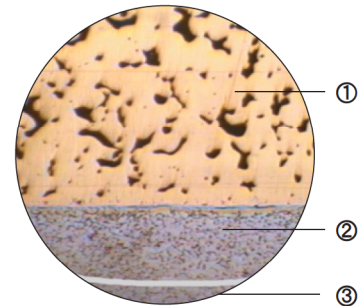


## CSB-800 Bimetal Wrapped Bearings



### Structure

1. **Sinter bronze powder:** good wear resistance and excellent load carrying capacity.
2. **Steel backing:** provides exceptionally high load carrying capacity, excellent heat dissipation.
3. **Copper plating thickness 0.002mm** provides good corrosion resistance.



### Features

Steel shell backed with a lead bronze lining bearing material for oil lubricated applications. This material has high load capacity and good fatigue properties. It is widely used in automotive applications such as compressors, steering gear, power steering, pedal bearings, king-pin bushes, tailgate pivots, mechanical handling and lifting equipment, hydraulic motors, agricultural machinery etc.

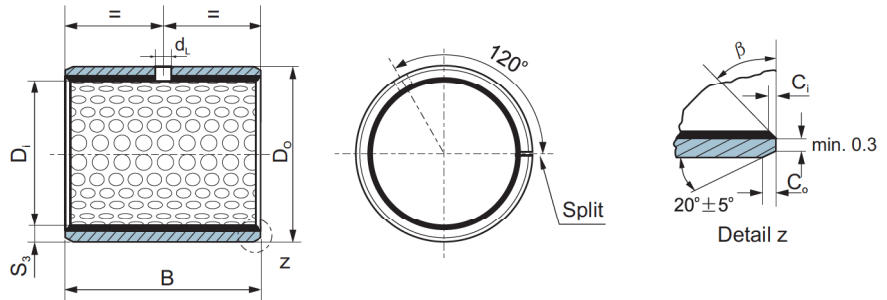
### Chemical Compositions

Material	Alloy composition	International standard	Alloy hardness
CSB-800	CuPb10Sn10	JIS-LBC3/SAE-797	HB70-100
CSB-720	CuPb24Sn4	JIS-LBC6/SAE-799	HB45-70
CSB-700	CuPb30	JIS-KJ3/SAE-48	HB30-45
CSB-J20	AlSn20Cu	JIS-AJL/SAE-783	HB30-40

### CSB-800 Tech. Data

Max. load	Static	250N/mm <sup>2</sup>	Alloy hardness	HB 70~100
	Dynamic	140N/mm <sup>2</sup>		Temp.
Max. speed (Lubricated)		2m/s	Friction coefficient	0.05~0.20
Max. PV		2.8N/mm <sup>2</sup> *m/s	Thermal conductivity	60W(m*k) <sup>-1</sup>
Breaking Load		350N/mm <sup>2</sup>	Coef. of thermal expansion	14*10 <sup>-6</sup> *K <sup>-1</sup>

# CSB-800 Metric Cylindrical Bushes



ID and OD chamfers

S <sub>3</sub>	C <sub>0</sub>	C <sub>1</sub>	β	S <sub>3</sub>	C <sub>0</sub>	C <sub>1</sub>	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 <sub>i</sub>	D <sub>o</sub>	Shaft D <sub>s</sub> h8	Housing H7 D <sub>h</sub>	ID after fixed D <sub>l,a</sub>	Clearance C <sub>0</sub>	Wall thickness S <sub>3</sub>	Oil hole d <sub>L</sub>	B <sup>0</sup> <sub>-0.40</sub>							
								10	15	20	25	30	40	50	
10	12	10 <sub>-0.022</sub>	12 <sup>+0.018</sup>	+0.148 +0.010	0.170 0.010	0.995 0.935	4	CSB-800 1010	CSB-800 1015	CSB-800 1020					
12	14	12 <sub>-0.027</sub>	14 <sup>+0.018</sup>					CSB-800 1210	CSB-800 1215	CSB-800 1220					
14	16	14 <sub>-0.027</sub>	16 <sup>+0.018</sup>					CSB-800 1410	CSB-800 1415	CSB-800 1420					
15	17	15 <sub>-0.027</sub>	17 <sup>+0.018</sup>					CSB-800 1510	CSB-800 1515	CSB-800 1520					
16	18	16 <sub>-0.027</sub>	18 <sup>+0.018</sup>					CSB-800 1610	CSB-800 1615	CSB-800 1620					
18	20	18 <sub>-0.027</sub>	20 <sup>+0.021</sup>					+0.151 +0.010	0.178 0.010	1.490 1.430	6	CSB-800 1810	CSB-800 1815	CSB-800 1820	CSB-800 1825
20	23	20 <sub>-0.033</sub>	23 <sup>+0.021</sup>	+0.161 +0.020	0.194 0.020	CSB-800 2010	CSB-800 2015	CSB-800 2020				CSB-800 2025			
22	25	22 <sub>-0.033</sub>	25 <sup>+0.021</sup>			CSB-800 2210	CSB-800 2215	CSB-800 2220				CSB-800 2225			
24	27	24 <sub>-0.033</sub>	27 <sup>+0.021</sup>			CSB-800 2410	CSB-800 2415	CSB-800 2420				CSB-800 2425	CSB-800 2430		
25	28	25 <sub>-0.033</sub>	28 <sup>+0.021</sup>			CSB-800 2515	CSB-800 2520	CSB-800 2525				CSB-800 2530			
26	30	26 <sub>-0.033</sub>	30 <sup>+0.021</sup>	+0.181 +0.040	0.214 0.040	1.980 1.920	8	CSB-800 2615				CSB-800 2620	CSB-800 2625	CSB-800 2630	
28	32	28 <sub>-0.033</sub>	32 <sup>+0.025</sup>	+0.185 +0.040				0.218 0.040	CSB-800 2815	CSB-800 2820	CSB-800 2825	CSB-800 2830	CSB-800 2840		
30	34	30 <sub>-0.033</sub>	34 <sup>+0.025</sup>						CSB-800 3015	CSB-800 3020	CSB-800 3025	CSB-800 3030	CSB-800 3040		
32	36	32 <sub>-0.039</sub>	36 <sup>+0.025</sup>						CSB-800 3215	CSB-800 3220	CSB-800 3225	CSB-800 3230	CSB-800 3240		
35	39	35 <sub>-0.039</sub>	39 <sup>+0.025</sup>						CSB-800 3520	CSB-800 3525	CSB-800 3530	CSB-800 3540	CSB-800 3550		
38	42	38 <sub>-0.039</sub>	42 <sup>+0.025</sup>						CSB-800 3820	CSB-800 3825	CSB-800 3830	CSB-800 3840	CSB-800 3850		
40	44	40 <sub>-0.039</sub>	44 <sup>+0.025</sup>					CSB-800 4020	CSB-800 4025	CSB-800 4030	CSB-800 4040	CSB-800 4050			

# CSB-800 Metric Cylindrical Bushes

Unit:mm

D <sub>i</sub>	D <sub>o</sub>	Shaft D <sub>s</sub> h8	Housing H7 D <sub>H</sub>	ID after fixed D <sub>i,a</sub>	Clearance C <sub>D</sub>	Wall thickness S <sub>3</sub>	Oil hole d <sub>L</sub>	B <sup>0</sup> <sub>-0.40</sub>											
								25	30	40	50	60	80	90	100				
45	50	45 <sup>-0.039</sup>	50 <sup>+0.025</sup>	+0.225 +0.080	0.264 0.080	2.460 2.400	8	CSB-800 4525	CSB-800 4530	CSB-800 4540	CSB-800 4550								
50	55	50 <sup>-0.039</sup>	55 <sup>+0.030</sup>	+0.230 +0.080	0.269 0.080					CSB-800 5030	CSB-800 5040	CSB-800 5050	CSB-800 5060						
55	60	55 <sup>-0.046</sup>	60 <sup>+0.030</sup>					0.276 0.080			CSB-800 5530	CSB-800 5540	CSB-800 5550	CSB-800 5560					
60	65	60 <sup>-0.046</sup>	65 <sup>+0.030</sup>									CSB-800 6030	CSB-800 6040	CSB-800 6050	CSB-800 6060				
65	70	65 <sup>-0.046</sup>	70 <sup>+0.030</sup>									CSB-800 6530	CSB-800 6540	CSB-800 6550	CSB-800 6560				
70	75	70 <sup>-0.046</sup>	75 <sup>+0.030</sup>									CSB-800 7030	CSB-800 7040	CSB-800 7050	CSB-800 7060	CSB-800 7080			
75	80	75 <sup>-0.046</sup>	80 <sup>+0.030</sup>		+0.235 +0.080		0.281 0.080				CSB-800 7530	CSB-800 7540	CSB-800 7550	CSB-800 7560					
80	85	80 <sup>-0.046</sup>	85 <sup>+0.035</sup>										CSB-800 8040	CSB-800 8050	CSB-800 8060	CSB-800 8080			
85	90	85 <sup>-0.054</sup>	90 <sup>+0.035</sup>					0.289 0.080			CSB-800 8530		CSB-800 8550	CSB-800 8560	CSB-800 8580		CSB-800 85100		
90	95	90 <sup>-0.054</sup>	95 <sup>+0.035</sup>											CSB-800 9050	CSB-800 9060	CSB-800 9080		CSB-800 90100	
95	100	95 <sup>-0.054</sup>	100 <sup>+0.035</sup>												CSB-800 9560	CSB-800 9580	CSB-800 9590	CSB-800 95100	
100	105	100 <sup>-0.054</sup>	105 <sup>+0.035</sup>												CSB-800 10060	CSB-800 10080	CSB-800 10090	CSB-800 100100	
105	110	105 <sup>-0.054</sup>	110 <sup>+0.035</sup>										CSB-800 10560	CSB-800 10580		CSB-800 105100			
110	115	110 <sup>-0.054</sup>	115 <sup>+0.035</sup>										CSB-800 11060	CSB-800 11080		CSB-800 110100			
115	120	115 <sup>-0.054</sup>	120 <sup>+0.035</sup>	+0.240 +0.080	0.303 0.080						CSB-800 11550		CSB-800 11580						
120	125	120 <sup>-0.054</sup>	125 <sup>+0.040</sup>										CSB-800 12050	CSB-800 12060			CSB-800 120100		
125	130	125 <sup>-0.063</sup>	130 <sup>+0.040</sup>														CSB-800 125100		
130	135	130 <sup>-0.063</sup>	135 <sup>+0.040</sup>											CSB-800 13060			CSB-800 130100		
135	140	135 <sup>-0.063</sup>	140 <sup>+0.040</sup>										CSB-800 13560	CSB-800 13580					
140	145	140 <sup>-0.063</sup>	145 <sup>+0.040</sup>										CSB-800 14060	CSB-800 14080		CSB-800 140100			
150	155	150 <sup>-0.063</sup>	155 <sup>+0.040</sup>								CSB-800 15060	CSB-800 15080		CSB-800 150100					