# 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 | ±1º | ±1º | ±1º30' | ±3º |
| over 10 up to 50 | ±0º30' | ±0º30' | ±1º | ±2º |
| over 50 up to 120 | ±0º20' | ±0º20' | ±0º30' | ±1º |
| over 120 up to 400 | ±0º10' | ±0º10' | ±0º15' | ±0º30' |
| over 400 | ±0º5' | ±0º5' | ±0º10' | ±0º20' |

# 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 |