



**As toleranties in µm vlgs ISO 286-2 / Tolerances on diameter in µm acc ISO 286-2**

| Diameter<br>as in mm<br>→ | ≤ 3 |      | > 3 -<br>≤ 6 |       | > 6 -<br>≤ 10 |       | > 10 -<br>≤ 18 |       | > 18 -<br>≤ 30 |       | > 30 -<br>≤ 50 |       | > 50 -<br>≤ 80 |       | > 80 -<br>≤ 120 |       | > 120 -<br>≤ 180 |       |
|---------------------------|-----|------|--------------|-------|---------------|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|-----------------|-------|------------------|-------|
|                           |     |      |              |       |               |       |                |       |                |       |                |       |                |       |                 |       |                  |       |
| d8                        | -20 | -34  | -30          | -48   | -40           | -62   | -50            | -77   | -65            | -98   | -80            | -119  | -100           | -146  | -120            | -174  | -145             | -208  |
| d9                        | -20 | -45  | -30          | -60   | -40           | -76   | -50            | -93   | -65            | -117  | -80            | -142  | -100           | -174  | -120            | -207  | -145             | -245  |
| e7                        | -14 | -24  | -20          | -32   | -25           | -40   | -32            | -50   | -40            | -61   | -50            | -75   | -60            | -90   | -72             | -107  | -85              | -125  |
| e8                        | -14 | -28  | -20          | -38   | -25           | -47   | -32            | -59   | -40            | -73   | -50            | -89   | -60            | -106  | -72             | -126  | -85              | -148  |
| e9                        | -14 | -39  | -20          | -50   | -25           | -61   | -32            | -75   | -40            | -92   | -50            | -112  | -60            | -134  | -72             | -159  | -85              | -185  |
| f7                        | -6  | -16  | -10          | -22   | -13           | -28   | -16            | -34   | -20            | -41   | -25            | -50   | -30            | -60   | -36             | -71   | -43              | -83   |
| f8                        | -6  | -20  | -10          | -28   | -13           | -35   | -16            | -43   | -20            | -53   | -25            | -64   | -30            | -76   | -36             | -90   | -43              | -106  |
| f9                        | -6  | -31  | -10          | -40   | -13           | -49   | -16            | -59   | -20            | -72   | -25            | -87   | -30            | -104  | -36             | -123  | -43              | -143  |
| g5                        | -2  | -6   | -4           | -9    | -5            | -11   | -6             | -14   | -7             | -16   | -9             | -20   | -10            | -23   | -12             | -27   | -14              | -32   |
| g6                        | -2  | -8   | -4           | -12   | -5            | -14   | -6             | -17   | -7             | -20   | -9             | -25   | -10            | -29   | -12             | -34   | -14              | -39   |
| h5                        | 0   | -4   | 0            | -5    | 0             | -6    | 0              | -8    | 0              | -9    | 0              | -11   | 0              | -13   | 0               | -15   | 0                | -18   |
| h6                        | 0   | -6   | 0            | -8    | 0             | -9    | 0              | -11   | 0              | -13   | 0              | -16   | 0              | -19   | 0               | -22   | 0                | -25   |
| h7                        | 0   | -10  | 0            | -12   | 0             | -15   | 0              | -18   | 0              | -21   | 0              | -25   | 0              | -30   | 0               | -35   | 0                | -40   |
| h8                        | 0   | -14  | 0            | -18   | 0             | -22   | 0              | -27   | 0              | -33   | 0              | -39   | 0              | -46   | 0               | -54   | 0                | -63   |
| h9                        | 0   | -25  | 0            | -30   | 0             | -36   | 0              | -43   | 0              | -52   | 0              | -62   | 0              | -74   | 0               | -87   | 0                | -100  |
| h10                       | 0   | -40  | 0            | -48   | 0             | -58   | 0              | -70   | 0              | -84   | 0              | -100  | 0              | -120  | 0               | -140  | 0                | -160  |
| h11                       | 0   | -60  | 0            | -75   | 0             | -90   | 0              | -110  | 0              | -130  | 0              | -160  | 0              | -190  | 0               | -220  | 0                | -250  |
| h12                       | 0   | -100 | 0            | -120  | 0             | -150  | 0              | -180  | 0              | -210  | 0              | -250  | 0              | -300  | 0               | -350  | 0                | -400  |
| h13                       | 0   | -140 | 0            | -180  | 0             | -220  | 0              | -270  | 0              | -330  | 0              | -390  | 0              | -460  | 0               | -540  | 0                | -630  |
| h14                       | 0   | -250 | 0            | -300  | 0             | -360  | 0              | -430  | 0              | -520  | 0              | -620  | 0              | -740  | 0               | -870  | 0                | -1000 |
| h15                       | 0   | -400 | 0            | -480  | 0             | -580  | 0              | -700  | 0              | -840  | 0              | -1000 | 0              | -1200 | 0               | -1400 | 0                | -1600 |
| h16                       | 0   | -600 | 0            | -750  | 0             | -900  | 0              | -1100 | 0              | -1300 | 0              | -1600 | 0              | -1900 | 0               | -2200 | 0                | -2500 |
| h17                       | -   | -    | 0            | -1200 | 0             | -1500 | 0              | -1800 | 0              | -2100 | 0              | -2500 | 0              | -3000 | 0               | -3500 | 0                | -4000 |
| j5                        | 2   | -2   | 3            | -2    | 4             | -2    | 5              | -3    | 5              | -4    | 6              | -5    | 6              | -7    | 6               | -9    | 7                | -11   |
| j6                        | 4   | -2   | 6            | -2    | 7             | -2    | 8              | -3    | 9              | -4    | 11             | -5    | 12             | -7    | 13              | -9    | 14               | -11   |
| j7                        | 6   | -4   | 8            | -4    | 10            | -5    | 12             | -6    | 13             | -8    | 15             | -10   | 18             | -12   | 20              | -15   | 22               | -18   |
| j8                        | 8   | -6   | -            | -     | -             | -     | -              | -     | -              | -     | -              | -     | -              | -     | -               | -     | -                | -     |
| k5                        | 4   | 0    | 6            | 1     | 7             | 1     | 9              | 1     | 11             | 2     | 13             | 2     | 15             | 2     | 18              | 3     | 21               | 3     |
| k6                        | 6   | 0    | 9            | 1     | 10            | 1     | 12             | 1     | 15             | 2     | 18             | 2     | 21             | 2     | 25              | 3     | 28               | 3     |
| k7                        | 10  | 0    | 13           | 1     | 16            | 1     | 19             | 1     | 23             | 2     | 27             | 2     | 32             | 2     | 38              | 3     | 43               | 3     |
| k8                        | 14  | 0    | 18           | 0     | 22            | 0     | 27             | 0     | 33             | 0     | 39             | 0     | 46             | 0     | 54              | 0     | 63               | 0     |
| k9                        | 25  | 0    | 30           | 0     | 36            | 0     | 43             | 0     | 52             | 0     | 62             | 0     | 74             | 0     | 87              | 0     | 100              | 0     |
| m5                        | 6   | 2    | 9            | 4     | 12            | 6     | 15             | 7     | 17             | 8     | 20             | 9     | 24             | 11    | 28              | 13    | 33               | 15    |
| m6                        | 8   | 2    | 12           | 4     | 15            | 6     | 18             | 7     | 21             | 8     | 25             | 9     | 30             | 11    | 35              | 13    | 40               | 15    |
| m7                        | 12  | 2    | 16           | 4     | 21            | 6     | 25             | 7     | 29             | 8     | 34             | 9     | 41             | 11    | 48              | 13    | 55               | 15    |
| p6                        | 12  | 6    | 20           | 12    | 24            | 15    | 29             | 18    | 35             | 22    | 42             | 26    | 51             | 32    | 59              | 37    | 68               | 43    |
| n7                        | 14  | 4    | 20           | 8     | 25            | 10    | 30             | 12    | 36             | 15    | 42             | 17    | 50             | 20    | 58              | 23    | 67               | 27    |
| n5                        | 8   | 4    | 13           | 8     | 16            | 10    | 20             | 12    | 24             | 15    | 28             | 17    | 33             | 20    | 38              | 23    | 45               | 27    |
| n6                        | 10  | 4    | 16           | 8     | 19            | 10    | 23             | 12    | 28             | 15    | 33             | 17    | 39             | 20    | 45              | 23    | 52               | 27    |