

Oiles 500HP Hard special copper alloy bearings with embedded solid lubricant



Features

- Bears higher loads than the 500SPs.
- Demonstrates superior wear resistance under high-load and low-speed applications.

Service range		500HP SL1
Lubrication condition	Dry	periodic lubrication
Service temperature range °C	-40~+150	
Allowable max. pressure P N/mm ² [kgf/cm ²]	73 (180) {745 (1,837)}	
Allowable max. velocity V m/s [m/min]	0.10 [6]	0.25 [15]
Allowable max. PV value N/mm ² ·m/s [kgf/cm ² ·m/min]	1.65 [1,010]	3.25 [1,990]

The values in parentheses are static allowable pressures, which are the allowable bearing pressures when accompanied with no sliding or accompanied with sliding at quite low speed not more than 0.0017 m/s [0.1 m/min.].

※Above values are applicable when solid lubricants SL1 are used.

Mechanical properties			
Density	—	g/cm ³	7.6
Tensile strength	JIS Z 2241	N/mm ² [kgf/mm ²]	540 [55]
Tensile elongation at break	JIS Z 2241	%	0.3
Compressive strength	—	N/mm ² [kgf/mm ²]	490 [50] (Note 1)
Hardness	JIS Z 2243	—	HB245
Modulus of longitudinal elasticity.	JIS Z 2241	N/mm ² [kgf/mm ²]	127,000 [13,000]
Co-efficient of linear expansion	—	×10 ⁻⁵ °C ⁻¹	1.8

※The values shown above are typical values, not the standard values.

(Note 1) Compressive strength is 0.2%

⚠ Please indicate the type of motion (rotation, reciprocating, rotation & reciprocating) for custom-made products.

⚠ Solid lubricant, SL401 and SL403 are not lead-free.

HPB

Oiles 500HP Bushings

RoHS

ELV

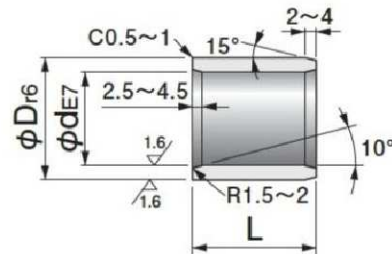
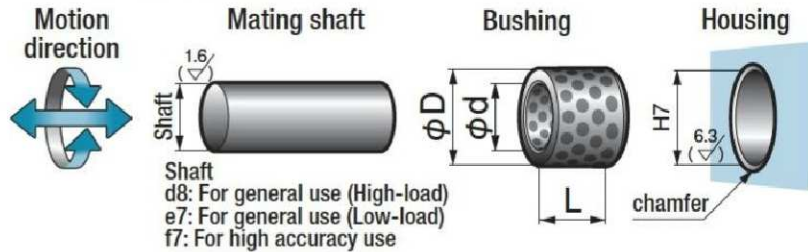
Lead Free



Specify Part No. by required I.D., O.D. and Length.
(e.g.) I.D. is 30mm, O.D. is 40mm, and length is 40mm.

HPB - 304040

Parts No.



Parts No.	I.D.		O.D.		Length		I.D. tolerance after press fitting (reference)
	φd	Tolerance	φD	Tolerance	L	Tolerance	
HPB-203020	20	+0.061 +0.040	30	+0.041 +0.028	20	-0.1 -0.3	+0.037 +0.016
HPB-203025	20	+0.061 +0.040	30	+0.041 +0.028	25	-0.1 -0.3	+0.037 +0.016
HPB-203030	20	+0.061 +0.040	30	+0.041 +0.028	30	-0.1 -0.3	+0.037 +0.016
HPB-253520	25	+0.061 +0.040	35	+0.050 +0.034	20	-0.1 -0.3	+0.030 +0.009
HPB-253530	25	+0.061 +0.040	35	+0.050 +0.034	30	-0.1 -0.3	+0.030 +0.009
HPB-304030	30	+0.061 +0.040	40	+0.050 +0.034	30	-0.1 -0.3	+0.032 +0.011
HPB-304040	30	+0.061 +0.040	40	+0.050 +0.034	40	-0.1 -0.3	+0.032 +0.011
HPB-405040	40	+0.075 +0.050	50	+0.050 +0.034	40	-0.1 -0.3	+0.046 +0.021
HPB-405050	40	+0.075 +0.050	50	+0.050 +0.034	50	-0.1 -0.3	+0.046 +0.021
HPB-506050	50	+0.075 +0.050	60	+0.060 +0.041	50	-0.1 -0.3	+0.045 +0.020
HPB-506060	50	+0.075 +0.050	60	+0.060 +0.041	60	-0.1 -0.3	+0.045 +0.020
HPB-607550	60	+0.090 +0.060	75	+0.062 +0.043	50	-0.1 -0.3	+0.053 +0.023
HPB-607560	60	+0.090 +0.060	75	+0.062 +0.043	60	-0.1 -0.3	+0.053 +0.023

※The I.D. tolerance after press fitting is for reference only.

▲ The dimensional tolerances are the values measured at +25°C.

Selection Guide

Product Information

Plastic Bearing

Multi-layer Bearing

Metallic Bearing

Air Bearings

Slide Shifter

Technical Information

Corporate Profile