



MOSTUF

Filament wound Bearing Composites

Maintenance-free



PACIFIC INTERNATIONAL BEARING SALES, INC.
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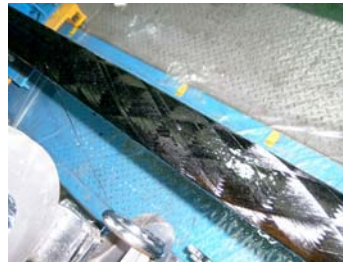
Introduction

The demands for environmental friendly sliding bearing which is maintenance-free even under harsh conditions and free from contaminations caused by grease or oil are increasing gradually.



MOSTUF is a self-lubricating sliding material with high load-carrying capacity to be applied under slow speed rotating, oscillating and reciprocating movements. MOSTUF composite bearings have excellent sliding performance when it is applied to some place where lubrication is not possible or not allowed since it maintains good wear resistance and low coefficient of friction.

Features & Benefits



MOSTUF composite bearings have excellent self-lubricating and wear resistance during non-lubricated conditions since bearing layer consists of specially woven structure of PTFE and synthetic fibers.

Backing layer which is composed of filament wound fiberglass-epoxy has non-corrosive entirely and can support maximum 140MPa of dynamic load. They have strong resistance against shock, vibration load and there is no stick-slip

- Self-lubricating
Bearing layer which consists of specially woven structure of PTFE and synthetic fibers has excellent self-lubricating performance
- Maintenance-free operation
Lubrication is not necessary. It has excellent bearing properties when it is applied to some place where lubrication is not possible or not allowed in terms of machinery structure and operating circumstances



- Low frictional coefficient and low wear rate
Bearing layer which is composed of PTFE and high strength synthetic fiber has low coefficient of friction and low wear rate.
- High load-carrying capacity
Backing layer which consists of filament wound fiberglass-epoxy has high load capacity.
- Multiple motion capability
It is applied for slow speed rotating, oscillating and reciprocating movements.
- Light weight
It is lighter than steel by 75% and aluminum by 30%.
- Non-sensitive to impact and shock load
- Minimize stick-slip
- Non-corrosive material
- Non-metallic material
- Non-conductive material
- Low swelling

Material Structure

MOSTUF composite bearings have two layers that are manufactured by a filament winding process.

Bearing layer is composed of a proprietary designed woven structure of PTFE and high strength synthetic fibers with specially formulated solid lubricant additions. These PTFE fiber and solid lubricant are the main mechanism for allowing the MOSTUF product to operate in a self-lubricating condition.

MOSTUF composite bearings maintain high compressive strength with fiberglass-epoxy backing layer which is manufactured at a specific angle by filament winding process.

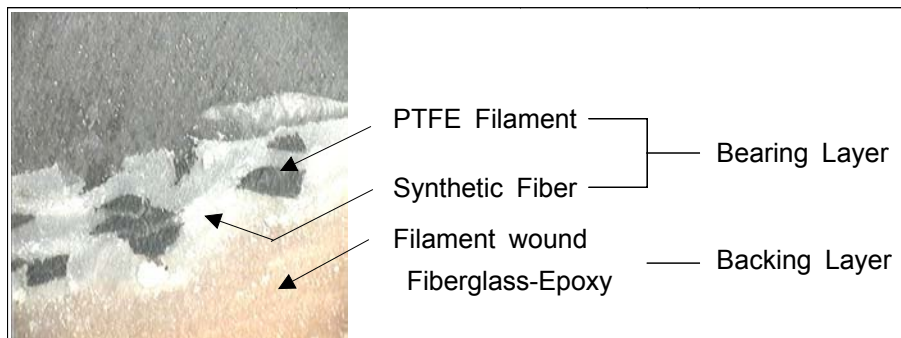


Fig.1 Microsection of MOSTUF -T bearing composite



Applications

MOSTUF composite bearings are sliding bearing to be applied in the condition of non-lubricated high load. They have excellent mechanical properties and fatigue strength. MOSTUF composite bearings are suitable for rotating, oscillating and reciprocating movements under slow speed. And they exhibit excellent performance in vacuum and underwater circumstance.



- **Material Handling Equipment**

Forklifts, Scissor lift



- **Food and Packaging Machinery**

Meat scales, Meat forming machinery,
Food press



- **Valves and Actuators**

Hydraulic & Pneumatic cylinders,
Linear slide, Butterfly valves



- **Construction Equipment**

Excavators, Cranes, Street sweepers



- **Recreation Applications**

Ski lifters, Snow mobiles,
Fitness equipment, Golf carts



- **Agricultural Equipment**

Tractors, Combines, Seed-treatment units



- **Marine Equipment**

Underwater robots, Stern drive on speed motors.



Bearing Comparison

Material Comparison

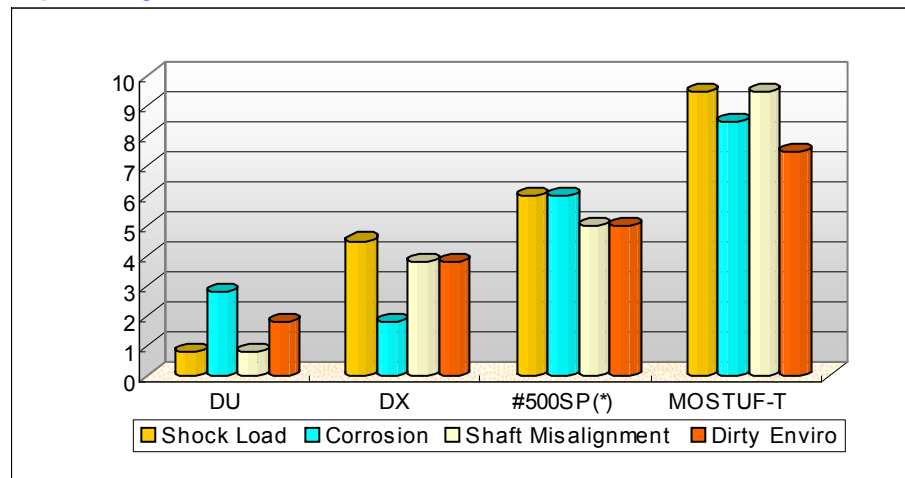
	D U	D X	#500SP(*)	MOSTUF-T
Dynamic Load Capacity(MPa)	140	140	70	140
Maximum Temperature(°C)	280	100	250	160
PV Limit(MPa.m/s)	1.8	2.8(**)	1.65	1.8
Self-lubricating Performance	◎	○	○	◎
Maintenance-free Operation	◎	○	◎	◎
Low Friction	◎	◎	△	◎
Small Operating Clearance	◎	○	◎	□

◎ Excellent ○ Good △ Suitable □ Not suitable

(*) High strength brass with solid lubricant plugs

(**) Grease lubrication

Operating Characteristics





Material Properties

Mechanical

Mechanical properties of MOSTUF -T composite bearing is shown in Table 1.

Properties	Units	Values
Maximum compressive strength	MPa	430
Static loading strength	MPa	240
Radial rupture strength	MPa	550
Hardness	HRM	95
Density	g/cm ³	2.0

Table 1. Mechanical properties of MOSTUF -T bearing composite

Generally, MOSTUF -T composite bearing accompanies permanent set along with deflection under radial load. This permanent set results from compaction between bearing layer and backing layer. Fig. 2 shows the relation between deflection and permanent set under radial load.

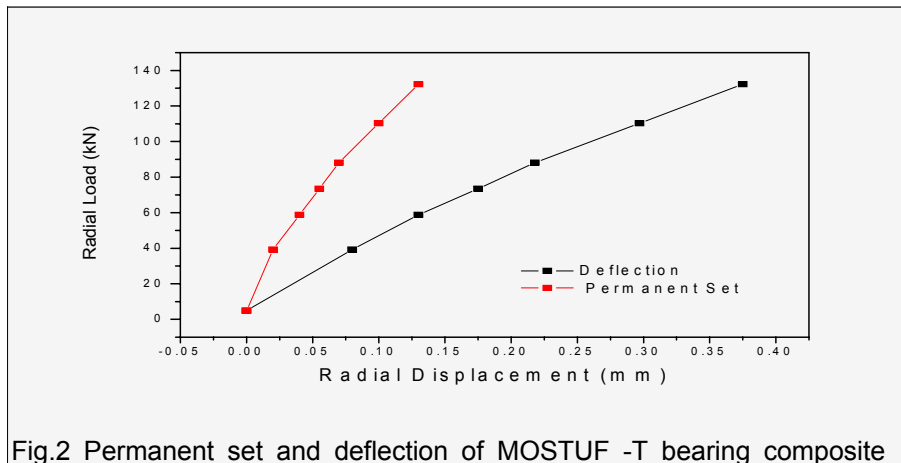


Fig.2 Permanent set and deflection of MOSTUF -T bearing composite

Thermal

Operating temperature of MOSTUF composite bearing is between -100 ~ +160°C. And coefficient of thermal expansion is similar to the coefficient of thermal expansion of steel. So the bearing can exhibit its performance without separating from housing even though exposed extreme temperature change.

	Units	MOSTUF TM Bearing	Steel	Aluminum
Coefficient of thermal expansion(25~150°C)	μm/m?	13 x 10 ⁻⁶	11 x 10 ⁻⁶	24 x 10

Table 2. Coefficient of thermal expansion for MOSTUF bearing composite, steel, and aluminum



Bearing Properties

		Unit	Values
Maximum load	static	MPa	240
	dynamic	MPa	140
Maximum sliding speed		m/sec	0.2
Maximum PV factor		MPa x m/sec	1.8
Frictional coefficient(dry)		-	0.03~0.12
Maximum operating temperature		°C	160
Minimum operating temperature		°C	-100

Table 3. Bearing properties of MOSTUF -T composite bearing.

Coefficient of Friction

The frictional coefficient of MOSTUF composite bearing is 0.03 ~ 0.12, depending upon loads, type of movement, sliding speed, operating temperature, micro finish of mating surface. Fig. 3 shows the change of frictional coefficient under oscillating load. As more loads are imposed, frictional coefficient is declining accordingly.

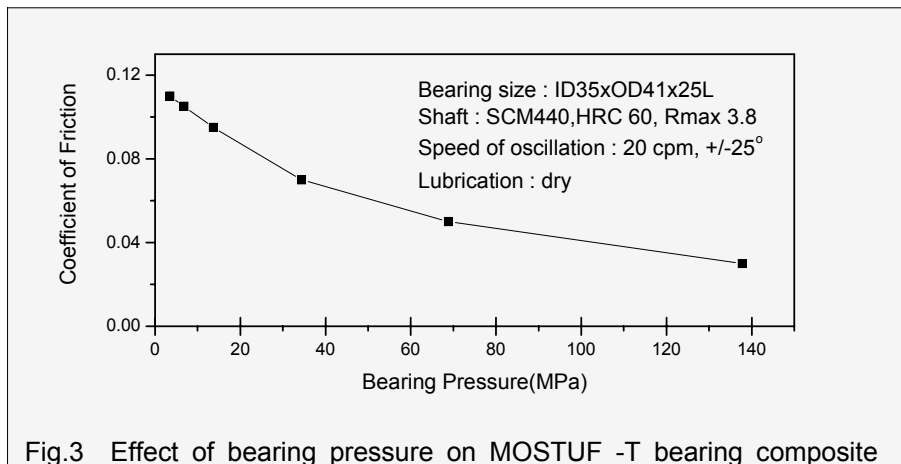


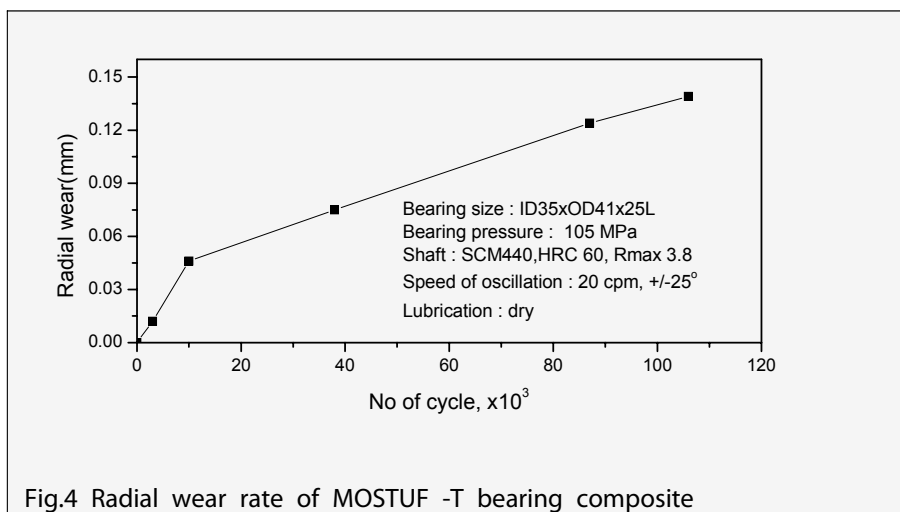
Fig.3 Effect of bearing pressure on MOSTUF -T bearing composite



Bearing wear

Bearing wear occurs due to many kinds of factors. Fig. 4 shows the test results on the condition that the bearing is fixed and the shaft oscillates under bearing pressure of 105 MPa at room temperature.

There shows rapid wear during initial thousands of cycles. During this period, there happens transfer of PTFE on the surface of shaft and redistribution of fiber on the sliding direction, resulting into smooth bearing surfaces.



Electrical

MOSTUF material is an electrical insulator. Therefore electrolytic or galvanic action will not occur between it and the housing and the shaft.

Vacuum

MOSTUF material can be applied in vacuum circumstance since there is no gas generated from bearing even though it is exposed to high temperature.



Chemical resistance

MOSTUF composite bearings have resisting power to various kinds of chemical substances. Also it has dimensional stability even after exposed into sea water or fresh-water for a long time.

Alcohols		Salts	
Methanol	○	Sodium acetate	○
Ethyl alcohol	○	Sodium carbonate	○
Allyl alcohol	×	Ammonium nitrate	○
Butyl alcohol	×	Ammonium chloride	○
Propyl alcohol	○	Magnesium sulphate	○
Isopropanol	○		
Hydroxy acetone	○		
Solvents		Gases	
Acetone	○	Butane	○
Toluene	○	Ozone	○
Methyl ethyl ketone	○	Nitrogen	○
Trichloroethane	×	Natural gas	○
Benzene	×	Acetylene	○
		Hydrogen	○
Acids(10%)		Fluorine	×
Hydrochloric acid	○	Chlorine gas	×
Boric acid	○		
Acetic acid	○	Alkalies(10%)	
Sulphuric acids	○	Sodium hydroxide	○
Nitric acids	×	Calcium hydroxide	○
Carbonic acids	×	Ammonium hydroxide	×
Hydrofluoric acid	×	Magnesium hydroxide	○
Oils		Others	
Gear oil	○	Freon	○
Motor oil	○	Formaldehyde	○
Hydraulic oil	○	Sodium nitrate	○
Linseed oil	○	Ethylene glycol	○
Fuels		Ammonia	×
Kerosene	○	100 °C water	×
Jet fuel	○	○ resistant × non resistant	
Diesel	○		
Petroleum	○		
Sodium hydroxide	○		

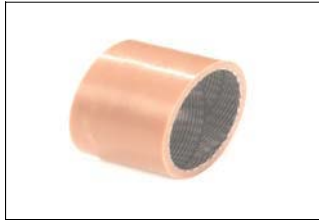
Table 4. Chemical resistance of MOSTUF -T bearing composite



Design Consideration

Configurations

MOSTUF material manufactured by filament winding process is a sliding bearing for many applications by utilizing various kinds of bearing layers and configurations



MOSTUF -T Bearing Composite

- Standard type
- Specially woven (PTFE+synthetic fiber) bearing layer.
- Bearing layer can not be machined.



MOSTUF -P Bearing Composite

- Filled PTFE bearing layer
- Shaft-kind bearing layer
- Bearing layer can be machined.



MOSTUF -S Bearing Composite

- Filament wound high strength synthetic fiber bearing layer with specially formulated solid lubricant additions.
- Bearing layer can be machined.



Special Bore Bearing

- When torque transmission is required.
- For linear applications

Bearing Proportions

Optimum performance for MOSTUF composite bearing can be achieved by specifying a length to inside diameter ration(L/d) ranging from 0.5 to 2.0. When the values of L/d are between above ranges, wear debris can escape from the bearing easily and the bearing became less sensitive to shaft deflection and misalignment. L/d values of more than 2.0 are not recommended but where long bearing has been indicated it is advisable to consider using two bearings with a small gap between them. If the value of the L/d is less than 0.5, there would a possibility for some cracking on the edge of bearing due to stress concentrations.



Bearing Pressure

Bearing pressure is defined as maximum load operated on the projected bearing area. Load capacity will be declined as temperature rises and it will be increased as temperature goes down. And load capacity will be affected by the type of operated load. Generally, load capacity of MOSTUF composite bearing is 140MPa when uniform load is operated on the bearing and 100MPa under dynamic or oscillating load that cause fatigue stress.

Bearing Speed

Allowable maximum speed for MOSTUF composite bearing is 0.2m/s. It exhibits excellent performance when it operates at a slow speed under high load. In case bearing speed is very high, too much of frictional heat would be occurred and allowable bearing pressure would be decreased accordingly.

	Bearing Pressure
	$P(\text{MPa}) = \frac{W}{d \times L}$
	Bearing Speed
	Rotation $V(\text{m/s}) = 5.24 \times 10^{-3} d N$ Oscillation $V(\text{m/s}) = 5.82 \times 10^{-3} dc$
where W = radial load(N), d = bearing ID(mm), L = bearing length(mm), N = rotation speed(revs/min), c = cycling rate(cycles/min), θ = half turning angle(degree)	

Bearing PV

The value of PV can be calculated by multiplying bearing pressure by bearing velocity and it indicates surface running speeds and loads under which a bearing can safely operate. Allowable PV limit for MOSTUF composite bearing is 1.8MPa. m/s. Frictional heat and wear rate would be increased rapidly in case of over PV limit.

Shaft Material

The hardness and micro finish of shaft have important effect on the performance of bearing. The hardness of shaft should be minimum 35 HRC and micro finish should be minimum $0.2 \sim 0.4 \mu\text{m Ra}$ in order to minimize wear rate while keeping low frictional coefficient. When roughly finished shaft is applied to a bearing, bearing wear rates would be increased rapidly.



Installation

MOSTUF composite bearing is installed into a housing by press fit method.

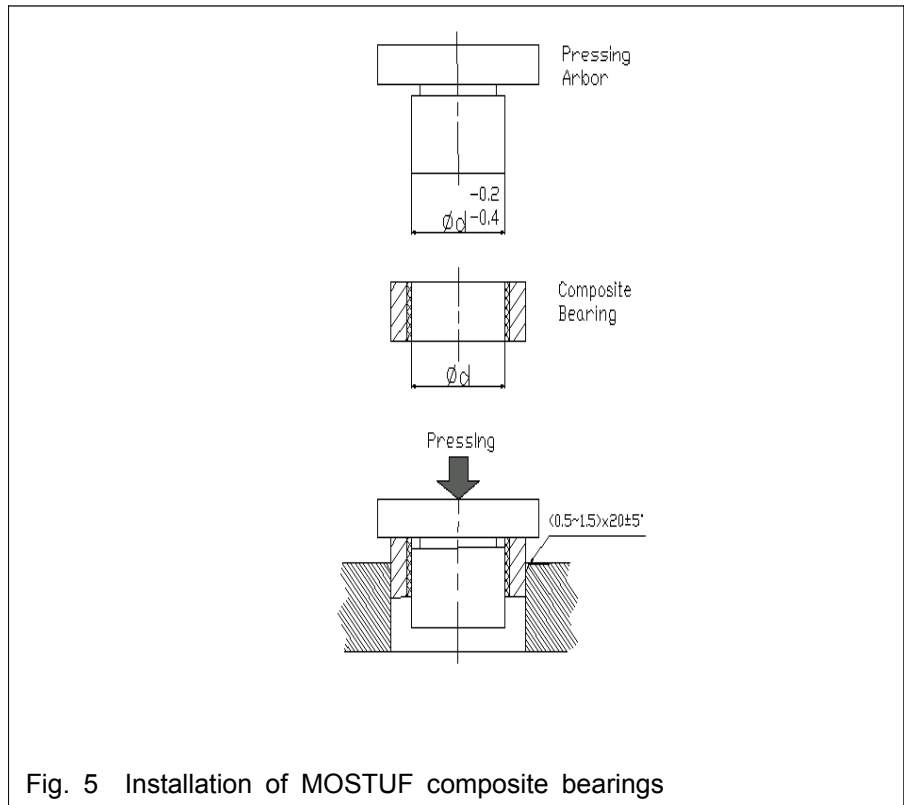


Fig. 5 Installation of MOSTUF composite bearings



Size Tables

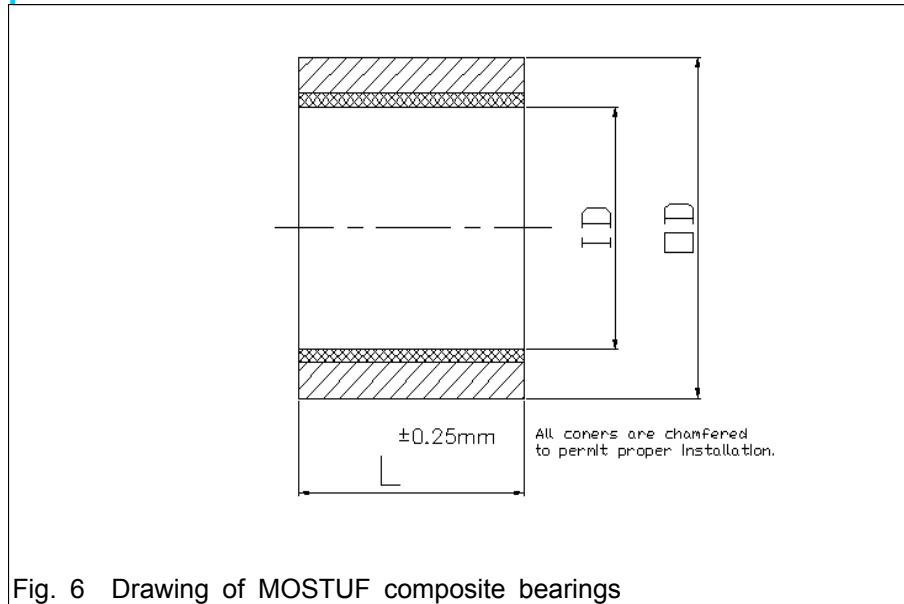


Fig. 6 Drawing of MOSTUF composite bearings

THE Mostuf Bearings Part Numbering System

1. METRIC SIZE

METRIC SIZE	Bearing Layer	I D	O D	L
MOSTUF BEARING	T = Weave PTFE/Synthetic Fiber P = Filled PTFE			
MM	X	XX	XX	XX

Ex ; MMT 708050

(METRIC MOSTUF-T Bearing, ID70 x OD80 x 50 mm Long)

2. INCH SIZE

INCH SIZE	Bearing Layer	Inside Diameter in 1/16"	Outside Diameter in 1/16"	Length in 1/8"
MOSTUF BEARING	T = Weave PTFE/Synthetic Fiber P = Filled PTFE			
BM	X	XX	XX	XX

Ex ; BMT 323608

(INCH MOSTUF-T Bearing, ID 2" x OD 2.25" x 1" Long)

BMP 242814

(INCH MOSTUF-P Bearing, ID 1.5" x OD 1.75" x 1.75"Long)



Mostuf Bearing - Metric Size Table

Bearing Sizes		Standard Length	Recommended Sizes		Interference Fit	Running Clearance
ID	OD		Shaft	Housing		
ø 12 +0.140 +0.090	ø 17 +0.070 +0.040	15,20,25	ø 12h7 0 -0.018	17H7 +0.018 0	0.022~0.070	0.020~0.136
15 +0.145 +0.095	20 +0.075 +0.045	15,20,25	15h7 0 -0.018	20H7 +0.021 0	0.024~0.075	0.020~0.139
16 +0.145 +0.095	21 +0.075 +0.045	15,20,25	16h7 0 -0.018	21H7 +0.021 0	0.024~0.075	0.020~0.139
18 +0.195 +0.115	23 +0.095 +0.045	15,20,25	18h7 0 -0.018	23H7 +0.021 0	0.024~0.095	0.020~0.189
20 +0.196 +0.116	25 +0.096 +0.046	15,20,30	20h7 0 -0.021	25H7 +0.021 0	0.025~0.096	0.020~0.192
22 +0.196 +0.116	27 +0.096 +0.046	15,20,30	22h7 0 -0.021	27H7 +0.021 0	0.025~0.096	0.020~0.192
25 +0.196 +0.116	30 +0.096 +0.046	20,30,40	25h7 0 -0.021	30H7 +0.021 0	0.025~0.096	0.020~0.192
28 +0.200 +0.120	34 +0.100 +0.050	20,30,40	28h7 0 -0.021	34H7 +0.025 0	0.025~0.100	0.020~0.196
30 +0.200 +0.120	36 +0.100 +0.050	20,30,40	30h7 0 -0.021	36H7 +0.025 0	0.025~0.100	0.020~0.196
35 +0.200 +0.120	41 +0.100 +0.050	30,40,50	35h7 0 -0.025	41H7 +0.025 0	0.025~0.100	0.020~0.200
40 +0.200 +0.120	48 +0.100 +0.050	30,40,60	40h7 0 -0.025	48H7 +0.025 0	0.025~0.100	0.020~0.200
45 +0.230 +0.130	53 +0.105 +0.055	30,40,60	45h7 0 -0.025	53H7 +0.030 0	0.025~0.105	0.025~0.230
50 +0.230 +0.130	58 +0.105 +0.055	40,50,60	50h7 0 -0.025	58H7 +0.030 0	0.025~0.105	0.025~0.230
55 +0.245 +0.145	63 +0.120 +0.070	40,55,70	55h7 0 -0.030	63H7 +0.030 0	0.040~0.120	0.025~0.235
60 +0.245 +0.145	70 +0.120 +0.070	40,60,80	60h7 0 -0.030	70H7 +0.030 0	0.040~0.120	0.025~0.235
65 +0.245 +0.145	75 +0.120 +0.070	50,60,80	65h7 0 -0.030	75H7 +0.030 0	0.040~0.120	0.025~0.235
70 +0.245 +0.145	80 +0.120 +0.070	50,70,90	70h7 0 -0.030	80H7 +0.030 0	0.040~0.120	0.025~0.235
75 +0.275 +0.175	85 +0.125 +0.075	50,70,90	75h7 0 -0.030	85H7 +0.035 0	0.040~0.125	0.050~0.265
80 +0.275 +0.175	90 +0.125 +0.075	60,80,100	80h7 0 -0.030	90H7 +0.035 0	0.040~0.125	0.050~0.265
85 +0.275 +0.175	95 +0.125 +0.075	60,80,100	85h7 0 -0.035	95H7 +0.035 0	0.040~0.125	0.050~0.270
90 +0.275 +0.175	105 +0.125 +0.075	60,80,120	90h7 0 -0.035	105H7 +0.035 0	0.050~0.135	0.050~0.270
95 +0.310 +0.185	110 +0.135 +0.085	60,80,120	95h7 0 -0.035	110H7 +0.035 0	0.050~0.135	0.050~0.295
100 +0.310 +0.185	115 +0.135 +0.085	80,100,120	100h7 0 -0.035	115H7 +0.035 0	0.050~0.135	0.050~0.295
110 +0.315 +0.190	125 +0.135 +0.085	80,100,120	110h7 0 -0.035	125H7 +0.040 0	0.050~0.140	0.050~0.300
120 +0.340 +0.215	135 +0.165 +0.090	100,120,150	120h7 0 -0.035	135H7 +0.040 0	0.050~0.165	0.050~0.325
130 +0.340 +0.215	145 +0.165 +0.090	100,120,150	130h7 0 -0.040	145H7 +0.040 0	0.050~0.165	0.050~0.330
140 +0.340 +0.215	155 +0.165 +0.090	100,150,180	140h7 0 -0.040	155H7 +0.040 0	0.050~0.165	0.050~0.330
150 +0.340 +0.215	165 +0.165 +0.090	120,150,180	150h7 0 -0.040	165H7 +0.040 0	0.050~0.165	0.050~0.330

Size not listed above may be quoted upon request.



MOSTUF-T Bearings / Standard Wall I - 1/8"							
Bearing Part No.	Nominal	Standard Lengths	ID	OD	Recommended Sizes		Interference Fit
	ID x OD				Housing	Shaft	
BMT 0812	1/2 x 3/4	1/2, 3/4, 1	0.5040	0.7515	0.7500	0.4990	0.0020
			0.5020	0.7505	0.7495	0.4985	0.0005
BMT 1014	5/8 x 7/8	1/2, 3/4, 1	0.6290	0.8765	0.8750	0.6240	0.0020
			0.6270	0.8755	0.8745	0.6235	0.0005
BMT 1216	3/4 x 1	1/2, 3/4, 1	0.7555	1.0025	1.0000	0.7490	0.0030
			0.7525	1.0005	0.9995	0.7485	0.0005
BMT 1418	7/8 x 1 -1/8	3/4, 7/8, 1 -1/4	0.8805	1.1275	1.1250	0.8745	0.0030
			0.8775	1.1255	1.1245	0.8740	0.0005
BMT 1620	1 x 1 -1/4	3/4, 1, 1 -1/2	1.0055	1.2525	1.2500	0.9990	0.0030
			1.0025	1.2505	1.2495	0.9985	0.0005
BMT 1822	1 -1/8 x 1 -3/8	3/4, 1, 1 -1/2	1.1335	1.3785	1.3750	1.1250	0.0040
			1.1305	1.3765	1.3745	1.1245	0.0015
BMT 2024	1 -1/4 x 1 -1/2	1, 1 -1/4, 1 -1/2	1.2555	1.5025	1.5000	1.2490	0.0030
			1.2525	1.5005	1.4995	1.2485	0.0005
BMT 2226	1 -3/8 x 1 -5/8	1, 1 -1/4, 1 -1/2	1.3830	1.6285	1.6250	1.3745	0.0040
			1.3790	1.6265	1.6245	1.3735	0.0015
BMT 2428	1 -1/2 x 1 -3/4	1 -1/4, 1 -1/2, 2	1.5080	1.7535	1.7500	1.4995	0.0040
			1.5040	1.7515	1.7495	1.4990	0.0015
BMT 2630	1 -5/8 x 1 -7/8	1 -1/4, 1 -1/2, 2	1.6330	1.8785	1.8750	1.6245	0.0040
			1.6290	1.8765	1.8745	1.6240	0.0015
BMT 2832	1 -3/4 x 2	1 -1/4, 1 -1/2, 2	1.7580	2.0035	2.0000	1.7495	0.0040
			1.7540	2.0015	1.9995	1.7490	0.0015
BMT 3236	2 x 2 -1/4	1 -1/2, 2, 3	2.0080	2.2535	2.2505	1.9995	0.0040
			2.0040	2.2515	2.2495	1.9985	0.0010
BMT 3640	2 -1/4 x 2 -1/2	1 -1/2, 2, 3	2.2580	2.5040	2.5005	2.2490	0.0045
			2.2540	2.5020	2.5020	2.2485	0.0015
BMT 3842	2 -3/8 x 2 -5/8	1 -1/2, 2, 3	2.3850	2.6290	2.6255	2.3750	0.0045
			2.3810	2.6270	2.6245	2.3740	0.0015
BMT 4044	2 -1/2 x 2 -3/4	2, 2 -1/2, 3	2.5100	2.7540	2.7505	2.4995	0.0045
			2.5060	2.7520	2.7495	2.4985	0.0015
BMT 4246	2 -5/8 x 2 -7/8	2, 2 -1/2, 3	2.6370	2.8790	2.8755	2.6245	0.0045
			2.6330	2.8770	2.8745	2.6235	0.0015
BMT 4448	2 -3/4 x 3	2, 2 -1/2, 3	2.7620	3.0040	3.0005	2.7495	0.0050
			2.7580	3.0020	2.9990	2.7485	0.0015
BMT 4852	3 x 3 -1/4	2, 2 -1/2, 3	3.0140	3.2540	3.2505	2.9995	0.0050
			3.0100	3.2520	3.2490	2.9985	0.0015
BMT 5256	3 -1/4 x 3 -1/2	2, 2 -	3.2640	3.5040	3.5010	3.2495	0.0050
			3.2600	3.5020	3.4990	3.2485	0.0010
BMT 5660	3 -1/2 x 3 -3/4	2, 4	3.5140	3.7540	3.7510	3.4995	0.0050
			3.5100	3.7520	3.7490	3.4985	0.0010
BMT 6064	3 -3/4 x 4	2, 4	3.7640	4.0040	4.0010	3.7495	0.0050
			3.7600	4.0020	3.9990	3.7485	0.0010
BMT 6468	4 x 4 -1/4	2, 4	4.0140	4.2540	4.2510	3.9995	0.0050
			4.0100	4.2520	4.2490	3.9985	0.0010
BMT 6872	4 -1/4 x 4 -1/2	2, 4	4.2640	4.5040	4.5010	4.2495	0.0050
			4.2600	4.5020	4.4990	4.2485	0.0015
BMT 7276	4 -1/2 x 4 -3/4	2, 4	4.5140	4.7540	4.7510	4.4995	0.0050
			4.5100	4.7520	4.7490	4.4985	0.0010
BMT 7680	4 -3/4 x 5	2, 4	4.7640	5.0040	5.0010	4.7495	0.0050
			4.7600	5.0020	4.9990	4.7485	0.0010
BMT 8084	5 x 5 -1/4	2, 4	5.0140	5.2540	5.2510	4.9995	0.0050
			5.0100	5.2520	5.2490	4.9985	0.0010

Sizes not listed above may be quoted upon request



MOSTUF - T Bearings / Heavy Wall - 1/4"							
Bearing Part No.	Nominal Size	Standard Lengths	ID	OD	Recommended Sizes		Interference Fit
	ID x OD				Housing	Shaft	
BMT 0816	1/2 x 1	1/2, 3/4, 1	0.5040	1.0025	1.0000	0.4990	0.0030
			0.5020	1.0005	0.9995	0.4985	0.0005
BMT 1018	5/8 x 1 -1/8	1/2, 3/4, 1	0.6290	1.1275	1.1250	0.6240	0.0030
			0.6270	1.1255	1.1245	0.6235	0.0005
BMT 1220	3/4 x 1 -1/4	1/2, 3/4, 1	0.7555	1.2525	1.2500	0.7490	0.0030
			0.7525	1.2505	1.2495	0.7485	0.0005
BMT 1422	7/8 x 1 -3/8	3/4, 7/8, 1 -1/4	0.8805	1.3785	1.3750	0.8745	0.0040
			0.8775	1.3765	1.3745	0.8740	0.0015
BMT 1624	1 x 1 -1/2	3/4, 1, 1 -1/2	1.0055	1.5025	1.5000	0.9990	0.0030
			1.0025	1.5005	1.4995	0.9985	0.0005
BMT 1826	1 -1/8 x 1 -5/8	3/4, 1, 1 -1/2	1.1335	1.6285	1.6250	1.1250	0.0040
			1.1305	1.6265	1.6245	1.1245	0.0015
BMT 2028	1 -1/4 x 1 -3/4	1, 1 -1/4, 1 -1/2	1.2555	1.7535	1.7500	1.2490	0.0040
			1.2525	1.7515	1.7495	1.2485	0.0015
BMT 2230	1 -3/8 x 1 -7/8	1, 1 -1/4, 1 -1/2	1.3830	1.8785	1.8750	1.3745	0.0040
			1.3790	1.8765	1.8745	1.3740	0.0015
BMT 2432	1 -1/2 x 2	1 -1/4, 1 -1/2, 2	1.5080	2.0035	2.0000	1.4995	0.0040
			1.5040	2.0015	1.9995	1.4990	0.0015
BMT 2634	1 -5/8 x 2 -1/8	1 -1/4, 1 -1/2, 2	1.6330	2.1285	2.1255	1.6245	0.0040
			1.6290	2.1265	2.1245	1.6240	0.0015
BMT 2836	1 -3/4 x 2 -1/4	1 -1/4, 1 -1/2, 2	1.7580	2.2535	2.2505	1.7495	0.0040
			1.7540	2.2515	2.2495	1.7490	0.0010
BMT 3240	2 x 2 -1/2	1 -1/2, 2, 3	2.0080	2.5040	2.5005	1.9995	0.0045
			2.0040	2.5020	2.4995	1.9985	0.0015
BMT 3644	2 -1/4 x 2 3/4	1 -1/2, 2, 3	2.2580	2.7540	2.7505	2.2490	0.0045
			2.2540	2.7520	2.7495	2.2480	0.0015
BMT 3846	2 -3/8 x 2 -7/8	1 -1/2, 2, 3	2.3850	2.8790	2.8755	2.3750	0.0045
			2.3810	2.8770	2.8745	2.3740	0.0015
BMT 4048	2 -1/2 x 3	2, 2 -1/2, 3	2.5100	3.0040	3.0005	2.4995	0.0050
			2.5060	3.0020	2.9990	2.4990	0.0015
BMT 4250	2 -5/8 x 3 -1/8	2, 2 -1/2, 3	2.6370	3.1290	3.1255	2.6245	0.0050
			2.6330	3.1270	3.1240	2.6240	0.0015
BMT 4452	2 -3/4 x 3 -1/4	2, 2 -1/2, 3	2.7620	3.2540	3.2505	2.7495	0.0050
			2.7580	3.2520	3.2490	2.7485	0.0015
BMT 4856	3 x 3 -1/2	2, 2 -1/2, 3	3.0140	3.5040	3.5010	2.9995	0.0050
			3.0100	3.5020	3.4990	2.9985	0.0010
BMT 5260	3 -1/4 x 3 -3/4	2, 2 -1/2, 3	3.2640	3.7540	3.7510	3.2495	0.0050
			3.2600	3.7520	3.7490	3.2485	0.0010
BMT 5664	3 -1/2 x 4	2, 4	3.5140	4.0040	4.0010	3.4995	0.0050
			3.5100	4.0020	3.9990	3.4985	0.0010
BMT 6068	3 -3/4 x 4 -1/4	2, 4	3.7640	4.2540	4.2510	3.7495	0.0050
			3.7600	4.2520	4.2490	3.7485	0.0010
BMT 6472	4 x 4 -1/2	2, 4	4.0140	4.5040	4.5010	3.9995	0.0050
			4.0100	4.5020	4.4990	3.9985	0.0010
BMT 6876	4 -1/4 x 4 -3/4	2, 4	4.2640	4.7540	4.7510	4.2495	0.0050
			4.2600	4.7520	4.7490	4.2485	0.0010
BMT 7280	4 -1/2 x 5	2, 4	4.5140	5.0040	5.0010	4.4995	0.0050
			4.5100	5.0020	4.9990	4.4985	0.0010
BMT 7684	4 -3/4 x 5 -1/4	2, 4	4.7640	5.2540	5.2510	4.7495	0.0050
			4.7600	5.2520	5.2490	4.7485	0.0010
BMT 8088	5 x 5 -1/2	2, 4	5.0140	5.5040	5.5010	4.9995	0.0050
			5.0100	5.5020	5.4990	4.9985	0.0010

Size not listed above may be quoted upon request.



MOSTUF - T Bearings / Thin Wall - 1/16"							
Bearing Part No.	Nominal Size ID x OD	Standard Lengths	ID	OD	Recommended Sizes		Interference Fit
					Housing	Shaft	
BMT 0810	1/2 x 5/8	1/4, 1/2, 1	0.5040	0.6265	0.6250	0.4990	0.0020
			0.5020	0.6255	0.6245	0.4985	0.0005
BMT 1012	5/8 x 3/4	1/4, 1/2, 1	0.6290	0.7515	0.7500	0.6240	0.0020
			0.6270	0.7505	0.7495	0.6235	0.0005
BMT 1214	3/4 x 7/8	1/2, 3/4, 1	0.7555	0.8765	0.8750	0.7490	0.0020
			0.7525	0.8755	0.8745	0.7485	0.0005
BMT 1416	7/8 x 1	3/4, 7/8, 1 1/4	0.8805	1.0025	1.0000	0.8745	0.0030
			0.8775	1.0005	0.9995	0.8740	0.0005
BMT 1618	1 x 1 -1/8	3/4, 1, 1 -1/2	1.0055	1.1275	1.1250	0.9990	0.0030
			1.0025	1.1255	1.1245	0.9985	0.0005
BMT 1820	1 -1/8 x 1 -1/4	3/4, 1, 1 -1/2	1.1335	1.2525	1.2500	1.1250	0.0030
			1.1305	1.2505	1.2495	1.1245	0.0005
BMT 2022	1 -1/4 x 1 -3/8	1, 1 -1/4, 1 -1/2	1.2555	1.3785	1.3750	1.2490	0.0040
			1.2525	1.3765	1.3745	1.2485	0.0010
BMT 2224	1 -3/8 x 1 -1/2	1, 1 -1/4, 1 -1/2	1.3830	1.5025	1.5000	1.3745	0.0030
			1.3790	1.5005	1.4995	1.3735	0.0005
BMT 2426	1 -1/2 x 1 -5/8	1 -1/4, 1 -1/2, 2	1.5080	1.6285	1.6250	1.4995	0.0040
			1.5040	1.6265	1.6245	1.4990	0.0015
BMT 2628	1 -5/8 x 1 -3/4	1 -1/4, 1 -1/2, 2	1.6330	1.7535	1.7500	1.6245	0.0040
			1.6290	1.7515	1.7495	1.6240	0.0015
BMT 2830	1 -3/4 x 1 -7/8	1 -1/4, 1 -1/2, 2	1.7580	1.8785	1.8750	1.7495	0.0040
			1.7540	1.8765	1.8745	1.7490	0.0015
BMT 3234	2 x 2 -1/8	1 -1/2, 2, 3	2.0080	2.1285	2.1255	1.9995	0.0040
			2.0040	2.1265	2.1245	1.9985	0.0010

Size not listed above may be quoted upon request.



MOSTUF - P Bearings

Bearing Part No.	Nominal Size ID x OD	Standard Lengths	ID	OD	Recommended Sizes		Interference Fit
					Housing	Shaft	
BMP 0812	1/2 x 3/4	1/2, 3/4, 1	0.5040	0.7515	0.7500	0.4995	0.0020
			0.5020	0.7505	0.7495	0.4985	0.0005
BMP 1014	5/8 x 7/8	1/2, 3/4, 1	0.6290	0.8765	0.8750	0.6245	0.0020
			0.6270	0.8755	0.8745	0.6235	0.0005
BMP 1216	3/4 x 1	1/2, 3/4, 1	0.7555	1.0025	1.0000	0.7490	0.0030
			0.7525	1.0005	0.9995	0.7485	0.0005
BMP 1418	7/8 x 1 -1/8	3/4, 7/8, 1 -1/4	0.8805	1.1275	1.1250	0.8745	0.0030
			0.8775	1.1255	1.1245	0.8735	0.0005
BMP 1620	1 x 1 -1/4	3/4, 1, 1 -1/2	1.0055	1.2525	1.2500	0.9995	0.0030
			1.0025	1.2505	1.2495	0.9985	0.0005
BMP 1822	1 -1/8 x 1 -3/8	3/4, 1, 1 -1/2	1.1335	1.3785	1.3750	1.1245	0.0040
			1.1305	1.3765	1.3745	1.1235	0.0015
BMP 2024	1 -1/4 x 1 -1/2	1, 1 -1/4, 1 -1/2	1.2555	1.5025	1.5000	1.2495	0.0030
			1.2525	1.5005	1.4995	1.2485	0.0005
BMP 2226	1 -3/8 x 1 -5/8	1, 1 -1/4, 1 -1/2	1.3830	1.6285	1.6250	1.3745	0.0040
			1.3790	1.6265	1.6245	1.3735	0.0015
BMP 2428	1 -1/2 x 1 -3/4	1 -1/4, 1 -1/2, 2	1.5080	1.7535	1.7500	1.4995	0.0040
			1.5040	1.7515	1.7495	1.4980	0.0015
BMP 2832	1 -3/4 x 2	1 -1/4, 1 -1/2, 2	1.7580	2.0035	2.0000	1.7495	0.0040
			1.7540	2.0015	1.9995	1.7480	0.0015
BMP 3236	2 x 2 -1/4	1 -1/2, 2, 3	2.0080	2.2535	2.2505	1.9995	0.0040
			2.0040	2.2515	2.2495	1.9980	0.0015
BMP 3240	2 x 2 -1/2	1 -1/2, 2, 3	2.0080	2.5040	2.5005	1.9995	0.0045
			2.0040	2.5020	2.4995	1.9980	0.0015
BMP 4044	2 -1/2 x 2 -3/4	2, 2 -1/2, 3	2.5100	2.7540	2.7505	2.4995	0.0045
			2.5060	2.7520	2.7495	2.4975	0.0015
BMP 4048	2 -1/2 x 3	2, 2 -1/2, 3	2.5100	3.0040	3.0005	2.4995	0.0050
			2.5060	3.0020	2.9990	2.4975	0.0015
BMP 4852	3 x 3 -1/4	2, 2 -1/2, 3	3.0140	3.2540	3.2505	2.9995	0.0050
			3.0100	3.2520	3.2490	2.9975	0.0015
BMP 4856	3 x 3 -1/2	2, 2 -1/2, 3	3.0140	3.5040	3.5010	2.9995	0.0050
			3.0100	3.5020	3.4990	2.9975	0.0010
BMP 5664	3 -1/2 x 4	2, 4	3.5140	4.0040	4.0010	3.4995	0.0050
			3.5100	4.0020	3.9990	3.4965	0.0010
BMP 6472	4 x 4 -1/2	2, 4	4.0140	4.5040	4.5010	3.9995	0.0050
			4.0100	4.5020	4.9990	3.9965	0.0010
BMP 8088	5 x 5 -1/2	2, 4	5.0140	5.5040	5.5010	4.9995	0.0050
			5.0100	5.5020	4.48990	4.9960	0.0010

Size not listed above may be quoted upon request.



Machining

Outside Diameter

We recommend to grind the outside diameter of composite bearing which is composed of filament wound fiberglass-epoxy.

Inside Diameter

Inside diameter of MOSTUF -T composite bearing can't be machined. But the inside diameter of MOSTUF - P and MOSTUF - S composite bearing can be machined by a lathe.

Cutoff

It is desirable to utilize a diamond wheel in order to cut composite bearing materials. In case of cutting MOSTUF -T composite bearing on a lathe, it should be cut from inside diameter in order to prevent any damage in bearing layer.