DIN ISO 286
Extract Part 2

ISO-Fundamental tolerances
for bores and shafts

Tolerance classes for bore	Nominal size range – ...3	> 3 ...6	> 6 ...10	> 10 ...18	> 18 ...30	> 30 ...50	> 50 ...80	> 80 ...120	> 120 ...180	> 180 ...250
D 9	+ 45 / + 20	+ 60 / + 30	+ 76 / + 40	+ 93 / + 50	+ 117 / + 65	+ 142 / + 80	+ 174 / + 100	+ 207 / + 120	+ 245 / + 145	+ 285 / + 170
D 12	+ 120 / + 20	+ 150 / + 30	+ 190 / + 40	+ 230 / + 50	+ 275 / + 65	+ 330 / + 80	+ 400 / + 100	+ 470 / + 120	+ 545 / + 145	+ 630 / + 170
F 7	+ 16 / + 6	+ 22 / + 10	+ 28 / + 13	+ 34 / + 16	+ 41 / + 20	+ 50 / + 25	+ 60 / + 30	+ 71 / + 36	+ 83 / + 43	+ 96 / + 50
G 6	+ 8 / + 2	+ 12 / + 4	+ 14 / + 5	+ 17 / + 6	+ 20 / + 7	+ 25 / + 9	+ 29 / + 10	+ 34 / + 12	+ 39 / + 14	+ 44 / + 15
G 7	+ 12 / + 2	+ 16 / + 4	+ 20 / + 5	+ 24 / + 6	+ 28 / + 7	+ 34 / + 9	+ 40 / + 10	+ 47 / + 12	+ 54 / + 14	+ 61 / + 15
H 7	+ 10 / 0	+ 12 / 0	+ 15 / 0	+ 18 / 0	+ 21 / 0	+ 25 / 0	+ 30 / 0	+ 35 / 0	+ 40 / 0	+ 46 / 0
H 8	+ 14 / 0	+ 18 / 0	+ 22 / 0	+ 27 / 0	+ 33 / 0	+ 39 / 0	+ 46 / 0	+ 54 / 0	+ 63 / 0	+ 72 / 0
H 9	+ 25 / 0	+ 30 / 0	+ 36 / 0	+ 43 / 0	+ 52 / 0	+ 62 / 0	+ 74 / 0	+ 87 / 0	+ 100 / 0	+ 115 / 0
H 10	+ 40 / 0	+ 48 / 0	+ 58 / 0	+ 70 / 0	+ 84 / 0	+ 100 / 0	+ 120 / 0	+ 140 / 0	+ 160 / 0	+ 185 / 0
H 11	+ 60 / 0	+ 75 / 0	+ 90 / 0	+ 110 / 0	+ 130 / 0	+ 160 / 0	+ 190 / 0	+ 220 / 0	+ 250 / 0	+ 290 / 0
H 12	+ 100 / 0	+ 120 / 0	+ 150 / 0	+ 180 / 0	+ 210 / 0	+ 250 / 0	+ 300 / 0	+ 350 / 0	+ 400 / 0	+ 460 / 0
H 13	+ 140 / 0	+ 180 / 0	+ 220 / 0	+ 270 / 0	+ 330 / 0	+ 390 / 0	+ 460 / 0	+ 540 / 0	+ 630 / 0	+ 720 / 0
H 14	+ 250 / 0	+ 300 / 0	+ 360 / 0	+ 430 / 0	+ 520 / 0	+ 620 / 0	+ 740 / 0	+ 870 / 0	+1000 / 0	+1150 / 0
JS 9	+ 12,5 / – 12,5	+ 15 / – 15	+ 18 / – 18	+ 21,5 / – 21,5	+ 26 / – 26	+ 31 / – 31	+ 37 / – 37	+ 43,5 / – 43,5	+ 50 / – 50	+ 57,5 / – 57,5
N 9	– 4 / – 29	0 / – 30	0 / – 36	0 / – 43	0 / – 52	0 / – 62	0 / – 74	0 / – 87	0 / – 100	0 / – 115
P 9	– 6 / – 31	– 12 / – 42	– 15 / – 51	– 18 / – 61	– 22 / – 74	– 26 / – 88	– 32 / – 106	– 37 / – 124	– 43 / – 143	– 50 / – 165

Tolerances in µm

Tolerance classes for shaft	Nominal size range – ...3	> 3 ...6	> 6 ...10	> 10 ...18	> 18 ...30	> 30 ...50	> 50 ...80	> 80 ...120	> 120 ...180	> 180 ...250
f 7	– 6 / – 16	– 10 / – 22	– 13 / – 28	– 16 / – 34	– 20 / – 41	– 25 / – 50	– 30 / – 60	– 36 / – 71	– 43 / – 83	– 50 / – 96
f 9	– 6 / – 31	– 10 / – 40	– 13 / – 49	– 16 / – 59	– 20 / – 72	– 25 / – 87	– 30 / – 104	– 36 / – 123	– 43 / – 143	– 50 / – 165
g 6	– 2 / – 8	– 4 / – 12	– 5 / – 14	– 6 / – 17	– 7 / – 20	– 9 / – 25	– 10 / – 29	– 12 / – 34	– 14 / – 39	– 15 / – 44
h 6	0 / – 6	0 / – 8	0 / – 9	0 / – 11	0 / – 13	0 / – 16	0 / – 19	0 / – 22	0 / – 25	0 / – 29
h 7	0 / – 10	0 / – 12	0 / – 15	0 / – 18	0 / – 21	0 / – 25	0 / – 30	0 / – 35	0 / – 40	0 / – 46
h 8	0 / – 14	0 / – 18	0 / – 22	0 / – 27	0 / – 33	0 / – 39	0 / – 46	0 / – 54	0 / – 63	0 / – 72
h 9	0 / – 25	0 / – 30	0 / – 36	0 / – 43	0 / – 52	0 / – 62	0 / – 74	0 / – 87	0 / – 100	0 / – 115
h 11	0 / – 60	0 / – 75	0 / – 90	0 / – 110	0 / – 130	0 / – 160	0 / – 190	0 / – 220	0 / – 250	0 / – 290
h 13	0 / – 140	0 / – 180	0 / – 220	0 / – 270	0 / – 330	0 / – 390	0 / – 460	0 / – 540	0 / – 630	0 / – 720
h 14	0 / – 250	0 / – 300	0 / – 360	0 / – 430	0 / – 520	0 / – 620	0 / – 740	0 / – 870	0 / –1000	0 / –1150
js 14	+ 125 / – 125	+ 150 / – 150	+ 180 / – 180	+ 215 / – 215	+ 260 / – 260	+ 310 / – 310	+ 370 / – 370	+ 435 / – 435	+ 500 / – 500	+ 575 / – 575
n 6	+ 10 / + 4	+ 16 / + 8	+ 19 / + 10	+ 23 / + 12	+ 28 / + 15	+ 33 / + 17	+ 39 / + 20	+ 45 / + 23	+ 52 / + 27	+ 60 / + 31
p 6	+ 12 / + 6	+ 20 / + 12	+ 24 / + 15	+ 29 / + 18	+ 35 / + 22	+ 42 / + 26	+ 51 / + 32	+ 59 / + 37	+ 68 / + 43	+ 79 / + 50

Tolerances in µm