

Referenzmaß (mm)		Toleranzgrenzkategorie für Wellen																								Einheit µm							
über	oder weniger	b9	c9	d8	d9	e7	e8	e9	f6	f7	f8	g5	g6	h5	h6	h7	h8	h9	js5	js6	js7	k5	k6	m5	m6	n5*	n6	p6	r6	s6	t6	u6	x6
-	3	-140 -165	-60 -85	-20 -34	-20 -45	-14 -24	-14 -28	-14 -39	-6 -12	-6 -16	-6 -20	-2 -6	-2 -8	0 -4	0 -6	0 -10	0 -14	0 -25	±2	±3	±5	+4 0	+6 0	+6 +2	+8 +2	+8 +4	+10 +4	+12 +6	+16 +10	+20 +14	-	+24 +18	+26 +20
3	6	-140 -170	-70 -100	-30 -48	-30 -60	-20 -32	-20 -38	-20 -50	-10 -18	-10 -22	-10 -28	-4 -9	-4 -12	0 -5	0 -8	0 -12	0 -18	0 -30	±2.5	±4	±6	+6 +1	+9 +1	+9 +4	+12 +4	+13 +8	+16 +8	+20 +12	+23 +15	+27 +19	-	+31 +23	+36 +28
6	10	-150 -186	-80 -116	-40 -62	-40 -76	-25 -40	-25 -47	-25 -61	-13 -22	-13 -28	-13 -35	-5 -11	-5 -14	0 -6	0 -9	0 -15	0 -22	0 -36	±3	±4.5	±7.5	+7 +1	+10 +1	+12 +6	+15 +6	+16 +10	+19 +10	+24 +15	+28 +19	+32 +23	-	+37 +28	+43 +34
10	14	-150 -193	-95 -138	-50 -77	-50 -93	-32 -50	-32 -59	-32 -75	-16 -27	-16 -34	-16 -43	-6 -14	-6 -17	0 -8	0 -11	0 -18	0 -27	0 -43	±4	±5.5	±9	+9 +1	+12 +1	+15 +7	+18 +7	+20 +12	+23 +12	+29 +18	+34 +23	+39 +28	-	+44 +33	+51 +40 +56 +45
14	18	-160 -212	-110 -162	-65 -98	-65 -117	-40 -61	-40 -73	-40 -92	-20 -33	-20 -41	-20 -53	-7 -16	-7 -20	0 -9	0 -13	0 -21	0 -33	0 -52	±4.5	±6.5	±10.5	+11 +2	+15 +2	+17 +8	+21 +8	+24 +15	+28 +15	+35 +22	+41 +28	+48 +35	-	+54 +41	+67 +54
18	24	-170 -232	-120 -182	-80 -119	-80 -142	-50 -75	-50 -89	-50 -112	-25 -41	-25 -50	-25 -64	-9 -20	-9 -25	0 -11	0 -16	0 -25	0 -39	0 -62	±5.5	±8	±12.5	+13 +2	+18 +2	+20 +9	+25 +9	+28 +17	+33 +17	+42 +26	+50 +34	+59 +43	+64 +48	+76 +60	-
24	30	-180 -242	-130 -192	-119 -192	-142 -192	-75 -89	-89 -112	-112 -149	-41 -50	-50 -60	-64 -76	-20 -23	-25 -29	-11 -13	-16 -19	-25 -30	-39 -46	-62 -74	±5.5	±8	±12.5	+13 +2	+18 +2	+20 +11	+25 +9	+28 +17	+33 +17	+42 +26	+50 +34	+59 +43	+64 +48	+76 +60	-
30	40	-190 -264	-140 -214	-100 -146	-100 -174	-60 -90	-60 -106	-60 -134	-30 -49	-30 -60	-30 -76	-10 -23	-10 -29	0 -13	0 -19	0 -30	0 -46	0 -74	±6.5	±9.5	±15	+15 +2	+21 +2	+24 +11	+30 +11	+33 +20	+39 +20	+51 +32	+60 +41	+72 +53	+85 +66	+106 +87	-
40	50	-200 -274	-150 -224	-146 -224	-174 -224	-90 -106	-106 -134	-134 -171	-49 -60	-60 -76	-76 -90	-23 -27	-29 -34	-13 -15	-19 -22	-30 -35	-46 -54	-74 -87	±6.5	±9.5	±15	+15 +2	+21 +2	+24 +11	+30 +11	+33 +20	+39 +20	+51 +32	+60 +41	+72 +53	+85 +66	+106 +87	-
50	65	-220 -307	-170 -257	-120 -174	-120 -207	-72 -107	-72 -126	-72 -159	-36 -58	-36 -71	-36 -90	-12 -27	-12 -34	0 -15	0 -22	0 -35	0 -54	0 -87	±7.5	±11	±17.5	+18 +3	+25 +3	+28 +13	+35 +13	+38 +23	+45 +23	+59 +37	+73 +51	+93 +71	+113 +91	+146 +124	-
65	80	-240 -327	-180 -267	-174 -267	-207 -267	-107 -146	-126 -159	-159 -206	-58 -71	-71 -90	-90 -106	-27 -34	-34 -41	-15 -18	-22 -27	-35 -41	-54 -63	-87 -100	±7.5	±11	±17.5	+18 +3	+25 +3	+28 +13	+35 +13	+38 +23	+45 +23	+59 +37	+73 +51	+93 +71	+113 +91	+146 +124	-
80	100	-260 -360	-200 -300	-145 -208	-145 -245	-85 -125	-85 -148	-85 -185	-43 -68	-43 -83	-43 -106	-14 -32	-14 -39	0 -18	0 -25	0 -40	0 -63	0 -100	±9	±12.5	±20	+21 +3	+28 +3	+33 +15	+40 +15	-	+52 +27	+68 +43	+88 +63	+117 +92	+147 +122	-	-
100	120	-280 -380	-210 -310	-208 -310	-245 -310	-125 -185	-148 -185	-185 -245	-68 -83	-83 -106	-106 -149	-32 -41	-39 -46	-18 -22	-25 -29	-40 -46	-63 -72	-100 -115	±9	±12.5	±20	+21 +3	+28 +3	+33 +15	+40 +15	-	+52 +27	+68 +43	+88 +63	+117 +92	+147 +122	-	-
120	140	-310 -410	-230 -330	-208 -310	-245 -310	-125 -185	-148 -185	-185 -245	-68 -83	-83 -106	-106 -149	-32 -41	-39 -46	-18 -22	-25 -29	-40 -46	-63 -72	-100 -115	±9	±12.5	±20	+21 +3	+28 +3	+33 +15	+40 +15	-	+52 +27	+68 +43	+88 +63	+117 +92	+147 +122	-	-
140	160	-340 -455	-240 -355	-208 -310	-245 -310	-125 -185	-148 -185	-185 -245	-68 -83	-83 -106	-106 -149	-32 -41	-39 -46	-18 -22	-25 -29	-40 -46	-63 -72	-100 -115	±9	±12.5	±20	+21 +3	+28 +3	+33 +15	+40 +15	-	+52 +27	+68 +43	+88 +63	+117 +92	+147 +122	-	-
160	180	-380 -495	-260 -375	-208 -310	-245 -310	-125 -185	-148 -185	-185 -245	-68 -83	-83 -106	-106 -149	-32 -41	-39 -46	-18 -22	-25 -29	-40 -46	-63 -72	-100 -115	±9	±12.5	±20	+21 +3	+28 +3	+33 +15	+40 +15	-	+52 +27	+68 +43	+88 +63	+117 +92	+147 +122	-	-
180	200	-420 -535	-280 -395	-208 -310	-245 -310	-125 -185	-148 -185	-185 -245	-68 -83	-83 -106	-106 -149	-32 -41	-39 -46	-18 -22	-25 -29	-40 -46	-63 -72	-100 -115	±9	±12.5	±20	+21 +3	+28 +3	+33 +15	+40 +15	-	+52 +27	+68 +43	+88 +63	+117 +92	+147 +122	-	-
200	225	-480 -610	-300 -430	-208 -310	-245 -310	-125 -185	-148 -185	-185 -245	-68 -83	-83 -106	-106 -149	-32 -41	-39 -46	-18 -22	-25 -29	-40 -46	-63 -72	-100 -115	±10	±14.5	±23	+24 +4	+33 +4	+37 +17	+46 +17	-	+60 +31	+79 +50	+106 +77	+151 +122	-	-	-
225	250	-540 -670	-330 -460	-208 -310	-245 -310	-125 -185	-148 -185	-185 -245	-68 -83	-83 -106	-106 -149	-32 -41	-39 -46	-18 -22	-25 -29	-40 -46	-63 -72	-100 -115	±10	±14.5	±23	+24 +4	+33 +4	+37 +17	+46 +17	-	+60 +31	+79 +50	+106 +77	+151 +122	-	-	-
250	280	-580 -710	-360 -490	-208 -310	-245 -310	-125 -185	-148 -185	-185 -245	-68 -83	-83 -106	-106 -149	-32 -41	-39 -46	-18 -22	-25 -29	-40 -46	-63 -72	-100 -115	±10	±14.5	±23	+24 +4	+33 +4	+37 +17	+46 +17	-	+60 +31	+79 +50	+106 +77	+151 +122	-	-	-
280	315	-640 -770	-400 -530	-208 -310	-245 -310	-125 -185	-148 -185	-185 -245	-68 -83	-83 -106	-106 -149	-32 -41	-39 -46	-18 -22	-25 -29	-40 -46	-63 -72	-100 -115	±11.5	±16	±26	+27 +4	+36 +4	+43 +20	+52 +20	-	+66 +34	+88 +56	+126 +94	+130 +98	-	-	-
315	355	-700 -830	-440 -570	-208 -310	-245 -310	-125 -185	-148 -185	-185 -245	-68 -83	-83 -106	-106 -149	-32 -41	-39 -46	-18 -22	-25 -29	-40 -46	-63 -72	-100 -115	±11.5	±16	±26	+27 +4	+36 +4	+43 +20	+52 +20	-	+66 +34	+88 +56	+126 +94	+130 +98	-	-	-
355	400	-760 -890	-500 -630	-208 -310	-245 -310	-125 -185	-148 -185	-185 -245	-68 -83	-83 -106	-106 -149	-32 -41	-39 -46	-18 -22	-25 -29	-40 -46	-63 -72	-100 -115	±12.5	±18	±28.5	+29 +4	+40 +4	+46 +21	+57 +21	-	+73 +37	+98 +62	+144 +108	+150 +114	-	-	-
400	450	-820 -950	-560 -690	-208 -310	-245 -310	-125 -185	-148 -185	-185 -245	-68 -83	-83 -106	-106 -149	-32 -41	-39 -46	-18 -22	-25 -29	-40 -46	-63 -72	-100 -115	±12.5	±18	±28.5	+29 +4	+40 +4	+46 +21	+57 +21	-	+73 +37	+98 +62	+144 +108	+150 +114	-	-	-
450	500	-880 -1010	-620 -750	-208 -310	-245 -310	-125 -185	-148 -185	-185 -245	-68 -83	-83 -106	-106 -149	-32 -41	-39 -46	-18 -22	-25 -29	-40 -46	-63 -72	-100 -115	±13.5	±20	±31.5	+32 +5	+45 +5	+50 +23	+63 +23	-	+80 +40	+108 +68	+166 +126	+172 +132	-	-	-

Referenzmaß (mm)		Toleranzgrenzklasse für Bohrungen																				Einheit μm																
über	oder weniger	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 +140	+85 +60	+100 +60	+34 +20	+45 +20	+60 +20	+24 +14	+28 +14	+39 +14	+12 +6	+16 +6	+20 +6	+8 +2	+12 +2	+6 0	+10 0	+14 0	+25 0	+40 0	±3	±5	0 -6	0 -10	-2 -8	-2 -12	-4 -10	-4 -14	-6 -12	-6 -16	-10 -20	-14 -24	-	-18 -28	-20 -30			
3	6	+188 +140	+100 +70	+118 +70	+48 +30	+60 +30	+78 +30	+32 +20	+38 +20	+50 +20	+18 +10	+22 +10	+28 +10	+12 +4	+16 +4	+8 0	+12 0	+18 0	+30 0	+48 0	±4	±6	+2 -6	+3 -9	-1 -9	0 -12	-5 -13	-4 -16	-9 -17	-8 -20	-11 -23	-15 -27	-	-19 -31	-24 -36			
6	10	+208 +150	+116 +80	+138 +80	+62 +40	+76 +40	+98 +40	+40 +25	+47 +25	+61 +25	+22 +13	+28 +13	+35 +13	+14 +5	+20 +5	+9 0	+15 0	+22 0	+36 0	+58 0	±4.5	±7.5	+2 -7	+5 -10	-3 -12	0 -15	-7 -16	-4 -19	-12 -21	-9 -24	-13 -28	-17 -32	-	-22 -37	-28 -43			
10	14	+220 +150	+138 +95	+165 +95	+77 +50	+93 +50	+120 +50	+50 +32	+59 +32	+75 +32	+27 +16	+34 +16	+43 +16	+17 +6	+24 +6	+11 0	+18 0	+27 0	+43 0	+70 0	±5.5	±9	+2 -9	+6 -12	-4 -15	0 -18	-9 -20	-5 -23	-15 -26	-11 -29	-16 -34	-21 -39	-	-26 -44	-33 -51			
14	18																																					
18	24	+244 +160	+162 +110	+194 +110	+98 +65	+117 +65	+149 +65	+61 +40	+73 +40	+92 +40	+33 +20	+41 +20	+53 +20	+20 +7	+28 +7	+13 0	+21 0	+33 0	+52 0	+84 0	±6.5	±10.5	+2 -11	+6 -15	-4 -17	0 -21	-11 -24	-7 -28	-18 -31	-14 -35	-20 -41	-27 -48	-	-33 -54	-46 -67			
24	30																																					
30	40	+270 +170	+182 +120	+220 +120	+119 +80	+142 +80	+180 +80	+75 +50	+89 +50	+112 +50	+41 +25	+50 +25	+64 +25	+25 +9	+34 +9	+16 0	+25 0	+39 0	+62 0	+100 0	±8	±12.5	+3 -13	+7 -18	-4 -20	0 -25	-12 -28	-8 -33	-21 -37	-17 -42	-25 -50	-34 -59	-	-39 -64	-51 -76			
40	50	+280 +180	+192 +130	+230 +130	+80 +80	+80 +80	+80 +80	+50 +50	+50 +50	+50 +50	+25 +25	+25 +25	+25 +25	+9 +9	+9 +9	0 0	0 0	0 0	0 0	0 0	±8	±12.5	-13 -18	-18 -20	-20 -25	-25 -28	-28 -33	-33 -37	-42 -47	-50 -55	-59 -64	-	-45 -70	-61 -86				
50	65	+310 +190	+214 +140	+260 +140	+146 +100	+174 +100	+220 +100	+90 +60	+106 +60	+134 +60	+49 +30	+60 +30	+76 +30	+29 +10	+40 +10	+19 0	+30 0	+46 0	+74 0	+120 0	±9.5	±15	+4 -15	+9 -21	-5 -24	0 -30	-14 -33	-9 -39	-26 -45	-21 -51	-30 -60	-42 -72	-55 -85	-	-76 -106			
65	80	+320 +200	+224 +150	+270 +150	+100 +100	+100 +100	+100 +100	+60 +60	+60 +60	+60 +60	+30 +30	+30 +30	+30 +30	+10 +10	+10 +10	0 0	0 0	0 0	0 0	0 0	±9.5	±15	-15 -21	-21 -24	-24 -30	-30 -33	-33 -39	-45 -51	-51 -55	-60 -62	-72 -78	-85 -94	-	-106 -121				
80	100	+360 +220	+257 +170	+310 +170	+174 +120	+207 +120	+260 +120	+107 +72	+126 +72	+159 +72	+58 +36	+71 +36	+90 +36	+34 +12	+47 +12	+22 0	+35 0	+54 0	+87 0	+140 0	±11	±17.5	+4 -18	+10 -25	-6 -28	0 -35	-16 -38	-10 -45	-30 -52	-24 -59	-38 -76	-58 -101	-78 -126	-	-111 -166			
100	120	+380 +240	+267 +180	+320 +180	+120 +120	+120 +120	+120 +120	+72 +72	+72 +72	+72 +72	+36 +36	+36 +36	+36 +36	+12 +12	+12 +12	0 0	0 0	0 0	0 0	0 0	±11	±17.5	-18 -25	-25 -28	-28 -35	-35 -38	-45 -52	-52 -59	-59 -76	-76 -101	-111 -166	-	-131 -166					
120	140	+420 +260	+300 +200	+360 +200																																		
140	160	+440 +280	+310 +210	+370 +210	+208 +145	+245 +145	+305 +145	+125 +85	+148 +85	+185 +85	+68 +43	+83 +43	+106 +43	+39 +14	+54 +14	+25 0	+40 0	+63 0	+100 0	+160 0	±12.5	±20	+4 -21	+12 -28	-8 -33	0 -40	-20 -45	-12 -52	-36 -61	-28 -68	-50 -90	-85 -125	-	-119 -159	-			
160	180	+470 +310	+330 +230	+390 +230																																		
180	200	+525 +340	+355 +240	+425 +240																																		
200	225	+565 +380	+375 +260	+445 +260	+242 +170	+285 +170	+355 +170	+146 +100	+172 +100	+215 +100	+79 +50	+96 +50	+122 +50	+44 +15	+61 +15	+29 0	+46 0	+72 0	+115 0	+185 0	±14.5	±23	+5 -24	+13 -33	-8 -37	0 -46	-22 -51	-14 -60	-41 -70	-33 -79	-60 -109	-151 -159	-	-	-	-		
225	250	+605 +420	+395 +280	+465 +280																																		
250	280	+690 +480	+430 +300	+510 +300	+271 +190	+320 +190	+400 +190	+162 +110	+191 +110	+240 +110	+88 +56	+108 +56	+137 +56	+49 +17	+69 +17	+32 0	+52 0	+81 0	+130 0	+210 0	±16	±26	+5 -27	+16 -36	-9 -41	0 -52	-25 -57	-14 -66	-47 -79	-36 -88	-74 -126	-	-	-	-	-		
280	315	+750 +540	+460 +330	+540 +330																																		
315	355	+830 +600	+500 +360	+590 +360	+299 +210	+350 +210	+440 +210	+182 +125	+214 +125	+265 +125	+98 +62	+119 +62	+151 +62	+54 +18	+75 +18	+36 0	+57 0	+89 0	+140 0	+230 0	±18	±28.5	+7 -29	+17 -40	-10 -46	0 -57	-26 -62	-16 -73	-51 -87	-41 -98	-87 -150	-	-	-	-	-		
355	400	+910 +680	+540 +400	+630 +400																																		
400	450	+1010 +760	+595 +440	+690 +440	+327 +230	+385 +230	+480 +230	+198 +135	+232 +135	+290 +135	+108 +68	+131 +68	+165 +68	+60 +20	+83 +20	+40 0	+63 0	+97 0	+155 0	+250 0	±20	±31.5	+8 -32	+18 -45	-10 -50	0 -63	-27 -67	-17 -80	-55 -95	-45 -108	-103 -166	-	-	-	-	-		
450	500	+1090 +840	+635 +480	+730 +480																																		