

# TOLERANCES OF COMMONLY USED HOLE FITS

Deviations of holes to be used in commonly used fits

Basic size step (mm)		Tolerance zone class of hole																												Unit : $\mu\text{m}$					
Over	or less	B10	C9	C10	D8	D9	D10	E7	E8	E9	F6	F7	F8	G6	G7	H6	H7	H8	H9	H10	JS6	JS7	K6	K7	M6	M7	N6	N7	P6	P7	R7	S7	T7	U7	X7
—	3	+180	+85	+100	+34	+45	+60	+24	+28	+39	+12	+16	+20	+8	+12	+6	+10	+14	+25	+40	$\pm 3$	$\pm 5$	0	0	-2	-2	-4	-4	-6	-6	-10	-14	—	-18	-20
		+140	+60	+60	+20	+20	+20	+14	+14	+14	+6	+6	+6	+2	+2	0	0	0	0	0	0	0	0	-6	-10	-8	-12	-10	-14	-12	-16	-20	-24	—	-28
3	6	+188	+100	+118	+48	+60	+78	+32	+38	+50	+18	+22	+28	+12	+16	+8	+12	+18	+30	+48	$\pm 4$	$\pm 6$	+2	+3	-1	0	-5	-4	-9	-8	-11	-15	—	-19	-24
		+140	+70	+70	+30	+30	+30	+20	+20	+20	+10	+10	+10	+4	+4	0	0	0	0	0	0	0	0	-6	-9	-9	-12	-13	-16	-17	-20	-23	-27	—	-31
6	10	+208	+116	+138	+62	+76	+98	+40	+47	+61	+22	+28	+35	+14	+20	+9	+15	+22	+36	+58	$\pm 4.5$	$\pm 7$	+2	+5	-3	0	-7	-4	-12	-9	-13	-17	—	-22	-28
		+150	+80	+80	+40	+40	+40	+25	+25	+25	+13	+13	+13	+5	+5	0	0	0	0	0	0	0	0	-7	-10	-12	-15	-16	-19	-21	-24	-28	-32	—	-37
10	14	+220	+138	+165	+77	+93	+120	+50	+59	+75	+27	+34	+43	+17	+24	+11	+18	+27	+43	+70	$\pm 5.5$	$\pm 9$	+2	+6	-4	0	-9	-5	-15	-11	-16	-21	—	-26	-51
		+150	+95	+95	+50	+50	+50	+32	+32	+32	+16	+16	+16	+6	+6	0	0	0	0	0	0	0	0	-9	-12	-15	-18	-20	-23	-26	-29	-34	-39	—	-44
18	24	+244	+162	+194	+98	+117	+149	+61	+73	+92	+33	+41	+53	+20	+28	+13	+21	+33	+52	+84	$\pm 6.5$	$\pm 10$	+2	+6	-4	0	-11	-7	-18	-14	-20	-27	—	-33	-46
		+160	+110	+110	+65	+65	+65	+40	+40	+40	+20	+20	+20	+7	+7	0	0	0	0	0	0	0	0	-11	-15	-17	-21	-24	-28	-31	-35	-41	-48	-54	-61
30	40	+270	+182	+220	+119	+142	+180	+75	+89	+112	+41	+50	+64	+25	+34	+16	+25	+39	+62	+100	$\pm 8$	$\pm 12$	+3	+7	-4	0	-12	-8	-21	-17	-25	-34	-39	-51	—
		+170	+120	+120	+80	+80	+80	+50	+50	+50	+25	+25	+25	+9	+9	0	0	0	0	0	0	0	0	-13	-18	-20	-25	-28	-33	-37	-42	-50	-59	-64	-76
40	50	+280	+192	+230	+80	+80	+80	+50	+50	+50	+25	+25	+25	+9	+9	0	0	0	0	0	$\pm 8$	$\pm 12$	-13	-18	-20	-25	-28	-33	-37	-42	-50	-59	-64	-76	—
		+180	+130	+130																		0	0	-13	-18	-20	-25	-28	-33	-37	-42	-50	-59	-64	-76
50	65	+310	+214	+260	+146	+174	+220	+90	+106	+134	+49	+60	+76	+29	+40	+19	+30	+46	+74	+120	$\pm 9.5$	$\pm 15$	+4	+9	-5	0	-14	-9	-26	-21	-30	-42	-55	-76	—
		+190	+140	+140	+100	+100	+100	+60	+60	+60	+30	+30	+30	+10	+10	0	0	0	0	0	0	0	0	-15	-21	-24	-30	-33	-39	-45	-51	-60	-72	-85	-106
65	80	+320	+224	+270	+100	+100	+100	+60	+60	+60	+30	+30	+30	+10	+10	0	0	0	0	0	$\pm 9.5$	$\pm 15$	-15	-21	-24	-30	-33	-39	-45	-51	-62	-78	-94	-121	—
		+200	+150	+150																		0	0	-15	-21	-24	-30	-33	-39	-45	-51	-62	-78	-94	-121
80	100	+360	+257	+310	+174	+207	+260	+107	+126	+159	+58	+71	+90	+34	+47	+22	+35	+54	+87	+140	$\pm 11$	$\pm 17$	+4	+10	-6	0	-16	-10	-30	-24	-38	-58	-78	-111	—
		+220	+170	+170	+120	+120	+120	+72	+72	+72	+36	+36	+36	+12	+12	0	0	0	0	0	0	0	0	-18	-25	-28	-35	-38	-45	-52	-59	-76	-101	-126	-166
100	120	+380	+267	+320	+120	+120	+120	+72	+72	+72	+36	+36	+36	+12	+12	0	0	0	0	0	$\pm 11$	$\pm 17$	-18	-25	-28	-35	-38	-45	-52	-59	-76	-101	-126	-166	—
		+240	+180	+180																		0	0	-18	-25	-28	-35	-38	-45	-52	-59	-76	-101	-126	-166
120	140	+420	+300	+360																	$\pm 11$	$\pm 17$													
		+260	+200	+200																		0	0												
140	160	+440	+310	+370	+208	+245	+305	+125	+148	+185	+68	+83	+106	+39	+54	+25	+40	+63	+100	+160	$\pm 12.5$	$\pm 20$	+4	+12	-8	0	-20	-12	-36	-28	-48	-77	-107	—	
		+280	+210	+210	+145	+145	+145	+85	+85	+85	+43	+43	+43	+14	+14	0	0	0	0	0	0	0	0	-21	-28	-33	-40	-45	-52	-61	-68	-88	-117	-147	—
160	180	+470	+330	+390																	$\pm 12.5$	$\pm 20$													
		+310	+230	+230																		0	0												
180	200	+525	+355	+425																	$\pm 12.5$	$\pm 20$													
		+340	+240	+240																		0	0												
200	225	+565	+375	+445	+242	+285	+355	+146	+172	+215	+79	+96	+122	+44	+61	+29	+46	+72	+115	+185	$\pm 14.5$	$\pm 23$	+5	+13	-8	0	-22	-14	-41	-33	-60	-105	-151	—	
		+380	+260	+260	+170	+170	+170	+100	+100	+100	+50	+50	+50	+15	+15	0	0	0	0	0	0	0	0	-24	-33	-37	-46	-51	-60	-70	-79	-109	-159	—	—
225	250	+605	+395	+465																	$\pm 14.5$	$\pm 23$													
		+420	+280	+280																		0	0												
250	280	+690	+430	+510	+271	+320	+400	+162	+191	+240	+88	+108	+137	+49	+69	+32	+52	+81	+130	+210	$\pm 16$	$\pm 26$	+5	+16	-9	0	-25	-14	-47	-36	-74	-126	—	—	—
		+480	+300	+300	+190	+190	+190	+110	+110	+110	+56	+56	+56	+17	+17	0	0	0	0	0	0	0	0	-27	-36	-41	-52	-57	-66	-79	-88	-113	-169	—	—
280	315	+750	+460	+540	+190	+190	+190	+110	+110	+110	+56	+56	+56	+17	+17	0	0	0	0	0	$\pm 16$	$\pm 26$	-27	-36	-41	-52	-57	-66	-79	-88	-113	-169	—	—	—
		+540	+330	+330																		0	0												
315	355	+830	+500	+590	+299	+350	+440	+182	+214	+265	+98	+119	+151	+54	+75	+36	+57	+89	+140	+230	$\pm 18$	$\pm 28$	+7	+17	-10	0	-26	-16	-51	-41	-87	-144	—	—	—
		+600	+360	+360	+210	+210	+210	+125	+125	+125	+62	+62	+62	+18	+18	0	0	0	0	0	0	0	0	-29	-40	-46	-57	-62	-73	-87	-98	-130	-193	—	—
355	400	+910	+540	+630	+210	+210	+210	+125	+125	+125	+62	+62	+62	+18	+18	0	0	0	0	0	$\pm 18$	$\pm 28$	-29	-40	-46	-57	-62	-73	-87	-98	-130	-193	—	—	—
		+680	+400	+400																		0	0												
400	450	+1010	+595	+690	+327	+385	+480	+198	+232	+290	+108	+131	+165	+60	+83	+40	+63	+97	+155	+250	$\pm 20$	$\pm 31$	+8	+18	-10	0	-27	-17	-55	-45	-103	-166	—	—	—
		+760	+440	+440	+230	+230	+230	+135	+135	+135	+68	+68	+68	+20	+20	0	0	0	0	0	0	0	0	-32	-45	-50	-63	-67	-80	-95	-108	-144	-219	—	—
450	500	+1090	+635	+730	+230	+230	+230	+135	+135	+135	+68	+68	+68	+20	+20	0	0	0	0	0	$\pm 20$	$\pm 31$	-32	-45	-50	-63	-67	-80	-95	-108	-144	-219	—	—	—
		+840	+480	+480																		0	0												

Note : This table shows that the upper figures are the upper deviation and the lower figures are the lower deviation.