

Order key

Type Dimensions [mm]

H1 F M-0304-05

iglidur® material	Form F	Metric	Inner-Ø d1	Outer-Ø d2	Length b1
-------------------	--------	--------	------------	------------	-----------

i Dimensions according to ISO 3547-1 and special dimensions

mch Imperial dimensions available
► From page 1430

d1	d1- Tolerance ³⁾	d2	d3	b1	b2	Part No.
15.0		17.0	23.0	9.0	1.0	H1FM-1517-09
15.0		17.0	23.0	12.0	1.0	H1FM-1517-12
15.0		17.0	23.0	17.0	1.0	H1FM-1517-17
16.0		18.0	24.0	12.0	1.0	H1FM-1618-12
16.0	+0.016	18.0	24.0	17.0	1.0	H1FM-1618-17
16.0	+0.086	18.0	24.0	25.0	1.0	H1FM-1618-25
18.0		20.0	26.0	12.0	1.0	H1FM-1820-12
18.0		20.0	26.0	17.0	1.0	H1FM-1820-17
18.0		20.0	26.0	22.0	1.0	H1FM-1820-22
20.0		23.0	30.0	11.5	1.5	H1FM-2023-11
20.0		23.0	30.0	16.5	1.5	H1FM-2023-16
20.0		23.0	30.0	21.5	1.5	H1FM-2023-21
20.0		23.0	30.0	30.0	1.5	H1FM-2023-30
25.0	+0.020	28.0	35.0	11.5	1.5	H1FM-2528-11
25.0	+0.104	28.0	35.0	16.5	1.5	H1FM-2528-16
25.0		28.0	35.0	21.0	1.5	H1FM-2528-21
30.0		34.0	42.0	16.0	2.0	H1FM-3034-16
30.0		34.0	42.0	26.0	2.0	H1FM-3034-26
35.0		39.0	47.0	16.0	2.0	H1FM-3539-16
35.0		39.0	47.0	26.0	2.0	H1FM-3539-26
40.0	+0.025	44.0	52.0	30.0	2.0	H1FM-4044-30
40.0	+0.125	44.0	52.0	40.0	2.0	H1FM-4044-40
45.0		50.0	58.0	50.0	2.0	H1FM-4550-50

²⁾ 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]

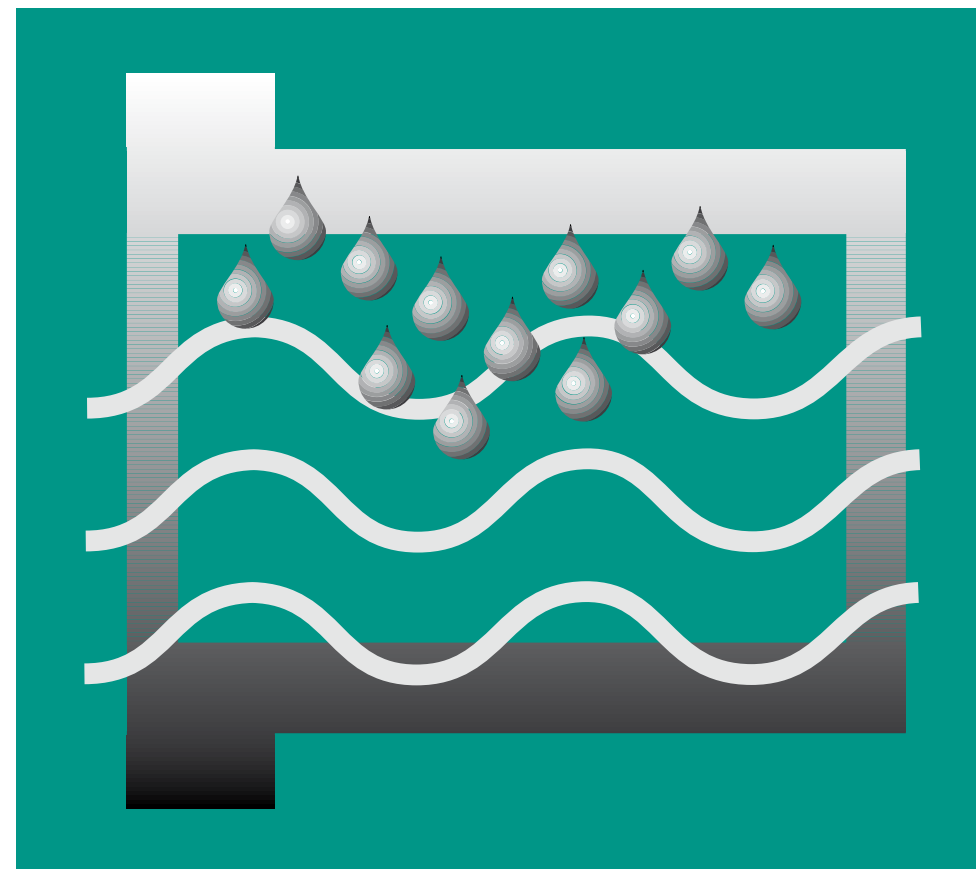
d1	d1- Tolerance ³⁾	d2	d3	b1	b2	Part No.
3.0	+0.006 +0.046	4.5	7.5	5.0	0.75	H1FM-0304-05
5.0		7.0	11.0	5.0	1.0	H1FM-0507-05
6.0		8.0	12.0	4.0	1.0	H1FM-0608-04
6.0	+0.010	8.0	12.0	6.0	1.0	H1FM-0608-06
6.0	+0.058	8.0	12.0	8.0	1.0	H1FM-0608-08
6.0		8.0	12.0	10.0	1.0	H1FM-0608-10
8.0		10.0	15.0	5.5	1.0	H1FM-0810-05
8.0		10.0	15.0	6.5	1.0	H1FM-0810-065
8.0		10.0	15.0	7.5	1.0	H1FM-0810-07
8.0		10.0	15.0	9.5	1.0	H1FM-0810-09
8.0	+0.013	10.0	15.0	10.0	1.0	H1FM-0810-10
10.0	+0.071	12.0	18.0	7.0	1.0	H1FM-1012-07
10.0		12.0	18.0	9.0	1.0	H1FM-1012-09
10.0		12.0	18.0	10.0	1.0	H1FM-1012-10
10.0		12.0	18.0	12.0	1.0	H1FM-1012-12
10.0		12.0	18.0	17.0	1.0	H1FM-1012-17
12.0		14.0	20.0	7.0	1.0	H1FM-1214-07
12.0		14.0	20.0	9.0	1.0	H1FM-1214-09
12.0		14.0	20.0	12.0	1.0	H1FM-1214-12
12.0	+0.016	14.0	20.0	17.0	1.0	H1FM-1214-17
12.0	+0.086	14.0	20.0	20.0	1.0	H1FM-1214-20
14.0		16.0	22.0	12.0	1.0	H1FM-1416-12
14.0		16.0	22.0	17.0	1.0	H1FM-1416-17

³⁾ After press-fit. Testing methods ► Page 57



Couldn't find your size?

Do you need another length, other dimensions or tolerances? You need a particular design or alternative for your application? Please call us. igus® listens to your needs and provides you a solution very quickly.



Extremely long service life under water – iglidur® H370

Wear-resistant – especially under water

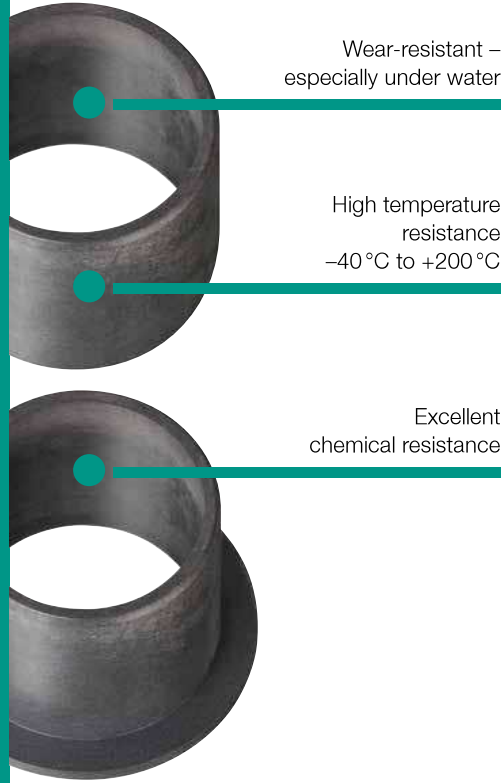
High temperature resistance –40 °C to +200 °C

High chemical resistance

Lubrication and maintenance-free

Standard range from stock





iglidur® H370 is the right solution for underwater applications. The bearings absorb extremely high loads, resist to chemicals and can be used at temperatures up to +200 °C.



When to use it?

- For underwater use
- When it is dependent on high temperature resistance
- When high mechanical loading and wear resistance is required
- When good resistance to chemicals is required



When not to use it?

- When mechanical reaming of the wall surface is necessary
▶ iglidur® M250, page 95
- When high wear resistance in temperatures is required
▶ iglidur® H1, page 297
- For use in dirty surroundings
▶ iglidur® Z, page 255
- When a cost-effective, large-volume solution is required
▶ iglidur® H2, page 329

Typical application areas

- Offshore
- Marine engineering
- Fluid technology
- Packaging
- Plant construction



Available from stock

Detailed information about delivery time online.



Block pricing online

No minimum order value. From batch size 1.



Max. +200 °C
Min. -40 °C



Ø 3–75 mm

More dimensions upon request



Imperial dimensions available

▶ From page 1391



Online product finder

▶ www.igus.eu/iglidur-finder

Material properties

General properties	Unit	iglidur® H370	Testing method
Density	g/cm ³	1.66	
Colour		grey	
Max. moisture absorption at +23 °C/50 % r.h.	% weight	0.1	DIN 53495
Max. water absorption	% weight	0.1	
Coefficient of sliding friction, dynamic, against steel	μ	0.07–0.17	
pv value, max. (dry)	MPa · m/s	0.74	
Mechanical properties			
Flexural modulus	MPa	11,100	DIN 53457
Flexural strength at +20 °C	MPa	135	DIN 53452
Compressive strength	MPa	79	
Max. recommended surface pressure (+20 °C)	MPa	75	
Shore-D hardness		82	DIN 53505
Physical and thermal properties			
Max. long-term application temperature	°C	+200	
Max. short-term application temperature	°C	+240	
Min. long-term application temperature	°C	-40	
Heat conductivity	W/m · K	0.5	ASTM C 177
Coefficient of thermal expansion (at +23 °C)	K ⁻¹ · 10 ⁻⁵	5	DIN 53752
Electrical properties ⁵⁾			
Specific contact resistance	Ωcm	< 10 ⁵	DIN IEC 93
Surface resistance	Ω	< 10 ⁵	DIN 53482

Table 01: Material properties table

⁵⁾ The good conductivity of this plastic material under certain circumstances can favour the generation of corrosion on the metallic contact components.

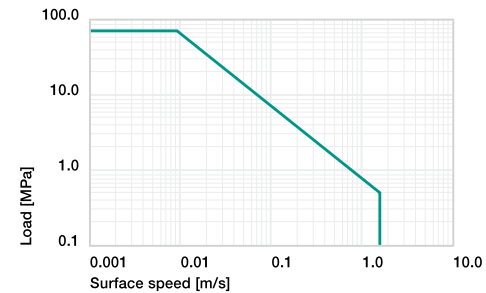


Diagram 01: Permissible pv values for iglidur® H370 bearings with a wall thickness of 1 mm dry running against a steel shaft, at +20 °C, mounted in a steel housing

Moisture absorption

The moisture absorption of iglidur® H370 plain bearings is below 0.1 % weight in standard climatic conditions. The saturation limit in water is also below 0.1 % weight. For this reason, iglidur® H370 plain bearings are often used for underwater applications.

▶ Diagram, www.igus.eu/h370-moisture

Vacuum

In vacuum, the moisture content is released as vapour. Due to its low moisture absorption, use in a vacuum is possible.

Radiation resistance

iglidur® H370 withstands neutron and gamma particle radiation. Plain bearings made from iglidur® H370 are resistant up to a radiation intensity of $2 \cdot 10^2$ Gy.

UV resistance

iglidur® H370 plain bearings are resistant to UV radiation.

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

+ resistant 0 conditionally resistant – not resistant

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

Table 02: Chemical resistance

▶ Chemical table, page 1478

iglidur® H370 is an advanced development of the iglidur® H series. The material is characterised by particularly low water absorption and clearly enhanced wear resistance. With regard to the mechanical and thermal characteristic values, iglidur® H370 shows the same features as iglidur® H.

Mechanical properties

With increasing temperatures, the compressive strength of iglidur® H370 bearings decreases. The diagram 02 shows this inverse relationship. The recommended maximum surface pressure is a mechanical material parameter. No conclusions regarding the tribological properties can be drawn from this.

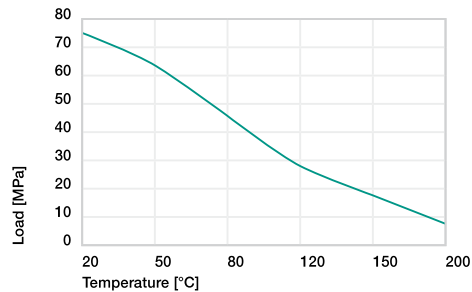


Diagram 02: Permissible maximum surface pressure of as a function of temperature (75 MPa at +20 °C)

Diagram 03 shows the elastic deformation of iglidur® H370 bearings at radial load. At the maximum recommended surface pressure of 75 MPa, the deformation at room temperature is about 2.5%.

► Surface pressure, page 41

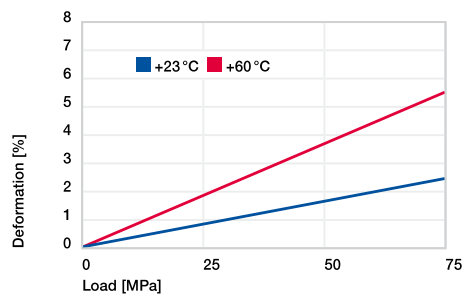


Diagram 03: Deformation under pressure and temperature

Permissible surface speeds

The maximum permitted surface speed is dependent on whether the temperature in the bearing location rises strongly or not. iglidur® H370 is suitable for surface speeds up to 1.2 m/s (rotating) and 4 m/s (linear) respectively. The maximum values stated in table 03 are valid only with minimum pressure loads and are often not attained in practice.

► Surface speed, page 44

m/s	Rotating	Oscillating	Linear
Continuous	1.2	0.8	4
Short-term	1.5	1.1	5

Table 03: Maximum surface speeds

Temperatures

With increasing temperatures, the compressive strength of iglidur® H370 bearings decreases. The temperatures prevailing in the bearing system also have an influence on the bearing wear. The wear rises with increasing temperatures. At temperatures over +100 °C an additional securing is required.

► Application temperatures, page 49

► Additional securing, page 49

Friction and wear

The coefficient of friction alters only little, like the wear resistance with increasing load and surface speed (diagrams 04 and 05).

► Coefficients of friction and surfaces, page 47

► Wear resistance, page 50

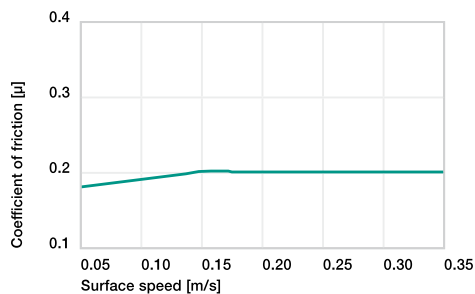


Diagram 04: Coefficient of friction as a function of the surface speed, p = 0.75 MPa

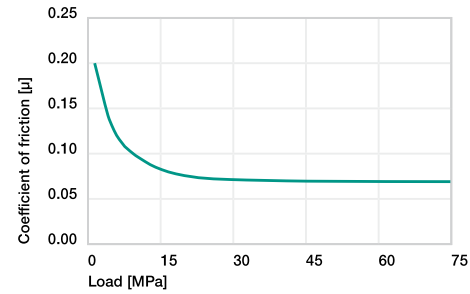


Diagram 05: Coefficient of friction as a function of the pressure, v = 0.01 m/s

Shaft materials

Diagrams 06 and 07 show the test results of iglidur® H370 bearings running against various shaft materials.

For loads up to 2 MPa in rotating applications, the hard-chromed shaft is the best material for the iglidur® H370 bearings. The high wear values with 304 stainless steel shafts, which due to their extremely smooth surfaces are prone to the stick-slip effect, are striking. Despite same values in the lowest range, the HR carbon steel shaft shows already better values than Cf53 with loads of 2 MPa. On the other hand, the 304 stainless steel shaft shows a clear advantage in pivoting movements.

► Shaft materials, page 52

iglidur® H370	Dry	Greases	Oil	Water
C.o.f. μ	0.07–0.17	0.09	0.04	0.04

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

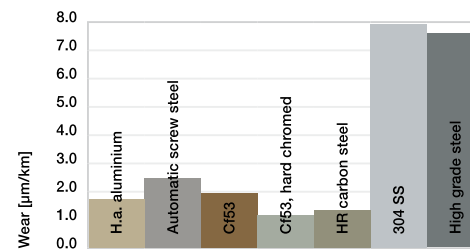


Diagram 06: Wear, rotating with different shaft materials, p = 1 MPa, v = 0.3 m/s

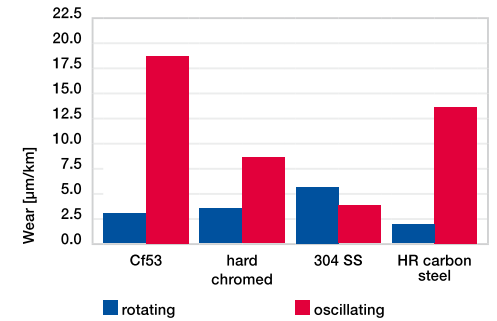


Diagram 07: Wear for rotating and oscillating applications with different shaft materials, p = 2 MPa

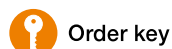
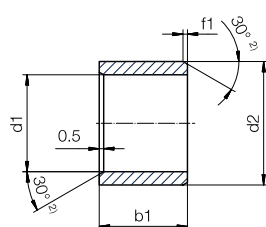
Installation tolerances

iglidur® H370 bearings are standard bearings for shafts with h-tolerance (recommended minimum h9). 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 F10 tolerances. For particular dimensions the tolerance differs depending on the wall thickness (please see product range table).

► Testing methods, page 57

Diameter d1 [mm]	Shaft h9 [mm]	iglidur® H370 F10 [mm]	Housing H7 [mm]
up to 3	0–0.025	+0.006 +0.046	0 +0.010
> 3 to 6	0–0.030	+0.010 +0.058	0 +0.012
> 6 to 10	0–0.036	+0.013 +0.071	0 +0.015
> 10 to 18	0–0.043	+0.016 +0.086	0 +0.018
> 18 to 30	0–0.052	+0.020 +0.104	0 +0.021
> 30 to 50	0–0.062	+0.025 +0.125	0 +0.025
> 50 to 80	0–0.074	+0.030 +0.150	0 +0.030

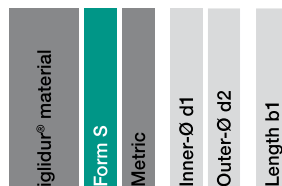
Table 05: Important tolerances for plain bearings according to ISO 3547-1 after pressfit



Order key

Type Dimensions [mm]

H370 S M -0304-03



Dimensions according to ISO 3547-1 and special dimensions

 Imperial dimensions available
 ▶ From page 1406

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
15.0		17.0	15.0	H370SM-1517-15
15.0		17.0	20.0	H370SM-1517-20
15.0		17.0	25.0	H370SM-1517-25
16.0		18.0	15.0	H370SM-1618-15
16.0	+0.016	18.0	20.0	H370SM-1618-20
16.0	+0.086	18.0	25.0	H370SM-1618-25
16.0		20.0	15.0	H370SM-1820-15
18.0		20.0	20.0	H370SM-1820-20
18.0		20.0	25.0	H370SM-1820-25
20.0		23.0	10.0	H370SM-2023-10
20.0		23.0	15.0	H370SM-2023-15
20.0		23.0	20.0	H370SM-2023-20
20.0		23.0	25.0	H370SM-2023-25
20.0		23.0	30.0	H370SM-2023-30
22.0		25.0	15.0	H370SM-2225-15
22.0		25.0	20.0	H370SM-2225-20
22.0		25.0	25.0	H370SM-2225-25
22.0		25.0	30.0	H370SM-2225-30
24.0	+0.020	27.0	15.0	H370SM-2427-15
24.0	+0.104	27.0	20.0	H370SM-2427-20
24.0		27.0	25.0	H370SM-2427-25
24.0		27.0	30.0	H370SM-2427-30
25.0		28.0	15.0	H370SM-2528-15
25.0		28.0	20.0	H370SM-2528-20
25.0		28.0	25.0	H370SM-2528-25
25.0		28.0	30.0	H370SM-2528-30
28.0		32.0	20.0	H370SM-2832-20
28.0		32.0	25.0	H370SM-2832-25

²⁾ 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]

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
3.0	+0.006 +0.046	4.5	3.0	H370SM-0304-03
4.0		5.5	4.0	H370SM-0405-04
4.0		5.5	6.0	H370SM-0405-06
4.0		5.5	12.0	H370SM-0405-12
5.0	+0.010	7.0	5.0	H370SM-0507-05
5.0	+0.058	7.0	10.0	H370SM-0507-10
6.0		8.0	6.0	H370SM-0608-06
6.0		8.0	8.0	H370SM-0608-08
6.0		8.0	10.0	H370SM-0608-10
8.0		10.0	8.0	H370SM-0810-08
8.0		10.0	10.0	H370SM-0810-10
8.0		10.0	12.0	H370SM-0810-12
8.0	+0.013	10.0	15.0	H370SM-0810-15
10.0	+0.071	12.0	8.0	H370SM-1012-08
10.0		12.0	10.0	H370SM-1012-10
10.0		12.0	12.0	H370SM-1012-12
10.0		12.0	15.0	H370SM-1012-15
10.0		12.0	20.0	H370SM-1012-20
12.0		14.0	10.0	H370SM-1214-10
12.0		14.0	12.0	H370SM-1214-12
12.0		14.0	15.0	H370SM-1214-15
12.0	+0.016	14.0	20.0	H370SM-1214-20
13.0	+0.086	15.0	10.0	H370SM-1315-10
13.0		15.0	20.0	H370SM-1315-20
14.0		16.0	15.0	H370SM-1416-15
14.0		16.0	20.0	H370SM-1416-20
14.0		16.0	25.0	H370SM-1416-25

³⁾ After press-fit. Testing methods ▶ Page 57

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
28.0		32.0	30.0	H370SM-2832-30
30.0	+0.020	34.0	20.0	H370SM-3034-20
30.0	+0.104	34.0	25.0	H370SM-3034-25
30.0		34.0	30.0	H370SM-3034-30
30.0		34.0	40.0	H370SM-3034-40
32.0		36.0	20.0	H370SM-3236-20
32.0		36.0	30.0	H370SM-3236-30
32.0		36.0	40.0	H370SM-3236-40
35.0	+0.025	39.0	20.0	H370SM-3539-20
35.0	+0.125	39.0	30.0	H370SM-3539-30
35.0		39.0	40.0	H370SM-3539-40
35.0		39.0	50.0	H370SM-3539-50
40.0		44.0	20.0	H370SM-4044-20
40.0		44.0	30.0	H370SM-4044-30

³⁾ After press-fit. Testing methods ▶ Page 57

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
40.0		44.0	40.0	H370SM-4044-40
40.0		44.0	50.0	H370SM-4044-50
45.0	+0.025	50.0	20.0	H370SM-4550-20
45.0	+0.125	50.0	30.0	H370SM-4550-30
45.0		50.0	40.0	H370SM-4550-40
45.0		50.0	50.0	H370SM-4550-50
50.0		55.0	20.0	H370SM-5055-20
50.0		55.0	30.0	H370SM-5055-30
50.0	+0.000	55.0	40.0	H370SM-5055-40
50.0	+0.100	55.0	50.0	H370SM-5055-50
50.0		55.0	60.0	H370SM-5055-60
55.0	+0.030	60.0	26.0	H370SM-5560-26
60.0	+0.150	65.0	60.0	H370SM-6065-60
75.0		80.0	60.0	H370SM-7580-60

Couldn't find your size?

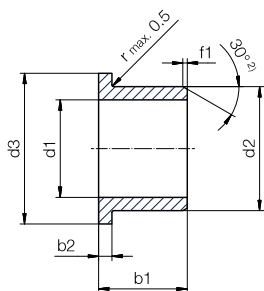
Do you need another length, other dimensions or tolerances? You need a particular design or alternative for your application? Please call us. igus® listens to your needs and provides you a solution very quickly.

Even more dimensions from stock

More than 300 dimensions are now available. Search online for your required bearing.

 ▶ www.igus.eu/iglidur-specialbearings


Flange bearing (Form F)



 Order key

Type	Dimensions [mm]
------	-----------------

H370 F M -04 05-04

iglidur® material	Form F	Metric	Inner-Ø d1	Outer-Ø d2	Length b1
-------------------	--------	--------	------------	------------	-----------

 Dimensions according to ISO 3547-1 and special dimensions

 Imperial dimensions available
 ▶ From page 1431

d1	d1- Tolerance ³⁾	d2	d3	b1	b2	Part No.
16.0		18.0	22.0	10.0	1.0	H370FM-161822-10
16.0		18.0	24.0	10.0	1.0	H370FM-1618-10
16.0		18.0	24.0	12.0	1.0	H370FM-1618-12
16.0		18.0	24.0	17.0	1.0	H370FM-1618-17
16.0	+0.016	18.0	24.0	17.0	1.0	H370FM-1618-17
16.0	+0.086	18.0	24.0	25.0	1.0	H370FM-1618-25
18.0		20.0	26.0	12.0	1.0	H370FM-1820-12
18.0		20.0	26.0	17.0	1.0	H370FM-1820-17
18.0		20.0	26.0	22.0	1.0	H370FM-1820-22
20.0		23.0	30.0	11.5	1.5	H370FM-2023-11
20.0		23.0	30.0	16.0	1.5	H370FM-2023-16
20.0		23.0	30.0	21.5	1.5	H370FM-2023-21
20.0		23.0	30.0	30.0	1.5	H370FM-2023-30
22.0		25.0	32.0	21.5	1.5	H370FM-222532-215
25.0	+0.020	28.0	35.0	11.5	1.5	H370FM-2528-11
25.0	+0.104	28.0	35.0	16.5	1.5	H370FM-2528-16
25.0		28.0	35.0	21.5	1.5	H370FM-2528-21
25.0		28.0	35.0	30.0	1.5	H370FM-2528-30
30.0		34.0	42.0	16.0	2.0	H370FM-3034-16
30.0		34.0	42.0	26.0	2.0	H370FM-3034-26
30.0		34.0	42.0	40.0	2.0	H370FM-3034-40
35.0		39.0	47.0	16.0	2.0	H370FM-3539-16
35.0		39.0	47.0	26.0	2.0	H370FM-3539-26
40.0	+0.025	44.0	52.0	30.0	2.0	H370FM-4044-30
40.0	+0.125	44.0	52.0	40.0	2.0	H370FM-4044-40
45.0		50.0	58.0	50.0	2.0	H370FM-4550-50
50.0		55.0	63.0	50.0	2.0	H370FM-5055-50
60.0	+0.030	65.0	73.0	50.0	2.0	H370FM-6065-50
70.0	+0.150	75.0	83.0	50.0	2.0	H370FM-7075-50

²⁾ 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]

d1	d1- Tolerance ³⁾	d2	d3	b1	b2	Part No.
4.0		5.5	9.5	4.0	0.75	H370FM-0405-04
5.0		7.0	11.0	5.0	1.0	H370FM-0507-05
6.0	+0.010	8.0	12.0	4.0	1.0	H370FM-0608-04
6.0	+0.058	8.0	12.0	6.0	1.0	H370FM-0608-06
6.0		8.0	12.0	8.0	1.0	H370FM-0608-08
8.0		10.0	15.0	5.5	1.0	H370FM-0810-05
8.0		10.0	15.0	6.0	1.0	H370FM-0810-06
8.0		10.0	15.0	7.5	1.0	H370FM-0810-07
8.0		10.0	15.0	9.5	1.0	H370FM-0810-09
8.0		10.0	15.0	10.0	1.0	H370FM-0810-10
8.0	+0.013	10.0	15.0	15.0	1.0	H370FM-0810-15
10.0	+0.071	12.0	18.0	7.0	1.0	H370FM-1012-07
10.0		12.0	18.0	9.0	1.0	H370FM-1012-09
10.0		12.0	18.0	10.0	1.0	H370FM-1012-10
10.0		12.0	18.0	12.0	1.0	H370FM-1012-12
10.0		12.0	18.0	17.0	1.0	H370FM-1012-17
10.0		12.0	18.0	20.0	1.0	H370FM-1012-20
10.0		12.0	18.0	14.5	1.0	H370FM-1012-145
12.0		14.0	20.0	7.0	1.0	H370FM-1214-07
12.0		14.0	20.0	9.0	1.0	H370FM-1214-09
12.0		14.0	20.0	12.0	1.0	H370FM-1214-12
12.0		14.0	20.0	15.0	1.0	H370FM-1214-15
12.0		14.0	20.0	17.0	1.0	H370FM-1214-17
12.0	+0.016	14.0	20.0	20.0	1.0	H370FM-1214-20
14.0	+0.086	16.0	22.0	12.0	1.0	H370FM-1416-12
14.0		16.0	22.0	17.0	1.0	H370FM-1416-17
15.0		17.0	23.0	9.0	1.0	H370FM-1517-09
15.0		17.0	23.0	12.0	1.0	H370FM-1517-12
15.0		17.0	23.0	17.0	1.0	H370FM-1517-17

³⁾ After press-fit. Testing methods ▶ Page 57



The classic with high resistance to media and temperature – iglidur® H

Can be used underwater

For high temperatures

Resistant to chemicals

Lubrication and maintenance-free

Standard range from stock

