

Tolerance Machined components according to EN/ISO 2768 – Class m (Medium)
 (Used for the following processes.: CNC machining, cutting, drilling, threading, laser cutting)

LINEAR DIMENSIONS

Permissible deviations in mm for ranges in nominal lengths	Tolerance class designation (description)			
	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

Permissible deviations in mm for ranges in nominal lengths	Tolerance class designation (description)			
	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	±1.0	±1.0	±2.0	±2.0

ANGULAR DIMENSIONS

Permissible deviations in degrees and minutes for ranges in nominal lengths	Tolerance class designation (description)			
	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°15'	±0°30'

Tolerance Cold formed components and welded constructions according to EN/ISO 13920 - Class B
 (Used for the following processes.: Tube-profile bending and rolling, wire bending, sheet metal working and welding)

Table 1: Tolerances for linear dimensions

Tolerance class	Range of nominal sizes, <i>l</i> , in mm										
	2 to 30	Over 30 to 120	Over 120 to 400	Over 400 to 1000	Over 1000 to 2000	Over 2000 to 4000	Over 4000 to 8000	Over 8000 to 12000	Over 12000 to 16000	Over 16000 to 20000	Over 20000
Tolerances, <i>t</i> , in mm											
A		±1	±1	±2	±3	±4	±5	±6	±7	±8	±9
B	±1	±2	±2	±3	±4	±6	±8	±10	±12	±14	±16
C		±3	±4	±6	±8	±11	±14	±18	±21	±24	±27
D		±4	±7	±9	±12	±16	±21	±27	±32	±36	±40

Table 2: Tolerances for angular dimensions

Tolerance class	Range of nominal sizes, <i>l</i> , in mm (length or shorter leg)		
	Up to 400	Over 400 up to 1000	Over 1000
Tolerances, $\Delta\alpha$, (in degrees and minutes)			
A	±20	±15	±10
B	±45	±30	±20
C	±1°	±45	±30
D	±1°30	±1°15	±1°