

Maryland Metrics: Tolerance chart for sealing applications

Specified Tolerances

Nominal Sizes inch		SHAFTS (outside diameters) units 0.001 inch										BORES (inside diameters) units 0.001 inch				
		over	to	e9	f8	f9	h8	h9	h10	h11	js10	js11	H8	H9	H10	H11
0.04	0.12	-0.6	-0.3	-0.3	0	0	0	0	+0.8	+1.3	+0.6	+1.0	+1.6	+2.5	+1.3	
		-1.6	-0.9	-1.2	-0.6	-1.0	-1.6	-2.5	-0.8	-1.3	0	0	0	0	-1.3	
0.12	0.24	-0.8	-0.4	-0.4	0	0	0	0	+0.9	+1.5	+0.7	+1.2	+1.8	+3.0	+1.5	
		-2.0	-1.1	-1.6	-0.7	-1.2	-1.8	-3.0	-0.9	-1.5	0	0	0	0	-1.5	
0.24	0.40	-1.0	-0.5	-0.5	0	0	0	0	+1.1	+1.8	+0.9	+1.4	+2.2	+3.5	+1.8	
		-2.4	-1.4	-1.9	-0.9	-1.4	-2.2	-3.5	-1.1	-1.8	0	0	0	0	-1.8	
0.40	0.71	-1.2	-0.6	-0.6	0	0	0	0	+1.4	+2.0	+1.0	+1.6	+2.8	+4.0	+2.0	
		-2.8	-1.6	-2.3	-1.0	-1.6	-2.8	-4.0	-1.4	-2.0	0	0	0	0	-2.0	
0.71	1.19	-1.6	-0.8	-0.8	0	0	0	0	+1.8	+2.5	+1.2	+2.0	+3.5	+5.0	+2.5	
		-3.6	-2.0	-2.8	-1.2	-2.0	-3.5	-5.0	-1.8	-2.5	0	0	0	0	-2.5	
1.19	1.97	-2.0	-1.0	-1.0	0	0	0	0	+2.0	+3.0	+1.6	+2.5	+4.0	+6.0	+3.0	
		-4.5	-2.6	-3.4	-1.6	-2.5	-4.0	-6.0	-2.0	-3.0	0	0	0	0	-3.0	
1.97	3.15	-2.5	-1.2	-1.2	0	0	0	0	+2.3	+3.5	+1.8	+3.0	+4.5	+7.0	+3.5	
		-5.5	-3.0	-4.1	-1.8	-3.0	-4.5	-7.0	-2.3	-3.5	0	0	0	0	-3.5	
3.15	4.73	-3.0	-1.4	-1.4	0	0	0	0	+2.5	+4.5	+2.2	+3.5	+5.0	+9.0	+4.5	
		-6.5	-3.6	-4.8	-2.2	-3.5	-5.0	-9.0	-2.5	-4.5	0	0	0	0	-4.5	
4.73	7.09	-3.5	-1.6	-1.6	0	0	0	0	+3.0	+5.0	+2.5	+4.0	+6.0	+10.0	+5.0	
		-7.5	-4.1	-5.6	-2.5	-4.0	-6.0	-10.0	-3.0	-5.0	0	0	0	0	-5.0	
7.09	9.85	-4.0	-2.0	-2.0	0	0	0	0	+3.5	+6.0	+2.8	+4.5	+7.0	+12.0	+6.0	
		-8.5	-4.8	-6.5	-2.8	-4.5	-7.0	-12.0	-3.5	-6.0	0	0	0	0	-6.0	
9.85	12.41	-4.5	-2.2	-2.2	0	0	0	0	+4.0	+6.0	+3.0	+5.0	+8.0	+12.0	+6.0	
		-9.5	-5.2	-7.3	-3.0	-5.0	-8.0	-12.0	-4.0	-6.0	0	0	0	0	-6.0	

Tolerances extracted from BS1916 with kind permission of British Standards Institution.

Nominal Sizes mm		SHAFTS (outside diameters) units 0.001 mm										BORES (inside diameters) units 0.001 mm				
		over	to	e9	f8	f9	h8	h9	h10	h11	js10	js11	H8	H9	H10	H11
1.6	3	-14	-6	-6	0	0	0	0	+20	+30	+14	+25	+40	+60	+30	
		-39	-20	-31	-14	-25	-40	-60	-20	-30	0	0	0	0	-30	
3	6	-20	-10	-10	0	0	0	0	+24	+37.5	+18	+30	+48	+75	+37.5	
		-50	-28	-40	-18	-30	-48	-75	-24	-37.5	0	0	0	0	-37.5	
6	10	-25	-13	-13	0	0	0	0	+29	+45	+22	+36	+58	+90	+45	
		-61	-35	-49	-22	-36	-58	-90	-29	-45	0	0	0	0	-45	
10	18	-32	-16	-16	0	0	0	0	+35	+55	+27	+43	+70	+110	+55	
		-75	-43	-59	-27	-43	-70	-110	-35	-55	0	0	0	0	-55	
18	30	-40	-20	-20	0	0	0	0	+42	+65	+33	+52	+84	+130	+65	
		-92	-53	-72	-33	-52	-84	-130	-42	-65	0	0	0	0	-65	
30	50	-50	-25	-25	0	0	0	0	+50	+80	+39	+62	+100	+160	+80	
		-112	-64	-87	-39	-62	-100	-160	-50	-80	0	0	0	0	-80	
50	80	-60	-30	-30	0	0	0	0	+60	+95	+46	+74	+120	+190	+95	
		-134	-76	-104	-46	-74	-120	-190	-60	-95	0	0	0	0	-95	
80	120	-72	-36	-36	0	0	0	0	+70	+110	+54	+87	+140	+220	+110	
		-159	-90	-123	-54	-87	-140	-220	-70	-110	0	0	0	0	-110	
120	180	-85	-43	-43	0	0	0	0	+80	+125	+63	+100	+160	+250	+125	
		-185	-106	-143	-63	-100	-160	-250	-80	-125	0	0	0	0	-125	
180	250	-100	-50	-50	0	0	0	0	+92	+145	+72	+115	+185	+290	+145	
		-215	-122	-165	-72	-115	-185	-290	-92	-145	0	0	0	0	-145	
250	315	-110	-56	-56	0	0	0	0	+105	+160	+81	+130	+210	+320	+160	
		-240	-137	-186	-81	-130	-210	-320	-105	-160	0	0	0	0	-160	
315	400	-125	-62	-62	0	0	0	0	+115	+180	+89	+140	+230	+360	+180	
		-265	-151	-212	-89	-140	-230	-360	-115	-180	0	0	0	0	-180	

Tolerances extracted from BS4500 (ISO286) with kind permission of British Standards Institution.