

General Tolerances ISO 2768-1

Linear Dimensions

Nominal length range (mm)	f (fine)	m (medium)	c (coarse)	v (very 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

Tolerance class designation (description)				
Nominal length range (mm)	f (fine)	m (medium)	c (coarse)	v (very 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 up to 30	±1.0	±1.0	±2.0	±2.0

Angular Dimensions

Tolerance class designation (description)				
Angular deviations (° ')	f (fine)	m (medium)	c (coarse)	v (very 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°20'	±0°30'
over 400	±0°5'	±0°5'	±0°10'	±0°20'

Straightness and Flatness

Tolerance class			
Ranges in nominal lengths(mm)	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

Tolerance class			
Ranges in nominal lengths(mm)	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	1	2

Angular Dimensions

Tolerance class			
Ranges in nominal lengths(mm)	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

Circule Run-Ou

Tolerance class			
Ranges in nominal lengths(mm)	H	K	L
	0.1	0.2	0.5