

# STANDARD TOLERANCES MILLING, TURNING AND CUTTING - ISO 2768-1 m

## LINEAR AND ANGULAR DIMENSIONS

### LINEAR DIMENSIONS

| Permissible deviations in mm for ranges in nominal lengths | Tolerance class m (medium) |
|--|----------------------------|
| 0.5 up to 3  | $\pm 0.1$                  |
| over 3 up to 6   | $\pm 0.1$                  |
| over 6 up to 30  | $\pm 0.2$                  |
| over 30 up to 120  | $\pm 0.3$                  |
| over 120 up to 400   | $\pm 0.5$                  |
| over 400 up to 1000  | $\pm 0.8$                  |
| over 1000 up to 2000                                       | $\pm 1.2$                  |
| over 2000 up to 4000                                       | $\pm 2.0$                  |

### EXTERNAL RADIUS AND CHAMFER HEIGHTS

| Permissible deviations in mm for ranges in nominal lengths | Tolerance class m (medium) |
|--|----------------------------|
| 0.5 up to 3  | $\pm 0.2$                  |
| over 3 up to 6   | $\pm 0.5$                  |
| over 6   | $\pm 1.0$                  |

### ANGULAR DIMENSIONS

| Permissible deviations in degrees and minutes for ranges in nominal lengths | Tolerance class m (medium) |
|---|----------------------------|
| up to 10  | $\pm 1^{\circ}$            |
| over 10 up to 50  | $\pm 0^{\circ}30'$         |
| over 50 up to 120   | $\pm 0^{\circ}20'$         |
| over 120 up to 400  | $\pm 0^{\circ}10'$         |
| over 400  | $\pm 0^{\circ}5'$          |

# STANDARD TOLERANCES MILLING, TURNING AND CUTTING - ISO 2768-2 K

## FORM AND POSITION

### STRAIGHTNESS AND FLATNESS

| Ranges in nominal lengths in mm | Tolerance class K |
|---------------------------------|-------------------|
| up to 10                        | 0.05              |
| over 10 up to 30                | 0.1               |
| over 30 up to 100               | 0.2               |
| over 100 up to 300              | 0.4               |
| over 300 up to 1000             | 0.6               |
| over 1000 up to 3000            | 0.8               |

### PERPENDICULARITY

| Ranges in nominal lengths in mm | Tolerance class K |
|---------------------------------|-------------------|
| up to 100                       | 0.4               |
| over 100 up to 300              | 0.6               |
| over 300 up to 1000             | 0.8               |
| over 1000 up to 3000            | 0.8               |

### SYMMETRY

| Ranges in nominal lengths in mm | Tolerance class K |
|---------------------------------|-------------------|
| up to 100                       | 0.6               |
| over 100 up to 300              | 0.6               |
| over 300 up to 1000             | 0.8               |
| over 1000 up to 3000            | 1                 |

### RUN-OUT

| Tolerance class K |
|-------------------|
| 0.2               |

\*For cutting tolerances of aluminum profiles, see document P0000-3ENTI, Standard Tolerances Cutting & Assembly Other Products