

LB-090 Bronze Wrapped Bearings



Structure

The bearings are wrapped from a cold formed homogenous bronze (CuSn8) with exceptional material properties. The standard sizes are fitted with diamond shaped lubrication indents in the bearing surface. These indents serve as lubricant reservoirs to rapidly build up a lubrication film at the start of movement and thereafter reduce the running friction. The material is suitable for construction and agricultural machinery applications.

Chemical Compositions

Material type	Cu%	Sn%	P%	Pb%	Zn%
LB-090	91.3	8.5	0.2	/	/

Tech. Data

Max. load	Static	120N/mm ²	Elongation	40%
	Dynamic	40N/mm ²		Temp.
Max. speed (Lubrication)		2m/s	Friction coefficient	0.08~0.25
Max. PV		2.8N/mm ² *m/s	Thermal conductivity	58W(m*k) ⁻¹
Tensile strength		450N/mm ²	Coef. of thermal expansion	18.5*10 ⁻⁶ *K ⁻¹
Hardness		HB 110-150		

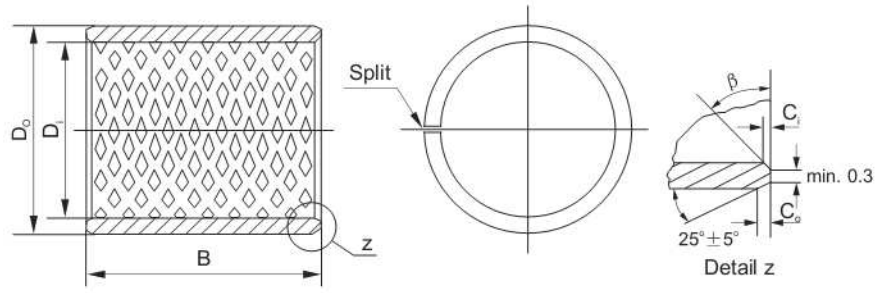
Feature

1. Easy for fitting and lubricating
 2. High load capacity
 3. Inner Diameter machineable parts are available against order
 4. High level thermal conductivity
 5. Minimum overall dimensions
 6. Chemical resistance.
- Initial pre-lubrication at assembly required...

Typical Applications

This type of bushing is widely applied in hoisting machines and other construction machines, automobiles, tractors, trucks, machines tools and some mineral engines. It can be fabricated into bushes, half bearings, flanged bushes, trust washers, spherical bearing and so on.

LB-090 Metric Cylindrical Bushes



ID and OD chamfers

S ₃	C _o	C _i	β	S ₃	C _o	C _i	β
0.75	0.5 ± 0.3	0.25 ± 0.2	35° ± 5°	2.00	1.2 ± 0.4	0.50 ± 0.3	35° ± 5°
1.00	0.6 ± 0.3	0.30 ± 0.2	35° ± 5°	2.50	1.8 ± 0.6	0.60 ± 0.3	45° ± 5°
1.50	0.7 ± 0.3	0.50 ± 0.3	35° ± 5°				

Unit:mm

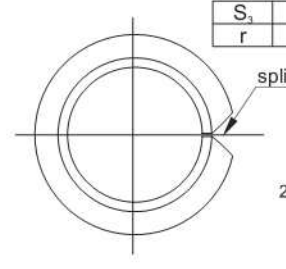
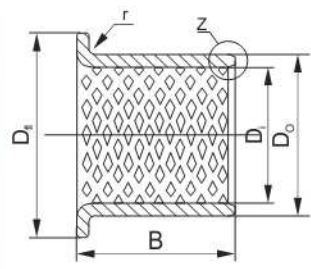
D _i	D _o	B ⁰ _{-0.40}												
		10	15	20	25	30	35	40	50	60	70	80	90	100
10	12	LB-090 1010	LB-090 1015	LB-090 1020										
12	14	LB-090 1210	LB-090 1215	LB-090 1220										
14	16	LB-090 1410	LB-090 1415	LB-090 1420	LB-090 1425									
15	17	LB-090 1510	LB-090 1515	LB-090 1520	LB-090 1525									
16	18	LB-090 1610	LB-090 1615	LB-090 1620	LB-090 1625									
18	20	LB-090 1810	LB-090 1815	LB-090 1820	LB-090 1825									
20	23	LB-090 2010	LB-090 2015	LB-090 2020	LB-090 2025									
22	25	LB-090 2210	LB-090 2215	LB-090 2220	LB-090 2225	LB-090 2230								
24	27		LB-090 2415	LB-090 2420	LB-090 2425	LB-090 2430								
25	28		LB-090 2515	LB-090 2520	LB-090 2525	LB-090 2530								
28	31		LB-090 2815	LB-090 2820	LB-090 2825	LB-090 2830								
30	34		LB-090 3015	LB-090 3020	LB-090 3025	LB-090 3030	LB-090 3035	LB-090 3040						
32	36		LB-090 3215	LB-090 3220	LB-090 3225	LB-090 3230	LB-090 3235	LB-090 3240						
35	39		LB-090 3515	LB-090 3520	LB-090 3525	LB-090 3530	LB-090 3535	LB-090 3540						
40	44			LB-090 4020	LB-090 4025	LB-090 4030	LB-090 4035	LB-090 4040	LB-090 4050					
45	50			LB-090 4520	LB-090 4525	LB-090 4530	LB-090 4535	LB-090 4540	LB-090 4550					
50	55			LB-090 5020	LB-090 5025	LB-090 5030	LB-090 5035	LB-090 5040	LB-090 5050	LB-090 5060				
55	60			LB-090 5520	LB-090 5525	LB-090 5530	LB-090 5535	LB-090 5540	LB-090 5550	LB-090 5560				
60	65				LB-090 6025	LB-090 6030	LB-090 6035	LB-090 6040	LB-090 6050	LB-090 6060	LB-090 6070			
65	70					LB-090 6530	LB-090 6535	LB-090 6540	LB-090 6550	LB-090 6560	LB-090 6570			
70	75					LB-090 7030	LB-090 7035	LB-090 7040	LB-090 7050	LB-090 7060	LB-090 7070	LB-090 7080		
75	80					LB-090 7530	LB-090 7535	LB-090 7540	LB-090 7550	LB-090 7560	LB-090 7570	LB-090 7580		
80	85					LB-090 8030	LB-090 8035	LB-090 8040	LB-090 8050	LB-090 8060	LB-090 8070	LB-090 8080		
85	90					LB-090 8530	LB-090 8535	LB-090 8540	LB-090 8550	LB-090 8560	LB-090 8570	LB-090 8580	LB-090 8590	
90	95					LB-090 9030	LB-090 9035	LB-090 9040	LB-090 9050	LB-090 9060	LB-090 9070	LB-090 9080	LB-090 9090	
95	100							LB-090 9540	LB-090 9550	LB-090 9560	LB-090 9570	LB-090 9580	LB-090 9590	LB-090 95100

LB-090 Metric Cylindrical Bushes

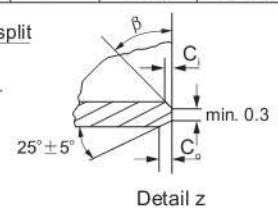
Unit:mm

D _i	D _o	B ⁰ _{-0.40}									
		25	30	35	40	50	60	70	80	90	100
100	105					LB-090 10050	LB-090 10060	LB-090 10070	LB-090 10080	LB-090 10090	LB-090 100100
105	110					LB-090 10550	LB-090 10560	LB-090 10570	LB-090 10580	LB-090 10590	LB-090 105100
110	115					LB-090 11050	LB-090 11060	LB-090 11070	LB-090 11080	LB-090 11090	LB-090 110100
115	120					LB-090 11550	LB-090 11560	LB-090 11570	LB-090 11580	LB-090 11590	LB-090 115100
120	125						LB-090 12060	LB-090 12070	LB-090 12080	LB-090 12090	LB-090 120100
125	130						LB-090 12560	LB-090 12570	LB-090 12580	LB-090 12590	LB-090 125100
130	135						LB-090 13060	LB-090 13070	LB-090 13080	LB-090 13090	LB-090 130100
135	140						LB-090 13560	LB-090 13570	LB-090 13580	LB-090 13590	LB-090 135100
140	145						LB-090 14060	LB-090 14070	LB-090 14080	LB-090 14090	LB-090 140100
145	150						LB-090 14560	LB-090 14570	LB-090 14580	LB-090 14590	LB-090 145100
150	155						LB-090 15060	LB-090 15070	LB-090 15080	LB-090 15090	LB-090 150100
155	160						LB-090 15560	LB-090 15570	LB-090 15580	LB-090 15590	LB-090 155100
160	165						LB-090 16060	LB-090 16070	LB-090 16080	LB-090 16090	LB-090 160100
165	170						LB-090 16560	LB-090 16570	LB-090 16580	LB-090 16590	LB-090 165100
170	175						LB-090 17060	LB-090 17070	LB-090 17080	LB-090 17090	LB-090 170100
175	180						LB-090 17560	LB-090 17570	LB-090 17580	LB-090 17590	LB-090 175100
180	185						LB-090 18060	LB-090 18070	LB-090 18080	LB-090 18090	LB-090 180100
185	190						LB-090 18560	LB-090 18570	LB-090 18580	LB-090 18590	LB-090 185100
190	195						LB-090 19060	LB-090 19070	LB-090 19080	LB-090 19090	LB-090 190100
195	200						LB-090 19560	LB-090 19570	LB-090 19580	LB-090 19590	LB-090 195100
200	205						LB-090 20060	LB-090 20070	LB-090 20080	LB-090 20090	LB-090 200100
205	210						LB-090 20560	LB-090 20570	LB-090 20580	LB-090 20590	LB-090 205100
215	220						LB-090 21560	LB-090 21570	LB-090 21580	LB-090 21590	LB-090 215100
225	230						LB-090 22560	LB-090 22570	LB-090 22580	LB-090 22590	LB-090 225100
230	235						LB-090 23060	LB-090 23070	LB-090 23080	LB-090 23090	LB-090 230100
240	245						LB-090 24060	LB-090 24070	LB-090 24080	LB-090 24090	LB-090 240100
250	255						LB-090 25060	LB-090 25070	LB-090 25080	LB-090 25090	LB-090 250100
260	265						LB-090 26060	LB-090 26070	LB-090 26080	LB-090 26090	LB-090 260100
270	275						LB-090 27060	LB-090 27070	LB-090 27080	LB-090 27090	LB-090 270100
280	285						LB-090 28060	LB-090 28070	LB-090 28080	LB-090 28090	LB-090 280100
290	295						LB-090 29060	LB-090 29070	LB-090 29080	LB-090 29090	LB-090 290100
300	305						LB-090 30060	LB-090 30070	LB-090 30080	LB-090 30090	LB-090 300100

LB-B90 Metric Flange Bushes



S ₂	1.0	1.5	2.0	2.5
r	1 ^{+0.5}	1±0.5	1.5±0.5	2±0.5



Unit:mm

D _i	D _o	D ₁	B ⁰ _{-0.40}													
			15	20	25	30	35	40	50	60	70	80	90			
25	28	35	LB-B90 25150	LB-B90 25200	LB-B90 25250											
30	34	45		LB-B90 30200	LB-B90 30250	LB-B90 30300										
35	39	50		LB-B90 35200	LB-B90 35250	LB-B90 35300	LB-B90 35350									
40	44	55			LB-B90 40250	LB-B90 40300	LB-B90 40350	LB-B90 40400								
45	50	60				LB-B90 45300	LB-B90 45350	LB-B90 45400	LB-B90 45500							
50	55	65				LB-B90 50300	LB-B90 50350	LB-B90 50400	LB-B90 50500							
55	60	70				LB-B90 55300	LB-B90 55350	LB-B90 55400	LB-B90 55500							
60	65	75				LB-B90 60300	LB-B90 60350	LB-B90 60400	LB-B90 60500	LB-B90 60600						
65	70	80				LB-B90 65300	LB-B90 65350	LB-B90 65400	LB-B90 65500	LB-B90 65600						
70	75	85					LB-B90 70350	LB-B90 70400	LB-B90 70500	LB-B90 70600	LB-B90 70700					
75	80	90					LB-B90 75350	LB-B90 75400	LB-B90 75500	LB-B90 75600	LB-B90 75700					
80	85	100					LB-B90 80350	LB-B90 80400	LB-B90 80500	LB-B90 80600	LB-B90 80700	LB-B90 80800				
90	95	110							LB-B90 90500	LB-B90 90600	LB-B90 90700	LB-B90 90800	LB-B90 90900			
100	105	120							LB-B90 100500	LB-B90 100600	LB-B90 100700	LB-B90 100800	LB-B90 100900			
110	115	130							LB-B90 110500	LB-B90 110600	LB-B90 110700	LB-B90 110800	LB-B90 110900			
120	125	140							LB-B90 120500	LB-B90 120600	LB-B90 120700	LB-B90 120800	LB-B90 120900			
130	135	155								LB-B90 130600	LB-B90 130700	LB-B90 130800	LB-B90 130900			
140	145	165								LB-B90 140600	LB-B90 140700	LB-B90 140800	LB-B90 140900			
150	155	180								LB-B90 150600	LB-B90 150700	LB-B90 150800	LB-B90 150900			
160	165	190								LB-B90 160600	LB-B90 160700	LB-B90 160800	LB-B90 160900			
170	175	200								LB-B90 170600	LB-B90 170700	LB-B90 170800	LB-B90 170900			
180	185	215								LB-B90 180600	LB-B90 180700	LB-B90 180800	LB-B90 180900			
190	195	225								LB-B90 190600	LB-B90 190700	LB-B90 190800	LB-B90 190900			
200	205	235								LB-B90 200600	LB-B90 200700	LB-B90 200800	LB-B90 200900			
225	230	260								LB-B90 225600	LB-B90 225700	LB-B90 225800	LB-B90 225900			
250	255	290								LB-B90 250600	LB-B90 250700	LB-B90 250800	LB-B90 250900			
265	270	305								LB-B90 265600	LB-B90 265700	LB-B90 265800	LB-B90 265900			
285	290	325								LB-B90 285600	LB-B90 285700	LB-B90 285800	LB-B90 285900			
300	305	340								LB-B90 300600	LB-B90 300700	LB-B90 300800	LB-B90 300900			

LB-090 Bronze Wrapped Bushes

Chemical composition

Material type	Cu%	Sn%	P%	Pb%	Zn%
LB-090	91.3	8.5	0.2	/	/

Bushes tolerance

Unit:mm

I.D.	10<d≤18	18<d≤30	30<d≤50	50<d≤80	80<d≤120	120<d≤180	180<d≤250	250<d≤300
O.D. tolerance	+0.065 +0.030	+0.075 +0.035	+0.085 +0.045	+0.100 +0.055	+0.120 +0.070	+0.170 +0.100	+0.210 +0.130	+0.260 +0.170
Installed I.D.H9	+0.043 0	+0.052 0	+0.062 0	+0.074 0	+0.087 0	+0.100 0	+0.115 0	+0.130 0

Housing: H7, Shaft: d7

Oil pocket type

Inside Dia. < φ 22

Inside Dia. ≥ φ 22

