

## Size tolerances

		"General tolerances for linear and angular dimensions (DIN ISO 2768 T1)"			"General tolerances for form and position (DIN ISO 2768 T2)"			
		Linear dimensions	External radius and chamfer heights	Angular dimensions	Straightness and flatness	Perpendicularity	Symmetry	Run-out
<b>Jacob flexible connections</b>								
	FDM	v	v	v				
	FSC	v	v	v				
	Accessories							
	Quick connect clamp	v	v	v				
	Bolt connect clamp	v	v	v				
	Quick connect safety release clamp	v	v	v				
	TFL adapter flange	v	v	v				
	Gasket seals	v	v	v				
	Endcaps	v	v	v				
<b>Triclamp flexible connections</b>								
	LFR	v	v	v				
	LFDDC	v	v	v				
	Hecht	v	v	v				
	CFL	v	v	v				
	Accessories							
	Tri clamps	m	m	m				
	Tri-clamp ferrules	m	m	m				
	Tri-clamp gasket	m	m	m				
<b>Flexible connections</b>								
	Hose clamp fitted	v	v	v				
	Flange fitted	v	v	v				
	Hose clamps	v	v	v				
<b>Weighing flexible connections</b>								
	Silicone weighing bellows	v	v	v				
	Step bellow	v	v	v				
	Hose clamps	v	v	v				
<b>Hoses</b>								
	Poly Urethane hose on roll	v	v	v				
	Seamless Silicone hose on roll	v	v	v				
	Hose clamps	v	v	v				
<b>Innovative seals</b>								
	Inflatable bag clamps	v	v	v				
	Spray shields	v	v	v				
	Hose clamps	v	v	v				
	Pipetide	v	v	v				

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	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 mm 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'
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			FLX
	H	K	L	
up to 100	0.2	0.4	0.6	2
over 100 up to 300	0.3	0.6	1	3
over 300 up to 1000	0.4	0.8	1.5	4
over 1000 up to 3000	0.5	0.8	2	5

SYMMETRY				
Ranges in nominal lengths in mm	Tolerance class			FLX
	H	K	L	
up to 100	0.5	0.6	0.6	2
over 100 up to 300	0.5	0.6	1	3
over 300 up to 1000	0.5	0.8	1.5	4
over 1000 up to 3000	0.5	1	2	5

RUN-OUT			
Ranges in nominal lengths in mm	Tolerance class		
	H	K	L
	0.1	0.2	0.5