

h8 - TOLERANCES FOR ROUNDSTEEL

The following tables are giving an overview of the allowed dimensional deviations in accordance with the ISO-tolerance range h8 for round steel.

Listed are outer dimensions for shafts as well as inner dimensions for boreholes, which are important in mechanical engineering and manufacturing technology for a good fit and precise fitting conditions.

Tolerance classification h8 is a commonly used standard tolerance for fitting systems, where the lower deviation is zero and the upper deviation represents a defined tolerance range. This overview serves as a practical reference for selecting and checking components with a precise fit.

Outer dimensions (shaft) Dimensional limits in μm (1 μm = 0,001 mm)

Diameter in mm	h3	h4	h5	h6	h8	h9	h15
1 - 3	0 / -2	0 / -3	0 / -4	0 / -6	0 / -14	0 / -25	0 / -400
3 - 6	0 / -2,5	0 / -4	0 / -5	0 / -8	0 / -18	0 / -30	0 / -480
6 - 10	0 / -2,5	0 / -4	0 / -6	0 / -9	0 / -22	0 / -36	0 / -580
10 - 18	0 / -3	0 / -5	0 / -8	0 / -11	0 / -27	0 / -43	0 / -700
18 - 30	0 / -4	0 / -6	0 / -9	0 / -13	0 / -33	0 / -52	0 / -840
30 - 50	0 / -4	0 / -7	0 / -11	0 / -15	0 / -39	0 / -62	0 / -1000

Internal dimensions (bore) Dimensional limits in μm (1 μm = 0,001 mm)

Diameter in mm	H5	H6	H7	H8	H9	H10	H11
1 - 3	+4 / 0	+6 / 0	+10 / 0	+14 / 0	+25 / 0	+40 / 0	+60 / 0
3 - 6	+5 / 0	+8 / 0	+12 / 0	+18 / 0	+30 / 0	+48 / 0	+75 / 0
6 - 10	+6 / 0	+9 / 0	+15 / 0	+22 / 0	+36 / 0	+58 / 0	+90 / 0
10 - 18	+8 / 0	+11 / 0	+18 / 0	+27 / 0	+43 / 0	+70 / 0	+110 / 0
18 - 30	+9 / 0	+13 / 0	+13 / 0	+33 / 0	+52 / 0	+84 / 0	+130 / 0
30 - 50	+11 / 0	+16 / 0	+16 / 0	+39 / 0	+62 / 0	+100 / 0	+160 / 0

