LOADS and SPEEDS

The normal load carrying capacity of OILUBE bearings is expressed as a PV factor (Pressure x Surface Velocity) where —

P = the load in psi on the projected bearing area (Bearing ID x Length).

V = surface velocity of the shaft in feet per minute (sfm)

$$PV = \frac{W}{LD} \times \frac{\pi DN}{12} = \frac{3.14\ WN}{12L}$$

W = total load on bearing (pound)

L = bearing length (inches)

D = ID of bearing (inches)

N = shaft speed (rpm)

Normal Upper Limits of OILUBE Bearing Material

PV	Static (psi)	Dynamic (psi)	Velocity (sfm)
50,000	8,000	2,000	1,200

Normal Limits of Bearing Length

Material	Length to I.D. Ratio	Length to Wall Thickness Ratio
Oilube Bronze	4 to 1	24 to 1
For ratios greater than those shown above please contact us.		

OILUBE BRONZE METRIC TOLERANCES

Nominal Sizes (mm)		Tolerances (in 0.001mm)	
Over	To	I.D.	O.D.
3	5	+20 +0	+40 +19
6	10	+30 +05	+40 +19
10	18	+30 +05	+50 +28
18	30	+30 +05	+60 +35
30	50	+40 +09	+70 +40
50	65	+40 +10	+83 +50

Overall Length

Up	to	40mm	± 0.12mm
40mm	to	55mm	± 0.19mm
55mm	to	76mm	± 0.25mm

Flange Outside diameter

Up	to	30mm	± 0.12mm
30mm	to	70mm	± 0.25mm

Flange Thickness

Up	to	3mm	± 0.07mm
3mm	to	5mm	± 0.13mm

Concentricity

Up	to	40mm	0.07mm
40mm	to	65mm	0.10mm
65mm	to	100mm	0.13mm
OVER	to	100mm	0.18mm

These manufacturing tolerances are the result of a compromise between ASTM-B438-73, and common ISO tolerances for G7-s7. Consider housing bores H7, assembly arbors n6, and shafts f7.

OILUBE MATERIAL SPECIFICATIONS

Composition %	Density (gm/cc)	Porosity (% by Volume)	K Strength Constant	Tensile Strength	Elongation (in 1"%)	Yield Strength PSI	Comparable Designations
Copper 87.5-90.5 Tin 9.5-10.5 Iron 1.0 max. Carbon 1.75 Other Elements 0.5	6.4-6.8	19 min.	26500	14000	1	11000	ASTM B-438-70 GR1 Type II MPIF CT-1000-K26 Mil-B-5687C Type I, Comp. A SAE-841

*Other sizes, tolerances, lubricants and materials are available on special orders.