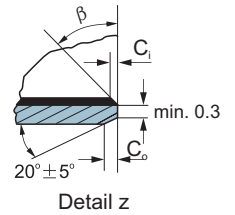
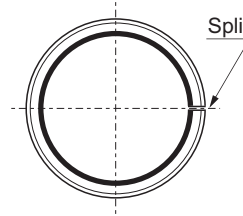
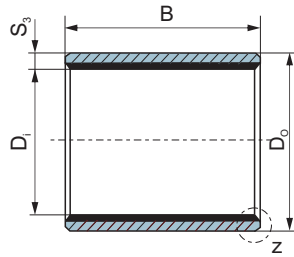


CSB-40 Metric Cylindrical Bushes



ID and OD chamfers

S_3	C_0	C_1	β	S_3	C_0	C_1	β
0.75	0.5 ± 0.3	0.25 ± 0.2	$30^\circ \pm 5^\circ$	2.00	1.2 ± 0.4	0.50 ± 0.3	$30^\circ \pm 5^\circ$
1.00	0.6 ± 0.3	0.30 ± 0.2	$30^\circ \pm 5^\circ$	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	$30^\circ \pm 5^\circ$				

Unit:mm

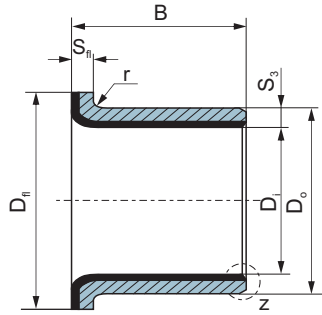
Shaft D_s	Housing H7 D_H	OD tolerance D_0	ID after fixed $D_{i,a}$	Clearance C_D	Wall thick- ness S_3	$B \begin{matrix} 0 & (d \leq \phi 30 \text{ B}-0.3) \\ -0.40 & (d > \phi 30 \text{ B}-0.4) \end{matrix}$																
						6	8	10	12	15	20	25	30	40	50							
6 -0.010 -0.022	8 $+0.015$	8 $+0.055$ $+0.025$	6.055 5.990	0.077 0.000	1.005 0.980	CSB-40 0606	CSB-40 0608	CSB-40 0610														
8 -0.013 -0.028	10 $+0.015$	10 $+0.055$ $+0.025$	8.055 7.990	0.083 0.003		CSB-40 0806	CSB-40 0808	CSB-40 0810	CSB-40 0812	CSB-40 0815												
10 -0.013 -0.028	12 $+0.018$	12 $+0.065$ $+0.030$	10.058 9.990	0.086 0.003		CSB-40 1006	CSB-40 1008	CSB-40 1010	CSB-40 1012	CSB-40 1015	CSB-40 1020											
12 -0.016 -0.034	14 $+0.018$	14 $+0.065$ $+0.030$	12.058 11.990	0.092 0.006		CSB-40 1206	CSB-40 1208	CSB-40 1210	CSB-40 1212	CSB-40 1215	CSB-40 1220	CSB-40 1225										
13 -0.016 -0.034	15 $+0.018$	15 $+0.065$ $+0.030$	13.058 12.990			CSB-40 1310					CSB-40 1320											
14 -0.016 -0.034	16 $+0.018$	16 $+0.065$ $+0.030$	14.058 13.990			CSB-40 1410	CSB-40 1412	CSB-40 1415	CSB-40 1420	CSB-40 1425												
15 -0.016 -0.034	17 $+0.018$	17 $+0.065$ $+0.030$	15.058 14.990			CSB-40 1510	CSB-40 1512	CSB-40 1515	CSB-40 1520	CSB-40 1525												
16 -0.016 -0.034	18 $+0.018$	18 $+0.065$ $+0.030$	16.058 15.990			CSB-40 1610	CSB-40 1612	CSB-40 1615	CSB-40 1620	CSB-40 1625												
17 -0.016 -0.034	19 $+0.021$	19 $+0.075$ $+0.035$	17.061 16.990			0.095 0.006	CSB-40 1710	CSB-40 1712			CSB-40 1720											
18 -0.016 -0.034	20 $+0.021$	20 $+0.075$ $+0.035$	18.061 17.990	CSB-40 1810			CSB-40 1812	CSB-40 1815	CSB-40 1820	CSB-40 1825												
20 -0.020 -0.041	23 $+0.021$	23 $+0.075$ $+0.035$	20.071 19.990	0.112 0.010				CSB-40 2010	CSB-40 2012	CSB-40 2015	CSB-40 2020	CSB-40 2025	CSB-40 2030									
22 -0.020 -0.041	25 $+0.021$	25 $+0.075$ $+0.035$	22.071 21.990		CSB-40 2210		CSB-40 2212	CSB-40 2215	CSB-40 2220	CSB-40 2225	CSB-40 2230											
24 -0.020 -0.041	27 $+0.021$	27 $+0.075$ $+0.035$	24.071 23.990					CSB-40 2415	CSB-40 2420	CSB-40 2425	CSB-40 2430											
25 -0.020 -0.041	28 $+0.021$	28 $+0.075$ $+0.035$	25.071 24.990		CSB-40 2510	CSB-40 2512	CSB-40 2515	CSB-40 2520	CSB-40 2525	CSB-40 2530	CSB-40 2540	CSB-40 2550										
28 -0.020 -0.041	32 $+0.025$	32 $+0.085$ $+0.045$	28.085 27.990	0.126 0.010				CSB-40 2815	CSB-40 2820	CSB-40 2825	CSB-40 2830	CSB-40 2840										
30 -0.020 -0.041	34 $+0.025$	34 $+0.085$ $+0.045$	30.085 29.990		CSB-40 3012	CSB-40 3015	CSB-40 3020	CSB-40 3025	CSB-40 3030	CSB-40 3040												
32 -0.025 -0.050	36 $+0.025$	36 $+0.085$ $+0.045$	32.085 31.990	0.135 0.015					CSB-40 3220		CSB-40 3230	CSB-40 3240										
35 -0.025 -0.050	39 $+0.025$	39 $+0.085$ $+0.045$	35.085 34.990		CSB-40 3512	CSB-40 3515	CSB-40 3520	CSB-40 3525	CSB-40 3530	CSB-40 3540	CSB-40 3550											
38 -0.025 -0.050	42 $+0.025$	42 $+0.085$ $+0.045$	38.085 37.990					CSB-40 3815				CSB-40 3830	CSB-40 3840									
40 -0.025 -0.050	44 $+0.025$	44 $+0.085$ $+0.045$	40.085 39.990					CSB-40 4012		CSB-40 4020	CSB-40 4025	CSB-40 4030	CSB-40 4040	CSB-40 4050								

CSB-40 Metric Cylindrical Bushes

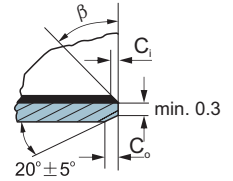
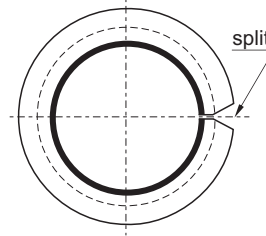
Unit:mm

Shaft D_s	Housing H7 D_H	OD tolerance D_o	ID after fixed $D_{l,a}$	Clearance C_D	Wall thick- ness S_3	$B_{-0.40}^0$												
						20	25	30	40	50	60	70	80	100	115			
45 ^{-0.050} _{-0.025}	50 ^{+0.025}	50 ^{+0.085} _{+0.045}	45.105 44.990	0.155 0.015	2.505 2.460	CSB-40 4520	CSB-40 4525	CSB-40 4530	CSB-40 4540	CSB-40 4550								
50 ^{-0.050} _{-0.025}	55 ^{+0.030}	55 ^{+0.100} _{+0.055}	50.110 49.990	0.160 0.015		CSB-40 5020		CSB-40 5030	CSB-40 5040	CSB-40 5050	CSB-40 5060							
55 ^{-0.060} _{-0.030}	60 ^{+0.030}	60 ^{+0.100} _{+0.055}	55.110 54.990	0.170 0.020				CSB-40 5530	CSB-40 5540	CSB-40 5550	CSB-40 5560							
60 ^{-0.060} _{-0.030}	65 ^{+0.030}	65 ^{+0.100} _{+0.055}	60.110 59.990						CSB-40 6030	CSB-40 6040	CSB-40 6050	CSB-40 6060	CSB-40 6070					
65 ^{-0.060} _{-0.030}	70 ^{+0.030}	70 ^{+0.100} _{+0.055}	65.110 64.990						CSB-40 6530	CSB-40 6540	CSB-40 6550	CSB-40 6560	CSB-40 6570					
70 ^{-0.060} _{-0.030}	75 ^{+0.030}	75 ^{+0.100} _{+0.055}	70.110 69.990							CSB-40 7040	CSB-40 7050	CSB-40 7060	CSB-40 7070	CSB-40 7080				
75 ^{-0.060} _{-0.030}	80 ^{+0.030}	80 ^{+0.100} _{+0.055}	75.110 74.990						CSB-40 7530	CSB-40 7540	CSB-40 7550	CSB-40 7560	CSB-40 7570	CSB-40 7580				
80 ^{-0.060} _{-0.030}	85 ^{+0.035}	85 ^{+0.120} _{+0.070}	80.155 80.020		0.201 0.020	2.490 2.440			CSB-40 8040	CSB-40 8050	CSB-40 8060	CSB-40 8070	CSB-40 8080	CSB-40 80100				
85 ^{-0.054}	90 ^{+0.035}	90 ^{+0.120} _{+0.070}	85.155 85.020	0.209 0.020					CSB-40 8540		CSB-40 8560		CSB-40 8580	CSB-40 85100				
90 ^{-0.054}	95 ^{+0.035}	95 ^{+0.120} _{+0.070}	90.155 90.020						CSB-40 9040	CSB-40 9050	CSB-40 9060		CSB-40 9080	CSB-40 90100				
95 ^{-0.054}	100 ^{+0.035}	100 ^{+0.120} _{+0.070}	95.155 95.020							CSB-40 9550	CSB-40 9560		CSB-40 9580	CSB-40 95100				
100 ^{-0.054}	105 ^{+0.035}	105 ^{+0.120} _{+0.070}	100.155 100.020							CSB-40 10050	CSB-40 10060		CSB-40 10080		CSB-40 100115			
105 ^{-0.054}	110 ^{+0.035}	110 ^{+0.120} _{+0.070}	105.155 105.020								CSB-40 10560		CSB-40 10580		CSB-40 105115			
110 ^{-0.054}	115 ^{+0.035}	115 ^{+0.120} _{+0.070}	110.155 110.020								CSB-40 11060		CSB-40 11080		CSB-40 110115			
120 ^{-0.054}	125 ^{+0.040}	125 ^{+0.170} _{+0.100}	120.210 120.070	0.264 0.070	2.465 2.415					CSB-40 12060		CSB-40 12080	CSB-40 120100					
125 ^{-0.063}	130 ^{+0.040}	130 ^{+0.170} _{+0.100}	125.210 125.070	0.273 0.070						CSB-40 12560			CSB-40 125100	CSB-40 125115				
130 ^{-0.063}	135 ^{+0.040}	135 ^{+0.170} _{+0.100}	130.210 130.070							CSB-40 13060		CSB-40 13080		CSB-40 130100				
140 ^{-0.063}	145 ^{+0.040}	145 ^{+0.170} _{+0.100}	140.210 140.070							CSB-40 14060		CSB-40 14080		CSB-40 140100				
150 ^{-0.063}	155 ^{+0.040}	155 ^{+0.170} _{+0.100}	150.210 150.070								CSB-40 15060		CSB-40 15080	CSB-40 150100				
160 ^{-0.063}	165 ^{+0.040}	165 ^{+0.170} _{+0.100}	160.210 160.070								CSB-40 16060		CSB-40 16080	CSB-40 160100	CSB-40 160115			
180 ^{-0.063}	185 ^{+0.046}	185 ^{+0.210} _{+0.130}	180.216 180.070			0.279 0.070	2.465 2.415							CSB-40 18080	CSB-40 180100			
190 ^{-0.072}	195 ^{+0.046}	195 ^{+0.210} _{+0.130}	190.216 190.070	0.288 0.070									CSB-40 19080	CSB-40 190100				
200 ^{-0.072}	205 ^{+0.046}	205 ^{+0.210} _{+0.130}	200.216 200.070								CSB-40 20060		CSB-40 20080	CSB-40 200100				
220 ^{-0.072}	225 ^{+0.046}	225 ^{+0.210} _{+0.130}	220.216 220.070										CSB-40 22080	CSB-40 220100				
250 ^{-0.072}	255 ^{+0.052}	255 ^{+0.260} _{+0.170}	250.222 250.070	0.294 0.070	2.465 2.415							CSB-40 25080	CSB-40 250100					
260 ^{-0.081}	265 ^{+0.052}	265 ^{+0.260} _{+0.170}	260.222 260.070	0.303 0.070									CSB-40 26080	CSB-40 260100				
280 ^{-0.081}	285 ^{+0.052}	285 ^{+0.260} _{+0.170}	280.222 280.070											CSB-40 28080	CSB-40 280100			
300 ^{-0.081}	305 ^{+0.052}	305 ^{+0.260} _{+0.170}	300.222 300.070											CSB-40 30080	CSB-40 300100			

CSB-40 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



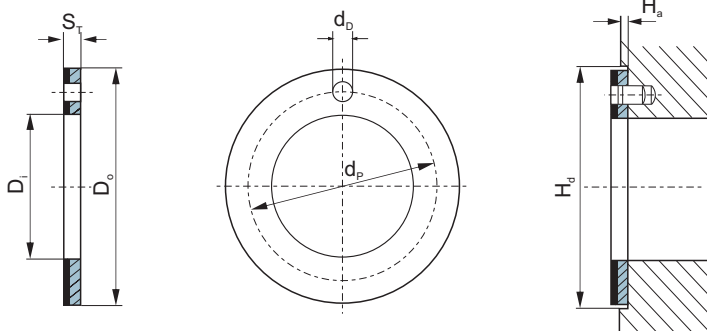
Detail z

Unit:mm

Shaft D_s	Housing $H7$ D_H	OD tolerance D_o	ID after fixed $D_{i,a}$	Clearance C_o	Designation	Wall thickness S_3	Dimension				
							D_i	D_o	$D_n \pm 0.5$	$B \pm 0.25$	$S_n - 0.2$
6 -0.013 -0.028	8 +0.015	8 +0.055 +0.025	6.055 5.990	0.077 0.000	CSB-40F06040	1.005 0.980	6	8	12	4	1
					CSB-40F06070					7	
8 -0.013 -0.028	10 +0.015	10 +0.055 +0.025	8.055 7.990	0.083 0.003	CSB-40F08055	1.005 0.980	8	10	15	5.5	1
					CSB-40F08075					7.5	
10 -0.016 -0.034	12 +0.018	12 +0.055 +0.025	10.058 9.990	0.086 0.003	CSB-40F10070	1.005 0.980	10	12	18	7	1
					CSB-40F10090					9	
					CSB-40F10120					12	
12 -0.016 -0.034	14 +0.018	14 +0.065 +0.030	12.058 11.990	0.092 0.006	CSB-40F12070	1.005 0.980	12	14	20	7	1
					CSB-40F12090					9	
					CSB-40F12120					12	
14 -0.016 -0.034	16 +0.018	16 +0.065 +0.030	14.058 13.990	0.092 0.006	CSB-40F14120	1.005 0.980	14	16	22	12	1
					CSB-40F14170					17	
					CSB-40F15090					9	
15 -0.016 -0.034	17 +0.018	17 +0.065 +0.030	15.058 14.990	0.092 0.006	CSB-40F15120	1.005 0.980	15	17	23	12	1
					CSB-40F15170					17	
					CSB-40F16120					12	
16 -0.016 -0.034	18 +0.018	18 +0.065 +0.030	16.058 15.990	0.092 0.006	CSB-40F16170	1.005 0.980	16	18	24	17	1
					CSB-40F18120					12	
					CSB-40F18170					17	
18 -0.016 -0.034	20 +0.021	20 +0.075 +0.035	18.061 17.990	0.095 0.006	CSB-40F18200	1.005 0.980	18	20	26	20	1
					CSB-40F20115					11.5	
					CSB-40F20165					16.5	
20 -0.020 -0.041	23 +0.021	23 +0.075 +0.035	20.071 19.990	0.112 0.010	CSB-40F20215	1.505 1.475	20	23	30	21.5	1.5
					CSB-40F22150					15	
					CSB-40F22200					20	
22 -0.020 -0.041	25 +0.021	25 +0.075 +0.035	22.071 21.990	0.112 0.010	CSB-40F25115	1.505 1.475	22	25	32	11.5	1.5
					CSB-40F25165					16.5	
					CSB-40F25215					21.5	
25 -0.020 -0.041	28 +0.021	28 +0.075 +0.035	25.071 24.990	0.112 0.010	CSB-40F30160	2.005 1.970	25	28	35	11.5	2
					CSB-40F30260					16.5	
					CSB-40F35160					16	
30 -0.025 -0.050	34 +0.025	34 +0.075 +0.035	30.085 29.990	0.126 0.010	CSB-40F35260	2.005 1.970	30	34	42	26	2
					CSB-40F40260					26	
					CSB-40F40400					40	
35 -0.025 -0.050	39 +0.025	39 +0.085 +0.045	35.085 34.990	0.135 0.015	CSB-40F40400	2.005 1.970	35	39	47	16	2
					CSB-40F35160					26	
					CSB-40F35260					26	
40 -0.025 -0.050	44 +0.025	44 +0.085 +0.045	40.085 39.990	0.135 0.015	CSB-40F40400	2.005 1.970	40	44	53	26	2
					CSB-40F40400					40	
					CSB-40F40400					40	

CSB-40 Metric Thrust Washer and Strip

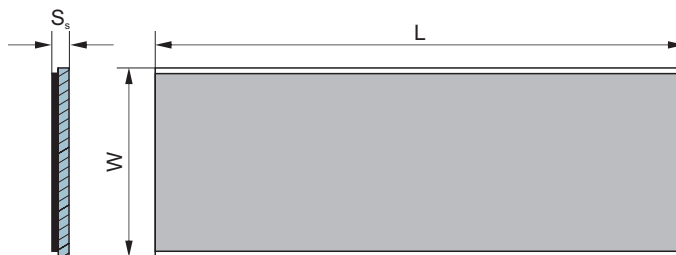
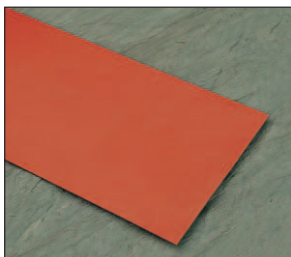
Metric thrust washer



Unit:mm

Shaft D_s	Designation	Washer dimension				Installation size		$H_d+0.12$
		$D_i +0.25$	$D_o -0.25$	$S_T -0.05$	$d_p \pm 0.125$	$d_{d+0.1}^{+0.4}$	$H_a \pm 0.2$	
8	CSB-40WC10	10	20	1.5	15	1.5	1	20
10	CSB-40WC12	12	24		18			24
12	CSB-40WC14	14	26		20			26
14	CSB-40WC16	16	30		23	30		
16	CSB-40WC18	18	32		25	32		
18	CSB-40WC20	20	36		28	36		
20	CSB-40WC22	22	38		30	38		
22	CSB-40WC24	24	42		33	42		
24	CSB-40WC26	26	44		35	44		
26	CSB-40WC28	28	48		38	48		
30	CSB-40WC32	32	54		43	54		
36	CSB-40WC38	38	62		50	62		
40	CSB-40WC42	42	66		54	66		
46	CSB-40WC48	48	74		61	74		
50	CSB-40WC52	52	78	2	65	1.5	78	
60	CSB-40WC62	62	90		76		90	

Metric standard strip



Unit:mm

Type	Length ± 1	Width ± 1	Thickness -0.05
CSB-40SP	500	150	1.0
CSB-40SP	500	150	1.5
CSB-40SP	500	150	2.0
CSB-40SP	500	150	2.5