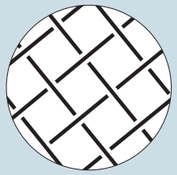
DAIMESH DMM01

Pb Free RoHS ELV

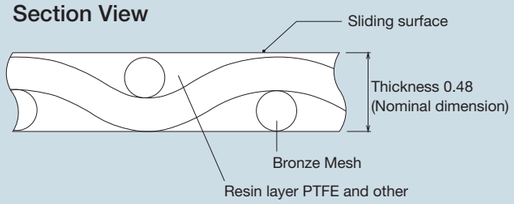
The new generation of sliding material, "DAIMESH DMM01" has excellent performance and high applicability due to the compound of bronze mesh and resin it contains.

Features

1. The wide range of adjustment from micro clearance to negative clearance eliminates noise inside the assembly.
2. A resin layer consisting mostly of PTFE provides smooth operation with stable friction.
3. Compound material of metal mesh and resin offers excellent load, wear and corrosion resistance.
4. This material is applicable to a wide range of service temperatures (-200 – +280°C).
5. Due to thin and flexible wall the material is space saving and enables easy installation.
6. Installation by adhesion is possible.



Section View



Installation procedure

The dimensions of DAIMESH DMM01 can be set as either clearance or negative clearance. Select one of these two installation methods by taking into consideration the balance of rattling and service torque.

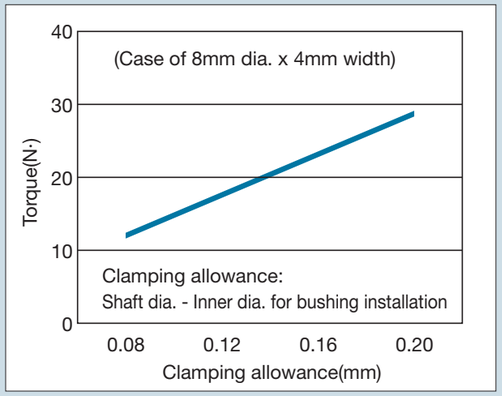
1.Clearance method
Install the bearing and then assemble the shaft. The torque changes corresponding to surface load and surface speed.

2. Negative clearance method
This method should be selected to eliminate noise. Bearing and shaft can be installed together in the housing. Torque is related to the negative clearance condition.

3.Calculation of shaft dimensions (ensure to take max and min values of each dimension into consideration)

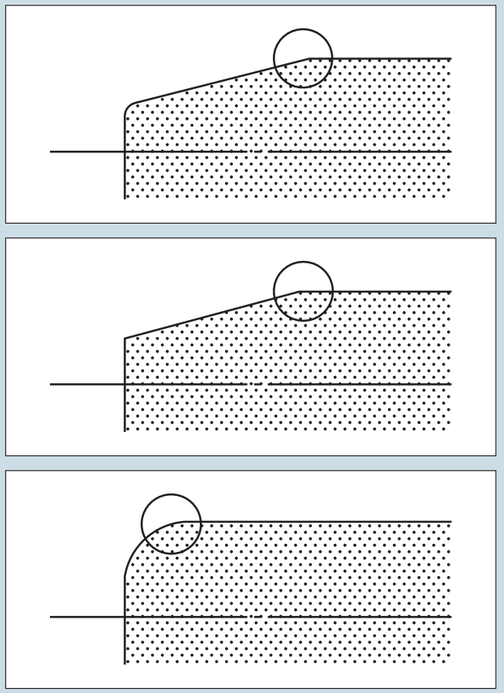
(1) Clearance method
Shaft diameter = Inner diameter of housing - (2 x thickness of bushing) - clearance

(2) Clamping allowance method
Shaft diameter = Inner diameter of housing - (2 x thickness of bushing) + negative clearance



Shaft

1. Process the bottom end of the shaft as shown in the diagram below to avoid damage at the time of installation.



(Note)Make the part marked with a circle (○) smooth.

2. Ensure the shaft roughness is set at 3.2s. For more stable operational use ensure that shaft roughness is set to 1.6s.

Adhesion

DAIMESH DMM01 can be installed by adhesion. This method is effective especially for the installation of flat bar figure and hemispherical cup figure.

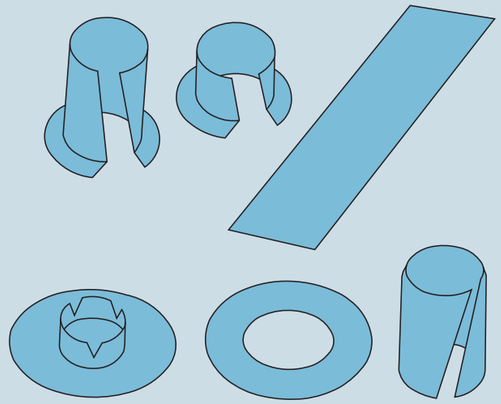
1.It is important to pre-clean both the DAIMESH DMM and the surface to which it will be adhered. Select an appropriate adhesive for accurate adhesion.
2.Please consult us for more information on adhesion.

Physical Characteristics (Typical Values)

Thickness	mm	0.48
Weight	g/cm²	0.18
Tensile Strength	N/cm²	3500
Elongation Percentage	%	25
Coefficient of Linear Thermal Expansion	%(20→250°C)	2.8 (Thickness direction)
Friction Coefficient	–	0.05 – 0.15
Allowable Max. Load	MPa	50
Allowable Max. Speed	m/min	20
Allowable Max. PV value	MPa·m/min	100
Service Temp. Range °C	°C	-200 – +280

Example of Typical Forming

This material can be cut to any figure and formed to any shape.



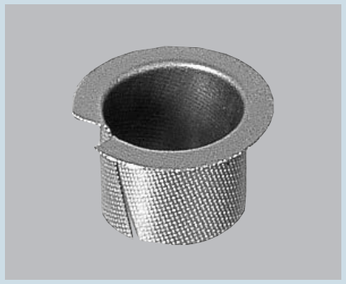
MS DMM01 Flanged Bushing (Bushing Inner Diameter: 3 to 30 mm)

Designation of Part Number

MS ○○ ○○ - ○○ F
- F — Flanged Bushing
- ○○ — Flange O.D.
- ○○ — Length
- ○○ — Nominal I.D.
- MS — Product Symbol

MS 0303-6F

Please specify by Part No.
This product is produced on order only.



Pb Free

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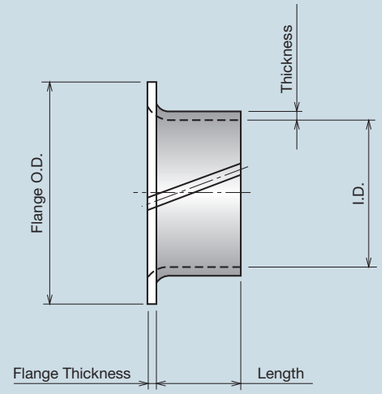
ELV



(Unit: mm)

Bushing I.D.	Recommended Dimension Mating Part		Bushing Dimensions				Part Number & Bushing Length Tolerance ± 0.5															Bushing I.D.
	Housing I.D.	Shaft Dia.	Flange O.D.	Flange Thickness	O.D.	Wall Thickness	3	4	5	7		8	10	12	15	20	25	30	35	40	50	
3	ϕ4	ϕ3	ϕ6	0.5 ±0.05	ϕ4	0.5 $^{0}_{-0.040}$	0303-6F	0304-6F	0305-6F	0307-6F		0308-6F	0310-6F									3
4	ϕ5	ϕ4	ϕ8	0.5 ±0.05	ϕ5	0.5 $^{0}_{-0.040}$	0403-8F	0404-8F	0405-8F	0407-8F		0408-8F	0410-8F	0412-8F	0415-8F							4
5	ϕ6	ϕ5	ϕ10	0.5 ±0.05	ϕ6	0.5 $^{0}_{-0.040}$		0504-10F	0505-10F	0507-10F		0508-10F	0510-10F	0512-10F	0515-10F	0520-10F						5
6	ϕ7	ϕ6	ϕ11	0.5 ±0.05	ϕ7	0.5 $^{0}_{-0.040}$			0605-11F	0607-11F		0608-11F	0610-11F	0612-11F	0615-11F	0620-11F						6
8	ϕ9	ϕ8	ϕ14	0.5 ±0.05	ϕ9	0.5 $^{0}_{-0.040}$				0807-14F		0808-14F	0810-14F	0812-14F	0815-14F	0820-14F	0825-14F	0830-14F				8
10	ϕ11	ϕ10	ϕ16	0.5 ±0.05	ϕ11	0.5 $^{0}_{-0.040}$				1007-16F		1008-16F	1010-16F	1012-16F	1015-16F	1020-16F	1025-16F	1030-16F				10
12	ϕ13	ϕ12	ϕ18	0.5 ±0.05	ϕ13	0.5 $^{0}_{-0.040}$						1208-18F	1210-18F	1212-18F	1215-18F	1220-18F	1225-18F	1230-18F	1235-18F	1240-18F		12
15	ϕ16	ϕ15	ϕ22	0.5 ±0.05	ϕ16	0.5 $^{0}_{-0.040}$						1508-22F	1510-22F	1512-22F	1515-22F	1520-22F	1525-22F	1530-22F	1535-22F	1540-22F		15
18	ϕ19	ϕ18	ϕ25	0.5 ±0.05	ϕ19	0.5 $^{0}_{-0.040}$							1810-25F	1812-25F	1815-25F	1820-25F	1825-25F	1830-25F	1835-25F	1840-25F		18
20	ϕ21	ϕ20	ϕ29	0.5 ±0.05	ϕ21	0.5 $^{0}_{-0.040}$							2010-29F	2012-29F	2015-29F	2020-29F	2025-29F	2030-29F	2035-29F	2040-29F		20
25	ϕ26	ϕ25	ϕ36	0.5 ±0.05	ϕ26	0.5 $^{0}_{-0.040}$									2515-36F	2520-36F	2525-36F	2530-36F	2535-36F	2540-36F	2550-36F	25
30	ϕ31	ϕ30	ϕ42	0.5 ±0.05	ϕ31	0.5 $^{0}_{-0.040}$									3015-42F	3020-42F	3025-42F	3030-42F	3035-42F	3040-42F	3050-42F	30