



Tolerance guide



ALFA MIMtech

metal injection moulding technologies



The dimensional and geometrical tolerances, finishes and other characteristics are generally based on the norms laid out in the ISO-2768-mK certification. The norm is applied in general terms, but it is possible to achieve greater precision in certain areas, dimensions or characteristics.

LINEAR DIMENSIONS			
Dimension (mm)		Tolerance mm(%)	
from	to	ISO2768-mK Standard	Optimum achievable
0,5	3	±0.1 (±8.0%)	±0.025 (±0,8%)
3	6	±0,1 (±1,6%)	±0.030 (±0.5%)
6	30	±0,2 (±0,6%)	±0.120 (±0.4%)
30	120	±0,3 (±0.3%)	±0.3 (±0.3%)
120	400	±0,5 (±0.3%)	±0,5 (±0.3%)
400	1000	±0,8 (±0.3%)	±0,8 (±0.3%)
1000	2000	±1,2 (±0.3%)	±1,2 (±0.3%)
2000	4000	±2 (±0.3%)	±2 (±0.3%)

ANGULAR DIMENSIONS			
Dimension (mm)		Tolerance °	
from	to	ISO2768-mK Standard	Optimum achievable
0	10	±1°	±1°
10	50	±0°30'	±0°30'
50	120	±0°20'	±0°20'
120	400	±0°10'	±0°10'
	>400	±0°5'	±0°5'



EXTERNAL RADII AND CHAMFER HEIGHT			
Dimension (mm)		Tolerance (mm)	
from	to	ISO2768-mK Standard	Optimum achievable
0,5	3	±0,2	±0,2
3	6	±0,5	±0,5
	>6	±1,0	±1,0

STRAIGHTNESS AND FLATNESS			
Dimension (mm)		Tolerance (mm)	
from	to	ISO2768-mK Standard	Optimum achievable
0	10	0,05	0,02
10	30	0,1	0,05
30	100	0,2	0,1
100	300	0,4	0,2
300	1000	0,6	0,3
1000	3000	0,8	0,4

PERPENDICULARITY			
Dimension (mm)		Tolerance (mm)	
from	to	ISO2768-mK Standard	Optimum achievable
0	100	0,4	0,2
100	300	0,6	0,3
300	1000	0,8	0,4
1000	3000	0,8	0,5

SYMMETRY			
Dimension (mm)		Tolerance (mm)	
from	to	ISO2768-mK Standard	Optimum achievable
0	100	0,6	0,5
100	300	0,6	0,5
300	1000	0,8	0,5
1000	3000	1	0,5

OTHER CHARACTERISTICS		
Characteristic	ISO2768-mK Standard	Optimum achievable
Roughness Ra	0,8µm	0,2µm
Roundness	0,003	0,003