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Bronze Wrapped Bearings



Bronze Wrapped Bearings

CSB-090: Bronze wrapped

P57-P61

CSB-09G: Bronze wrapped with graphite

P62

CSB-T90: Bronze wrapped with through holes

P63-P67

CSB-090 Bronze Wrapped Bearings

RoHS



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%
CSB-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		

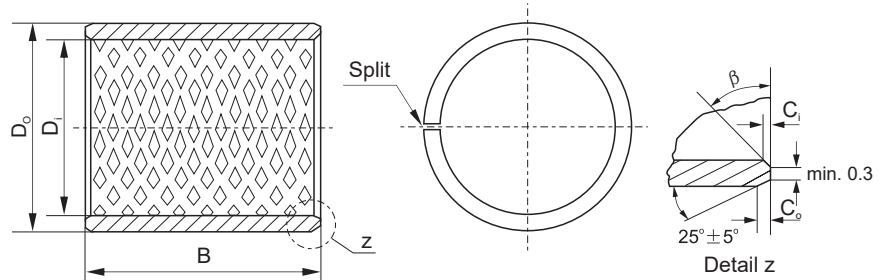
Feature

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.

CSB-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	$35^\circ \pm 5^\circ$	2.00	1.2 ± 0.4	0.50 ± 0.3	$35^\circ \pm 5^\circ$
1.00	0.6 ± 0.3	0.30 ± 0.2	$35^\circ \pm 5^\circ$	2.50	1.8 ± 0.6	0.60 ± 0.3	$45^\circ \pm 5^\circ$
1.50	0.7 ± 0.3	0.50 ± 0.3	$35^\circ \pm 5^\circ$				

Unit:mm

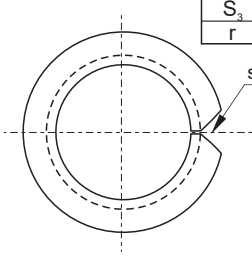
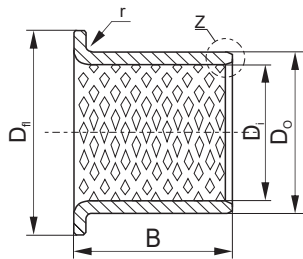
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12	14	CSB-090 1210	CSB-090 1215	CSB-090 1220										
14	16	CSB-090 1410	CSB-090 1415	CSB-090 1420	CSB-090 1425									
15	17	CSB-090 1510	CSB-090 1515	CSB-090 1520	CSB-090 1525									
16	18	CSB-090 1610	CSB-090 1615	CSB-090 1620	CSB-090 1625	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

CSB-090 Metric Cylindrical Bushes

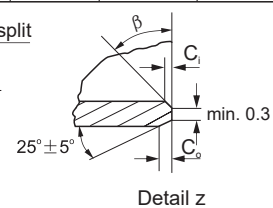
Unit:mm

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

CSB-B90 Metric Flange Bushes



S_3	1.0	1.5	2.0	2.5
r	$1^{+0.5}$	1 ± 0.5	1.5 ± 0.5	2 ± 0.5



Detail z

Unit:mm

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

CSB-090 Bronze Wrapped Bushes

Chemical composition

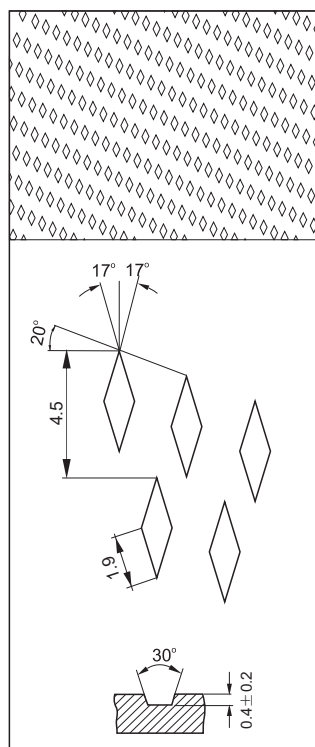
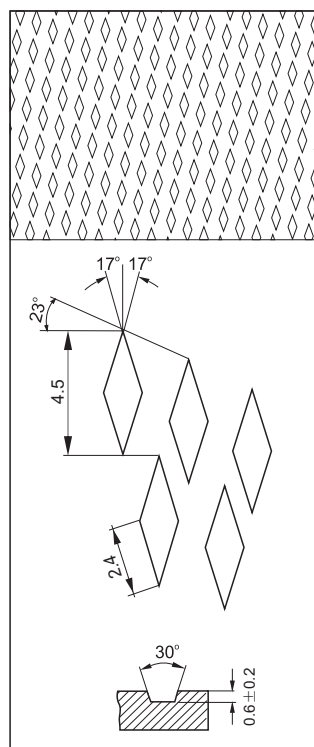
Material type	Cu%	Sn%	P%	Pb%	Zn%
CSB-090	91.3	8.5	0.2	/	/

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. < $\phi 22$

Inside Dia. ≥ $\phi 22$


CSB-09G Bronze Wrapped Bearings with Graphite

RoHS



Structure

These are similar to the CSB-090 range, except there are solid lubricants embedded into the diamond shaped lubrication indents on the bearing surface, which provide good lubrication conditions at the start up stage, even with a lack of oil. It can be used in construction machinery, gear boxes, automotive clutch parts etc.

Chemical Compositions

Material type	Cu%	Sn%	P%	Pb%	Zn%
CSB-09G	91.3	8.5	0.2	/	/

Tech. Data

Max. load	Static	120N/mm ²	Elongation	40%
	Dynamic	40N/mm ²		-100℃ ~+200℃
Max. speed (Lubrication)		2.5m/s	Friction coefficient	0.05~0.25
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		

Feature

1. Easy of fitting and lubrication
 2. High load capacity
 3. Excellent wear resistance with lower friction
 4. High level thermal conductivity
 5. Minimum overall dimensions
 6. Chemical resistance
 7. Can work under dry/marginal lubrication for short period, lower friction factor at initial moving
- Initial pre-lubrication at assembly is 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.

Available

- Cylindrical Bushes
- Thrust Washers
- Non-standard parts as design

CSB-09G supplied by customer ordering, the tolerance is according to CSB-090 standard dimension.

CSB-T90 Bronze Wrapped Bearings with Through Holes

RoHS



Structure

The bearings are wrapped from a cold formed homogenous bronze (CuSn8) with exceptional material properties. The standard sizes incorporate holes, which are dispersed in a special way over the whole bearing surface. These holes 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 etc. where high load and slow movement occur.

Chemical Compositions

Material type	Cu%	Sn%	P%	Pb%	Zn%
CSB-T90	91.3	8.5	0.2	/	/

Tech. Data

Max. load	Static	120N/mm ²	Elongation		40%
	Dynamic	40N/mm ²	Temp.		-100℃~+200℃
Max. speed (Lubrication)		2.5m/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			

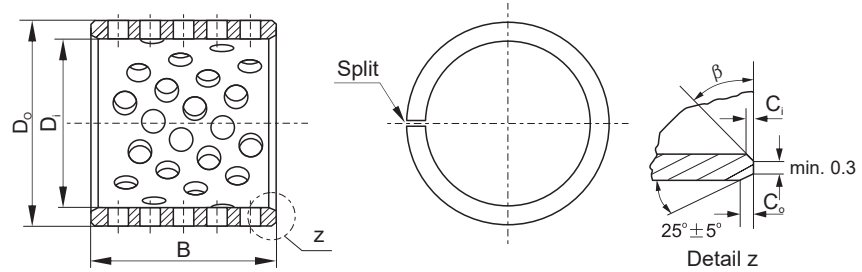
Features

1. Easy of fitting and lubricate
 2. High load capacity
 3. Excellent wear resistance with lower friction
 4. High level thermal conductivity
 5. Minimum overall dimensions
 6. Chemical resistance
 7. Extended service life and lubrication intervals than normal CSB-090 type bearings
 8. Free selection of lubricants
 9. Collection of dust and rub off particles in the holes
- Initial pre-lubrication at assembly is 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, thrust washers, spherical bearing and so on.

CSB-T90 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	$35^\circ \pm 5^\circ$	2.00	1.2 ± 0.4	0.50 ± 0.3	$35^\circ \pm 5^\circ$
1.00	0.6 ± 0.3	0.30 ± 0.2	$35^\circ \pm 5^\circ$	2.50	1.8 ± 0.6	0.60 ± 0.3	$45^\circ \pm 5^\circ$
1.50	0.7 ± 0.3	0.50 ± 0.3	$35^\circ \pm 5^\circ$				

Unit:mm

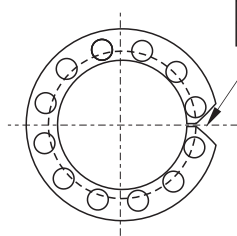
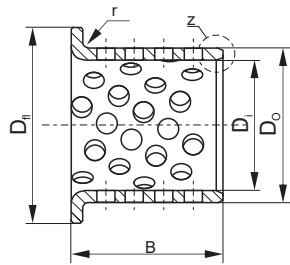
D_i	D_o	$B_{-0.40}^0$												
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12	14	CSB-T90 1210	CSB-T90 1215	CSB-T90 1220										
14	16	CSB-T90 1410	CSB-T90 1415	CSB-T90 1420	CSB-T90 1425									
15	17	CSB-T90 1510	CSB-T90 1515	CSB-T90 1520	CSB-T90 1525									
16	18	CSB-T90 1610	CSB-T90 1615	CSB-T90 1620	CSB-T90 1625									
18	20	CSB-T90 1810	CSB-T90 1815	CSB-T90 1820	CSB-T90 1825									
20	23	CSB-T90 2010	CSB-T90 2015	CSB-T90 2020	CSB-T90 2025									
22	25	CSB-T90 2210	CSB-T90 2215	CSB-T90 2220	CSB-T90 2225	CSB-T90 2230								
24	27		CSB-T90 2415	CSB-T90 2420	CSB-T90 2425	CSB-T90 2430								
25	28		CSB-T90 2515	CSB-T90 2520	CSB-T90 2525	CSB-T90 2530								
28	31		CSB-T90 2815	CSB-T90 2820	CSB-T90 2825	CSB-T90 2830								
30	34		CSB-T90 3015	CSB-T90 3020	CSB-T90 3025	CSB-T90 3030	CSB-T90 3035	CSB-T90 3040						
32	36		CSB-T90 3215	CSB-T90 3220	CSB-T90 3225	CSB-T90 3230	CSB-T90 3235	CSB-T90 3240						
35	39		CSB-T90 3515	CSB-T90 3520	CSB-T90 3525	CSB-T90 3530	CSB-T90 3535	CSB-T90 3540						
40	44			CSB-T90 4020	CSB-T90 4025	CSB-T90 4030	CSB-T90 4035	CSB-T90 4040	CSB-T90 4050					
45	50			CSB-T90 4520	CSB-T90 4525	CSB-T90 4530	CSB-T90 4535	CSB-T90 4540	CSB-T90 4550					
50	55			CSB-T90 5020	CSB-T90 5025	CSB-T90 5030	CSB-T90 5035	CSB-T90 5040	CSB-T90 5050	CSB-T90 5060				
55	60			CSB-T90 5520	CSB-T90 5525	CSB-T90 5530	CSB-T90 5535	CSB-T90 5540	CSB-T90 5550	CSB-T90 5560				
60	65				CSB-T90 6025	CSB-T90 6030	CSB-T90 6035	CSB-T90 6040	CSB-T90 6050	CSB-T90 6060	CSB-T90 6070			
65	70					CSB-T90 6530	CSB-T90 6535	CSB-T90 6540	CSB-T90 6550	CSB-T90 6560	CSB-T90 6570			
70	75					CSB-T90 7030	CSB-T90 7035	CSB-T90 7040	CSB-T90 7050	CSB-T90 7060	CSB-T90 7070	CSB-T90 7080		
75	80					CSB-T90 7530	CSB-T90 7535	CSB-T90 7540	CSB-T90 7550	CSB-T90 7560	CSB-T90 7570	CSB-T90 7580		
80	85					CSB-T90 8030	CSB-T90 8035	CSB-T90 8040	CSB-T90 8050	CSB-T90 8060	CSB-T90 8070	CSB-T90 8080		
85	90					CSB-T90 8530	CSB-T90 8535	CSB-T90 8540	CSB-T90 8550	CSB-T90 8560	CSB-T90 8570	CSB-T90 8580	CSB-T90 8590	
90	95					CSB-T90 9030	CSB-T90 9035	CSB-T90 9040	CSB-T90 9050	CSB-T90 9060	CSB-T90 9070	CSB-T90 9080	CSB-T90 9090	
95	100							CSB-T90 9540	CSB-T90 9550	CSB-T90 9560	CSB-T90 9570	CSB-T90 9580	CSB-T90 9590	CSB-T90 95100

CSB-T90 Metric Cylindrical Bushes

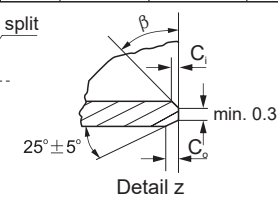
Unit:mm

D _i	D _o	B _{-0.40} ⁰									
		25	30	35	40	50	60	70	80	90	100
100	105					CSB-T90 10050	CSB-T90 10060	CSB-T90 10070	CSB-T90 10080	CSB-T90 10090	CSB-T90 100100
105	110					CSB-T90 10550	CSB-T90 10560	CSB-T90 10570	CSB-T90 10580	CSB-T90 10590	CSB-T90 105100
110	115					CSB-T90 11050	CSB-T90 11060	CSB-T90 11070	CSB-T90 11080	CSB-T90 11090	CSB-T90 110100
115	120					CSB-T90 11550	CSB-T90 11560	CSB-T90 11570	CSB-T90 11580	CSB-T90 11590	CSB-T90 115100
120	125						CSB-T90 12060	CSB-T90 12070	CSB-T90 12080	CSB-T90 12090	CSB-T90 120100
125	130						CSB-T90 12560	CSB-T90 12570	CSB-T90 12580	CSB-T90 12590	CSB-T90 125100
130	135						CSB-T90 13060	CSB-T90 13070	CSB-T90 13080	CSB-T90 13090	CSB-T90 130100
135	140						CSB-T90 13560	CSB-T90 13570	CSB-T90 13580	CSB-T90 13590	CSB-T90 135100
140	145						CSB-T90 14060	CSB-T90 14070	CSB-T90 14080	CSB-T90 14090	CSB-T90 140100
145	150						CSB-T90 14560	CSB-T90 14570	CSB-T90 14580	CSB-T90 14590	CSB-T90 145100
150	155						CSB-T90 15060	CSB-T90 15070	CSB-T90 15080	CSB-T90 15090	CSB-T90 150100
155	160						CSB-T90 15560	CSB-T90 15570	CSB-T90 15580	CSB-T90 15590	CSB-T90 155100
160	165						CSB-T90 16060	CSB-T90 16070	CSB-T90 16080	CSB-T90 16090	CSB-T90 160100
165	170						CSB-T90 16560	CSB-T90 16570	CSB-T90 16580	CSB-T90 16590	CSB-T90 165100
170	175						CSB-T90 17060	CSB-T90 17070	CSB-T90 17080	CSB-T90 17090	CSB-T90 170100
175	180						CSB-T90 17560	CSB-T90 17570	CSB-T90 17580	CSB-T90 17590	CSB-T90 175100
180	185						CSB-T90 18060	CSB-T90 18070	CSB-T90 18080	CSB-T90 18090	CSB-T90 180100
185	190						CSB-T90 18560	CSB-T90 18570	CSB-T90 18580	CSB-T90 18590	CSB-T90 185100
190	195						CSB-T90 19060	CSB-T90 19070	CSB-T90 19080	CSB-T90 19090	CSB-T90 190100
195	200						CSB-T90 19560	CSB-T90 19570	CSB-T90 19580	CSB-T90 19590	CSB-T90 195100
200	205						CSB-T90 20060	CSB-T90 20070	CSB-T90 20080	CSB-T90 20090	CSB-T90 200100
205	210						CSB-T90 20560	CSB-T90 20570	CSB-T90 20580	CSB-T90 20590	CSB-T90 205100
215	220						CSB-T90 21560	CSB-T90 21570	CSB-T90 21580	CSB-T90 21590	CSB-T90 215100
225	230						CSB-T90 22560	CSB-T90 22570	CSB-T90 22580	CSB-T90 22590	CSB-T90 225100
230	235						CSB-T90 23060	CSB-T90 23070	CSB-T90 23080	CSB-T90 23090	CSB-T90 230100
240	245						CSB-T90 24060	CSB-T90 24070	CSB-T90 24080	CSB-T90 24090	CSB-T90 240100
250	255						CSB-T90 25060	CSB-T90 25070	CSB-T90 25080	CSB-T90 25090	CSB-T90 250100
260	265						CSB-T90 26060	CSB-T90 26070	CSB-T90 26080	CSB-T90 26090	CSB-T90 260100
270	275						CSB-T90 27060	CSB-T90 27070	CSB-T90 27080	CSB-T90 27090	CSB-T90 270100
280	285						CSB-T90 28060	CSB-T90 28070	CSB-T90 28080	CSB-T90 28090	CSB-T90 280100
290	295						CSB-T90 29060	CSB-T90 29070	CSB-T90 29080	CSB-T90 29090	CSB-T90 290100
300	305						CSB-T90 30060	CSB-T90 30070	CSB-T90 30080	CSB-T90 30090	CSB-T90 300100

CSB-TB90 Metric Flange Bushes



S_a	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_f	$B \begin{smallmatrix} 0 \\ -0.40 \end{smallmatrix}$										
			15	20	25	30	35	40	50	60	70	80	90
25	28	35	CSB-TB90 25150	CSB-TB90 25200	CSB-TB90 25250								
30	34	45		CSB-TB90 30200	CSB-TB90 30250	CSB-TB90 30300							
35	39	50		CSB-TB90 35200	CSB-TB90 35250	CSB-TB90 35300	CSB-TB90 35350						
40	44	55			CSB-TB90 40250	CSB-TB90 40300	CSB-TB90 40350	CSB-TB90 40400					
45	50	60				CSB-TB90 45300	CSB-TB90 45350	CSB-TB90 45400	CSB-TB90 45500				
50	55	65				CSB-TB90 50300	CSB-TB90 50350	CSB-TB90 50400	CSB-TB90 50500				
55	60	70				CSB-TB90 55300	CSB-TB90 55350	CSB-TB90 55400	CSB-TB90 55500				
60	65	75				CSB-TB90 60300	CSB-TB90 60350	CSB-TB90 60400	CSB-TB90 60500	CSB-TB90 60600			
65	70	80				CSB-TB90 65300	CSB-TB90 65350	CSB-TB90 65400	CSB-TB90 65500	CSB-TB90 65600			
70	75	85					CSB-TB90 70350	CSB-TB90 70400	CSB-TB90 70500	CSB-TB90 70600	CSB-TB90 70700		
75	80	90					CSB-TB90 75350	CSB-TB90 75400	CSB-TB90 75500	CSB-TB90 75600	CSB-TB90 75700		
80	85	100					CSB-TB90 80350	CSB-TB90 80400	CSB-TB90 80500	CSB-TB90 80600	CSB-TB90 80700	CSB-TB90 80800	
90	95	110							CSB-TB90 90500	CSB-TB90 90600	CSB-TB90 90700	CSB-TB90 90800	CSB-TB90 90900
100	105	120							CSB-TB90 100500	CSB-TB90 100600	CSB-TB90 100700	CSB-TB90 100800	CSB-TB90 100900
110	115	130							CSB-TB90 110500	CSB-TB90 110600	CSB-TB90 110700	CSB-TB90 110800	CSB-TB90 110900
120	125	140							CSB-TB90 120500	CSB-TB90 120600	CSB-TB90 120700	CSB-TB90 120800	CSB-TB90 120900
130	135	155								CSB-TB90 130600	CSB-TB90 130700	CSB-TB90 130800	CSB-TB90 130900
140	145	165								CSB-TB90 140600	CSB-TB90 140700	CSB-TB90 140800	CSB-TB90 140900
150	155	180								CSB-TB90 150600	CSB-TB90 150700	CSB-TB90 150800	CSB-TB90 150900
160	165	190								CSB-TB90 160600	CSB-TB90 160700	CSB-TB90 160800	CSB-TB90 160900
170	175	200								CSB-TB90 170600	CSB-TB90 170700	CSB-TB90 170800	CSB-TB90 170900
180	185	215								CSB-TB90 180600	CSB-TB90 180700	CSB-TB90 180800	CSB-TB90 180900
190	195	225								CSB-TB90 190600	CSB-TB90 190700	CSB-TB90 190800	CSB-TB90 190900
200	205	235								CSB-TB90 200600	CSB-TB90 200700	CSB-TB90 200800	CSB-TB90 200900
225	230	260								CSB-TB90 225600	CSB-TB90 225700	CSB-TB90 225800	CSB-TB90 225900
250	255	290								CSB-TB90 250600	CSB-TB90 250700	CSB-TB90 250800	CSB-TB90 250900
265	270	305								CSB-TB90 265600	CSB-TB90 265700	CSB-TB90 265800	CSB-TB90 265900
285	290	325								CSB-TB90 285600	CSB-TB90 285700	CSB-TB90 285800	CSB-TB90 285900
300	305	340								CSB-TB90 300600	CSB-TB90 300700	CSB-TB90 300800	CSB-TB90 300900

CSB-T90 Bronze Wrapped Bushes

Chemical composition

Material type	Cu%	Sn%	P%	Pb%	Zn%
CSB-T09	91.3	8.5	0.2	/	/

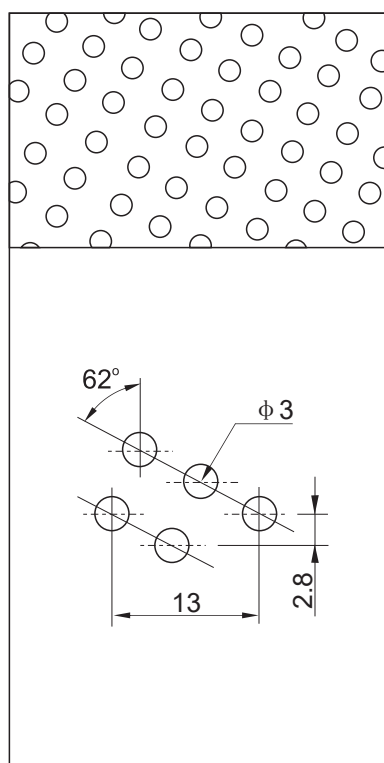
Bushes tolerance

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 hole type

Inside Dia. ≤ φ 25



Inside Dia. ≥ φ 28

