.3750	.3741
MFI-0608-08	3/8	1/2	1/2	.625	.062	.3789	.3766	.5015	.5010	.3750	.3741
MFI-0608-10	3/8	1/2	5/8	.625	.062	.3789	.3766	.5015	.5010	.3750	.3741
MFI-0608-12	3/8	1/2	3/4	.625	.062	.3789	.3766	.5015	.5010	.3750	.3741
MFI-0608-16	3/8	1/2	1	.625	.062	.3789	.3766	.5015	.5010	.3750	.3741
MFI-0709-06	7/16	9/16	3/8	.687	.062	.4422	.4395	.5941	.5934	.4375	.4365
MFI-0709-08	7/16	9/16	1/2	.687	.062	.4422	.4395	.5941	.5934	.4375	.4365
MFI-0810-02	1/2	5/8	1/8	.875	.062	.5047	.5020	.6260	.6250	.5000	.4990
MFI-0810-04	1/2	5/8	1/4	.875	.062	.5047	.5020	.6260	.6250	.5000	.4990
MFI-0810-05	1/2	5/8	5/16	.875	.062	.5047	.5020	.6260	.6250	.5000	.4990
MFI-0810-06	1/2	5/8	3/8	.875	.062	.5047	.5020	.6260	.6250	.5000	.4990
MFI-0810-08	1/2	5/8	1/2	.875	.062	.5047	.5020	.6260	.6250	.5000	.4990
MFI-0810-10	1/2	5/8	5/8	.875	.062	.5047	.5020	.6260	.6250	.5000	.4990
MFI-0810-12	1/2	5/8	3/4	.875	.062	.5047	.5020	.6260	.6250	.5000	.4990
MFI-0810-16	1/2	5/8	1	.875	.062	.5047	.5020	.6260	.6250	.5000	.4990
MFI-1012-06	5/8	3/4	3/8	1.000	.062	.6297	.6270	.7510	.7500	.6250	.6240
MFI-1012-08	5/8	3/4	1/2	1.000	.062	.6297	.6270	.7510	.7500	.6250	.6240
MFI-1012-10	5/8	3/4	5/8	1.000	.062	.6297	.6270	.7510	.7500	.6250	.6240
MFI-1012-12	5/8	3/4	3/4	1.000	.062	.6297	.6270	.7510	.7500	.6250	.6240
MFI-1012-16	5/8	3/4	1	1.000	.062	.6297	.6270	.7510	.7500	.6250	.6240
MFI-1012-24	5/8	3/4	1 1/2	1.000	.062	.6297	.6270	.7510	.7500	.6250	.6240

\* after pressfit. Testing methods ► page 75



## Flange bearing

### Dimensions [Inch]

Part number	d1	d2	b1	d3	b2	d1*		Housing bore		Shaft size	
						max.	min.	max.	min.	max.	min.
MFI-1013-08	5/8	13/16	1/2	1.063	.062	.6297	.6270	.8135	.8125	.6250	.6240
MFI-1013-10	5/8	13/16	5/8	1.063	.062	.6297	.6270	.8135	.8125	.6250	.6240
MFI-1013-12	5/8	13/16	3/4	1.063	.062	.6297	.6270	.8135	.8125	.6250	.6240
MFI-1013-16	5/8	13/16	1	1.063	.062	.6297	.6270	.8135	.8125	.6250	.6240
MFI-1214-06	3/4	7/8	3/8	1.125	.062	.7559	.7525	.8760	.8750	.6250	.6240
MFI-1214-08	3/4	7/8	1/2	1.125	.062	.7559	.7525	.8760	.8750	.6250	.6240
MFI-1214-12	3/4	7/8	3/4	1.125	.062	.7559	.7525	.8760	.8750	.7500	.7490
MFI-1214-16	3/4	7/8	1	1.125	.062	.7559	.7525	.8760	.8750	.7500	.7490
MFI-1214-24	3/4	7/8	1 1/2	1.125	.062	.7559	.7525	.8760	.8750	.7500	.7490
MFI-1216-08	3/4	1	1/2	1.250	.156	.7559	.7525	1.0010	1.0000	.7500	.7490
MFI-1216-10	3/4	1	5/8	1.250	.156	.7559	.7525	1.0010	1.0000	.7500	.7490
MFI-1216-12	3/4	1	3/4	1.250	.156	.7559	.7525	1.0010	1.0000	.7500	.7490
MFI-1216-16	3/4	1	1	1.250	.156	.7559	.7525	1.0010	1.0000	.7500	.7490
MFI-1216-24	3/4	1	1 1/2	1.250	.156	.7559	.7525	1.0010	1.0000	.7500	.7490
MFI-1416-12	7/8	1	3/4	1.250	.062	.8809	.8775	1.0010	1.0000	.8750	.8740
MFI-1416-16	7/8	1	1	1.250	.062	.8809	.8775	1.0010	1.0000	.8750	.8740
MFI-1416-24	7/8	1	1 1/2	1.250	.062	.8809	.8775	1.0010	1.0000	.8750	.8740
MFI-1418-08	7/8	1 1/8	1/2	1.375	.156	.8809	.8775	1.1260	1.1250	.8750	.8740
MFI-1418-12	7/8	1 1/8	3/4	1.375	.156	.8809	.8775	1.1260	1.1250	.8750	.8740
MFI-1418-16	7/8	1 1/8	1	1.375	.156	.8809	.8775	1.1260	1.1250	.8750	.8740
MFI-1418-24	7/8	1 1/8	1 1/2	1.375	.156	.8809	.8775	1.1260	1.1250	.8750	.8740
MFI-1618-03	1	1 1/8	3/16	1.375	.062	1.0059	1.0025	1.1260	1.1250	1.0000	.9990
MFI-1618-12	1	1 1/8	3/4	1.375	.062	1.0059	1.0025	1.1260	1.1250	1.0000	.9990
MFI-1618-16	1	1 1/8	1	1.375	.062	1.0059	1.0025	1.1260	1.1250	1.0000	.9990
MFI-1618-24	1	1 1/8	1 1/2	1.375	.062	1.0059	1.0025	1.1260	1.1250	1.0000	.9990
MFI-1620-08	1	1 1/4	1/2	1.500	.188	1.0059	1.0025	1.2510	1.2500	1.0000	.9990
MFI-1620-10	1	1 1/4	5/8	1.500	.188	1.0059	1.0025	1.2510	1.2500	1.0000	.9990
MFI-1620-12	1	1 1/4	3/4	1.500	.188	1.0059	1.0025	1.2510	1.2500	1.0000	.9990
MFI-1620-16	1	1 1/4	1	1.500	.188	1.0059	1.0025	1.2510	1.2500	1.0000	.9990
MFI-1620-24	1	1 1/4	1 1/2	1.500	.188	1.0059	1.0025	1.2510	1.2500	1.0000	.9990
MFI-2024-07	1 1/4	1 1/2	7/16	1.750	.200	1.2600	1.2531	1.5005	1.4995	1.2500	1.2490
MFI-2024-12	1 1/4	1 1/2	3/4	1.750	.200	1.2600	1.2531	1.5005	1.4995	1.2500	1.2490
MFI-2024-16	1 1/4	1 1/2	1	1.750	.200	1.2600	1.2531	1.5005	1.4995	1.2500	1.2490
MFI-2024-24	1 1/4	1 1/2	1 1/2	1.750	.200	1.2600	1.2531	1.5005	1.4995	1.2500	1.2490
MFI-2226-12	1 3/8	1 5/8	3/4	1.875	.125	1.3850	1.3182	1.6255	1.6245	1.3750	1.3740
MFI-2226-16	1 3/8	1 5/8	1	1.875	.125	1.3850	1.3182	1.6255	1.6245	1.3750	1.3740
MFI-2428-12	1 1/2	1 3/4	3/4	2.000	.125	1.5100	1.5032	1.7505	1.7495	1.5000	1.4990
MFI-2428-16	1 1/2	1 3/4	1	2.000	.125	1.5100	1.5032	1.7505	1.7495	1.5000	1.4990
MFI-2428-24	1 1/2	1 3/4	1 1/2	2.000	.125	1.5100	1.5032	1.7505	1.7495	1.5000	1.4990

\* after pressfit. Testing methods ► page 75

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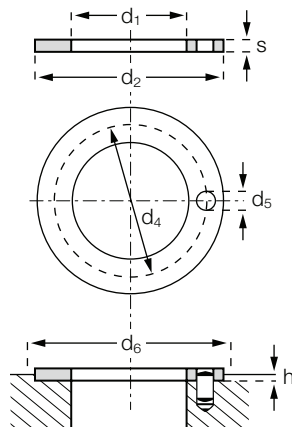
Flange bearing

## Dimensions [Inch]

Part number	d1	d2	b1	d3	b2	d1*		Housing bore		Shaft size	
						max.	min.	max.	min.	max.	min.
<b>MFI-2630-16</b>	1 5/8	1 7/8	1	2.125	.125	1.6350	1.6282	1.8755	1.8745	1.6250	1.6240
<b>MFI-2832-12</b>	1 3/4	2	3/4	2.250	.125	1.7560	1.7532	2.0005	1.9995	1.7500	1.7490
<b>MFI-2832-16</b>	1 3/4	2	1	2.250	.125	1.7560	1.7532	2.0005	1.9995	1.7500	1.7490
<b>MFI-2832-24</b>	1 3/4	2	1 1/2	2.250	.125	1.7560	1.7532	2.0005	1.9995	1.7500	1.7490
<b>MFI-3236-16</b>	2	2 1/4	1	2.500	.125	2.0100	2.0032	2.2550	2.2540	2.0000	1.9990
<b>MFI-3236-24</b>	2	2 1/4	1 1/2	2.500	.125	2.0100	2.0032	2.2550	2.2540	2.0000	1.9990
<b>MFI-3236-32</b>	2	2 1/4	2	2.500	.125	2.0100	2.0032	2.2550	2.2540	2.0000	1.9990

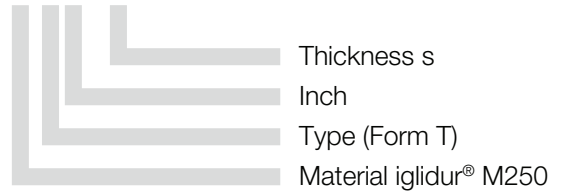
\* after pressfit. Testing methods ► page 75

## Thrust washer



### Order key

### MTI-04



### Dimensions [Inch]

Part number	d1 (nominal)	d1*		d2		s
		max.	min.	max.	min.	
MTI-04	1/4	.2609	.2550	.6200	.6094	.0900
MTI-05	5/16	.3271	.3189	.6874	.6767	.0900
MTI-06	3/8	.3940	.3810	.7409	.7394	.0900
MTI-08	1/2	.5101	.5030	.8200	.8070	.0900
MTI-10	5/8	.6371	.6300	1.0000	.9870	.0940
MTI-12	3/4	.7675	.7600	1.0630	1.0500	.0940
MTI-16	1	1.0200	1.0100	1.5000	1.4843	.1250
MTI-20	1 1/4	1.2998	1.2900	2.1400	2.1220	.0980
MTI-24	1 1/2	1.6000	1.5500	2.6000	2.5500	.1250

\* after pressfit. Testing methods ► page 75



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