Drystar Outline

SO#936FR

Lead Free RoHS

Features

It is the bearing which has sintered porosity of bronze powder on the steel back plate, with improved self-lubrication and wear resistance by adding polytetrafluoro-ethylene (PTFE), which has small friction coefficient, and special filler through impregnation.

Lead-free bearing which can be used without lubrication.

Excellent sliding performance under high load and impact load.

Excellent in wear resistance and long life.

Suitable for sliding motion and continued motion Stick-slip hardly occurs. Silent operation can be achieved.

Precautions for use

Do not grind the bushing inner surface or the outer diameter to change the size.

Polish the surface of the mating surface to the value better than 3 μ mRmax.

Offset the joint of the bushing as far as possible from the maximum load point.

To press fit the bushing, press fit it vertically into the housing.

Special lock is not required for Drystar.

Initial lubrication can make the product life longer.

Operation Range

Lubricating Condition	Max. Allowable Load P N/mm^2				Operation Range Temperature ℃
	Very Slow Movement	Rotation, Oscillation or Sliding	Change of Load 100,000 Times or Less	Change of Load 10 million Times or More	
No lubrication	147	59	29	15	−200 ～+280

Physical Properties

Compression Strength Mpa	Linear Expansion Coefficient ×10^{-6}/℃		Thermal Conductivity W/（m・K）
	Parallel to Bearing Surface	Vertical to Bearing Surface	
304	11	30	42

Dimensions and tolerance for press-fit of bushing and how to obtain maximum press-fit force F (general formula)

F ≒ 0.8tL δ max

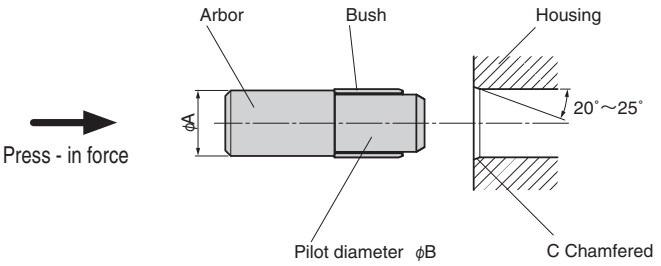
even t : Bush thickness(mm)

L : Bush length(mm)

δ max : Circumferential maximum stress (N)

$$= 18.6\times10^{4}\times \frac{\text{Max. Bush Dia} - \text{Housing Dia}}{\text{Max. Bush Dia}}$$

For max bush dia., use the value measured with "GO ring gauge''



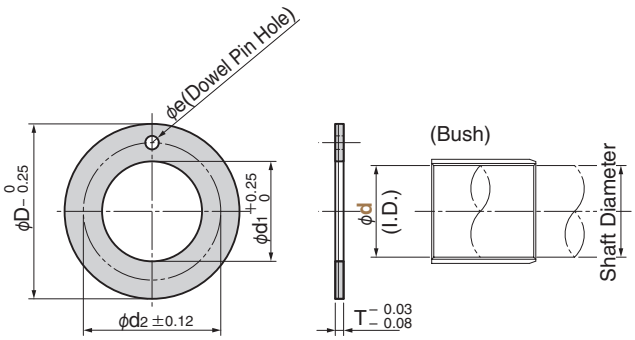
Arbor dia =Housing I.D.–(0.2～ 0.4 mm)

Pilot dia = Bush I.D.–(0.2～ 0.3 mm)

Housing chamfering procedures (C value)

Housing dia	C value
ϕ30 or less	0.8mm
ϕ30≦ϕ50	1.2mm
≦ϕ50	1.6mm

LWM



Material SO#936 FR

Bush I.D. φ d	d1	D	T Thickness	d2	e	Housing Depth	Catalog No.	d
6	8	16	1.5	12	1.300 ~1.100	1.20 ~0.95	LWM	06
8	10	18		14				08
10	12	24		18	1.875 ~1.625			10
12	14	26		20	2.375 ~2.125			12
14	16	30		23				14
16	18	32		25				16
18	20	36		28	3.375 ~3.125			18
20	22	38		30				20
22	24	42		33				22
24	26	44		35				24
25	28	48	2.0	38	4.375 ~4.125	1.70 ~1.45		25
30	32	54		43				30
35	38	62		50				35
40	42	66		54				40
45	48	74		61				45
50	52	78		65				50

Order

Catalog No.	d
LWM	30

For Operation

When a dowel pin is used for retention.

Provide a step down on housing. Make step down dia larger by 0.05 to 0.15 mm. than thrust washer O.D. Make dowel pin top lower by 0.3 to 0.5 mm than washer face.

When adhesive is used for retention.

Adhesives can be used for thrust washer retention but in this case take the max.usable temperature and running condition into consideration for adhesive selection.