

## General Tolerances to DIN ISO 2768

- The latest DIN standard sheet version applies to all parts made to DIN standards.
- Variations on dimensions without tolerance values are according to "DIN ISO 2768- mk".

### GENERAL TOLERANCES FOR LINEAR AND ANGULAR DIMENSIONS (DIN ISO 2768 T1)

#### LINEAR DIMENSIONS:

| Permissible deviations in mm for ranges in nominal lengths | f (fine) | Tolerance class designation (description) |            | v (very coarse) |
|--|----------|---|------------|-----------------|
|  |          | m (medium)                                | c (coarse) |                 |
| 0.5 up to 3  | ±0.05    | ±0.1                                      | ±0.2       | -               |
| over 3 up to 6   | ±0.05    | ±0.1                                      | ±0.3       | ±0.5            |
| over 6 up to 30  | ±0.1     | ±0.2                                      | ±0.5       | ±1.0            |
| over 30 up to 120  | ±0.15    | ±0.3                                      | ±0.8       | ±1.5            |
| over 120 up to 400   | ±0.2     | ±0.5                                      | ±1.2       | ±2.5            |
| over 400 up to 1000  | ±0.3     | ±0.8                                      | ±2.0       | ±4.0            |
| over 1000 up to 2000                                       | ±0.5     | ±1.2                                      | ±3.0       | ±6.0            |
| over 2000 up to 4000                                       | -        | ±2.0                                      | ±4.0       | ±8.0            |

#### EXTERNAL RADIUS AND CHAMFER HEIGHTS

| Permissible deviations in mm for ranges in nominal lengths | f (fine) | Tolerance class designation (description) |            | v (very coarse) |
|--|----------|---|------------|-----------------|
|  |          | m (middle)                                | c (coarse) |                 |
| 0.5 up to 3  | ±0.2     | ±0.2                                      | ±0.4       | ±0.4            |
| over 3 up to 6   | ±0.5     | ±0.5                                      | ±1.0       | ±1.0            |
| over 6   | ±1.0     | ±1.0                                      | ±2.0       | ±2.0            |

#### ANGULAR DIMENSIONS

| Permissible deviations in degrees and minutes for ranges in nominal lengths | f (fine) | Tolerance class designation (description) |            | v (very coarse) |
|---|----------|---|------------|-----------------|
|   |          | m (middle)                                | c (coarse) |                 |
| up to 10  | ±1°      | ±1°                                       | ±1°30'     | ±3°             |
| over 10 up to 50  | ±0°30'   | ±0°30'                                    | ±1°        | ±2°             |
| over 50 up to 120   | ±0°20'   | ±0°20'                                    | ±0°30'     | ±1°             |
| over 120 up to 400  | ±0°10'   | ±0°10'                                    | ±0°15'     | ±0°30'          |
| over 400  | ±0°5'    | ±0°5'                                     | ±0°10'     | ±0°20'          |

## GENERAL TOLERANCES FOR FORM AND POSITION (DIN ISO 2768 T2)

### STRAIGHTNESS AND FLATNESS

| Ranges in nominal lengths in mm | Tolerance class |      |     |
|---------------------------------|-----------------|------|-----|
|                                 | H               | K    | L   |
| up to 10                        | 0.02            | 0.05 | 0.1 |
| over 10 up to 30                | 0.05            | 0.1  | 0.2 |
| over 30 up to 100               | 0.1             | 0.2  | 0.4 |
| over 100 up to 300              | 0.2             | 0.4  | 0.8 |
| over 300 up to 1000             | 0.3             | 0.6  | 1.2 |
| over 1000 up to 3000            | 0.4             | 0.8  | 1.6 |

### PERPENDICULARITY

| Ranges in nominal lengths in mm | Tolerance class |     |     |
|---------------------------------|-----------------|-----|-----|
|                                 | H               | K   | L   |
| up to 100                       | 0.2             | 0.4 | 0.6 |
| over 100 up to 300              | 0.3             | 0.6 | 1   |
| over 300 up to 1000             | 0.4             | 0.8 | 1.5 |
| over 1000 up to 3000            | 0.5             | 0.8 | 2   |

### SYMMETRY

| Ranges in nominal lengths in mm | Tolerance class |     |     |
|---------------------------------|-----------------|-----|-----|
|                                 | H               | K   | L   |
| up to 100                       | 0.5             | 0.6 | 0.6 |
| over 100 up to 300              | 0.5             | 0.6 | 1   |
| over 300 up to 1000             | 0.5             | 0.8 | 1.5 |
| over 1000 up to 3000            | 0.5             | 1   | 2   |

### RUN-OUT

| Tolerance class |     |     |
|-----------------|-----|-----|
| H               | K   | L   |
| 0.1             | 0.2 | 0.5 |