

FB090 BRONZE WRAPPED BEARING

FB090 is a kind of bushes wrapped by bronze strip. The bronze is of particular formulation with high specific gravity and on its surface may be incorporated with spherical or diamond shaped indentations or oil grooves as required by customers. It is of high load capacity and long life. In place of traditional bronze bush, it is more cheap and more compact. It is widely applied in hoisting machines and other construction machines, automobiles, tractors, trucks, machine tools and some mineral engines.



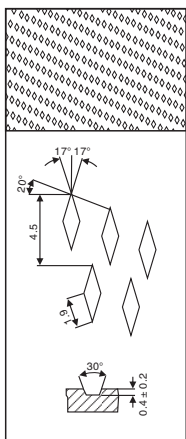
FB092 BRONZE WRAPPED BEARING

FB092 bronze bushing is based on bronze CuSn8P and evenly distributed drilling oil hole on its body. When in assembly, oil or grease should be stored in the holes before bushing is sealed form both ends. FB092 has the advantages of abundant oil storage, easy to assembly, machine the compactness etc. It can replace the conventional whole copper middle load, low speed such as in convey machine, hoisting machine, windlass, aligning machine etc.

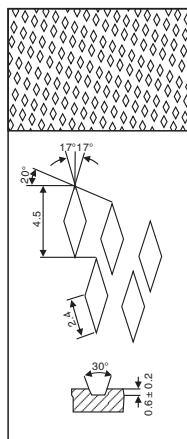
PHYSICAL AND MECHANICAL PROPERTY

Performance index	Data	Performance index	Data
Density	8.8 g/cm ³	Hardness	90~120 HB
Pressure resistance strength	470 N/mm ²	Elongation	40%
Coefficient of heat conduction	58 W/m · K	Alloy material	CuSn8P
Linear expansion coefficient	18.5 × 10 ⁻⁶ /K		

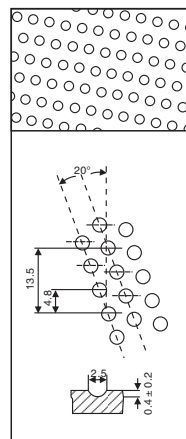
TYPES OF OIL POCKETS (ACCORDING TO DIN 1494/ISO 3547)



Diamond shape for bushings with inside diameter ≤ Φ22



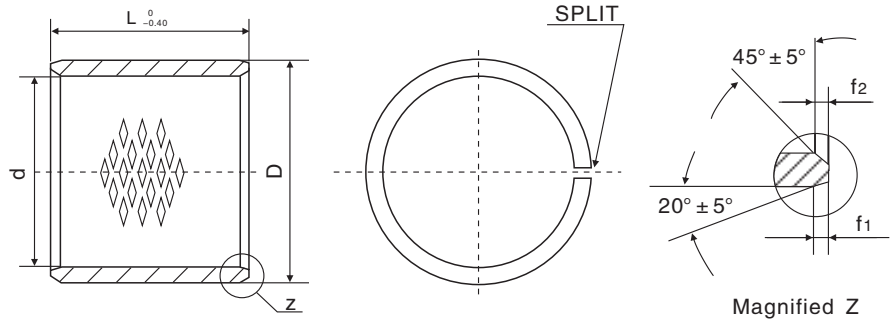
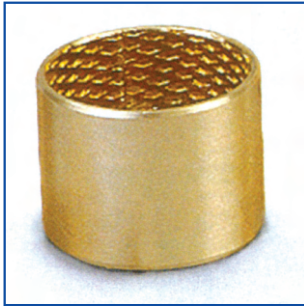
Diamond shape for bushings with inside diameter > Φ22



Spherical shape

CHEMICAL COMPOSITION

MATERIAL	Cu	Sn	P	Pb	Zn
CuSn8	91.3%	8.5%	0.2%		



mm

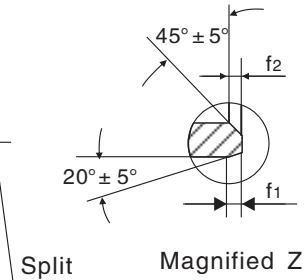
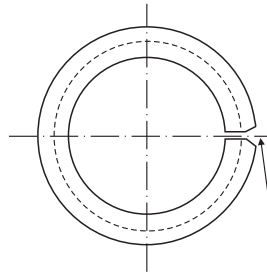
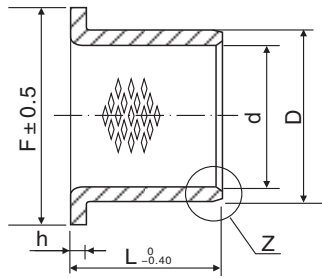
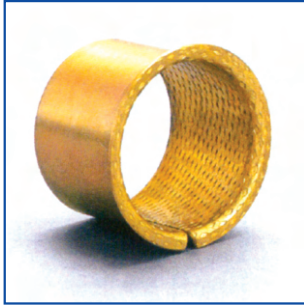
Installed bearing I.D.	O.D.		f ₁	f ₂	L ⁰ _{-0.40}											
					10	15	20	25	30	35	40	50	60	70	80	
10		12			1010	1015	1020									
12		14			1210	1215	1220									
14	+0.060 -0.005	16	+0.065 +0.030	0.5	0.3	1410	1415	1420	1425							
15		17				1510	1515	1520	1525							
16		18				1610	1615	1620	1625							
18		20				1810	1815	1820	1825							
20		23				2010	2015	2020	2025							
22	+0.070 -0.010	25	+0.075 +0.035	0.8	0.4	2210	2215	2220	2225							
24		27					2415	2420	2425	2430						
25		28					2515	2520	2525	2530						
28		32					2815	2820	2825	2830						
30		34					3015	3020	3025	3030	3035	3040				
32	+0.070 -0.010	36	+0.085 +0.045	1.0	0.6		3215	3220	3225	3230	3235	3240				
35		39					3515	3520	3525	3530	3535	3540				
40		44						4020	4025	4030	4035	4040	4050			
45		50						4520	4525	4530	4535	4540	4550			
50		55						5020	5025	5030	5035	5040	5050	5060		
55		60						5520	5525	5530	5535	5540	5550	5560		
60		65							6025	6030	6035	6040	6050	6060	6070	
65	+0.090 -0.015	70	+0.100 +0.055	1.2	0.8				6530	6535	6540	6550	6560	6570		
70		75							7030	7035	7040	7050	7060	7070	7080	
75		80							7530	7535	7540	7550	7560	7570	7580	
80	+0.130 0	85	+0.120 +0.070	1.4					8030	8035	8040	8050	8060	8070	8080	



mm

Installed bearing I.D.	O.D.	f ₁	f ₂	L _{-0.40} ⁰									
				30	35	40	50	60	70	80	90	100	
85	90			8530	8535	8540	8550	8560	8570	8580	8590	85100	
90	95			9030	9035	9040	9050	9060	9070	9080	9090	90100	
95	100					9540	9550	9560	9570	9580	9590	95100	
100	+0.130 0 105	+0.120 +0.070					10050	10060	10070	10080	10090	100100	
105	110						10550	10560	10570	10580	10590	105100	
110	115							11050	11060	11070	11080	11090	110100
115	120							11550	11560	11570	11580	11590	115100
120	125								12060	12070	12080	12090	120100
125	130								12560	12570	12580	12590	125100
130	135								13060	13070	13080	13090	130100
135	140								13560	13570	13580	13590	135100
140	145								14060	14070	14080	14090	140100
145	150	+0.170 +0.100							14560	14570	14580	14590	145100
150	155								15060	15070	15080	15090	150100
155	160								15560	15570	15580	15590	155100
160	165								16060	16070	16080	16090	160100
165	170		1.4 0.8						16560	16570	16580	16590	165100
170	175								17060	17070	17080	17090	170100
175	180								17560	17570	17580	17590	175100
180	185								18060	18070	18080	18090	180100
185	190								18560	18570	18580	18590	185100
190	195								19060	19070	19080	19090	190100
195	+0.140 0 200								19560	19570	19580	19590	195100
200	205	+0.210 +0.130							20060	20070	20080	20090	200100
205	210								20560	20570	20580	20590	205100
215	220								21560	21570	21580	21590	215100
225	230								22560	22570	22580	22590	225100
230	235								23060	23070	23080	23090	230100
240	245								24060	24070	24080	24090	240100
250	255								25060	25070	25080	25090	250100
260	265								26060	26070	26080	26090	260100
270	275	+0.260 +0.170							27060	27070	27080	27090	270100
280	285								28060	28070	28080	28090	280100
290	295								29060	29070	29080	29090	290100
300	305								30060	30070	30080	30090	300100

Recommend housing tolerance:H7
Recommend shaft tolerance:f7



mm

d	D	F	f ₁	f ₂	L _{-0.40} ⁰										
					15	20	25	30	35	40	50	60	70	80	90
25	28	35	0.8	0.4	2515	2520	2525								
30	34	45				3020	3025	3030							
35	39	50	1.0	0.6		3520	3525	3530	3535						
40	44	55					4025	4030	4035	4040					
45	50	60						4530	4535	4540	4550				
50	55	65						5030	5035	5040	5050				
55	60	70						5530	5535	5540	5550				
60	65	75	1.2	0.8				6030	6035	6040	6050	6060			
65	70	80						6530	6535	6540	6550	6560			
70	75	85							7035	7040	7050	7060	7070		
75	80	90							7535	7540	7550	7560	7570		
80	85	100							8035	8040	8050	8060	8070	8080	
90	95	110								9050	9060	9070	9080	9090	
100	105	120								10050	10060	10070	10080	10090	
110	115	130								11050	11060	11070	11080	11090	
120	125	140								12050	12060	12070	12080	12090	
130	135	155									13060	13070	13080	13090	
140	145	165									14060	14070	14080	14090	
150	155	180									15060	15070	15080	15090	
160	165	190									16060	16070	16080	16090	
170	175	200	1.4	0.8							17060	17070	17080	17090	
180	185	215									18060	18070	18080	18090	
190	195	225									19060	19070	19080	19090	
200	205	235									20060	20070	20080	20090	
225	230	260									22560	22570	22580	22590	
250	255	290									25060	25070	25080	25090	
265	270	305									26560	26570	26580	26590	
285	290	325									28560	28570	28580	28590	
300	305	340									30060	30070	30080	30090	

Recommend housing tolerance:H7
Recommend shaft tolerance:f7