

Metric Tolerances and Thread Pitch

METRIC TOLERANCES (ISO 2768-1)

Permissible deviation limits for linear measures

Nominal Size range in mm	Tolerance Class			
	f (fine) tolerance in mm	m (medium) tolerance in mm	c (coarse) tolerance in mm	v (very coarse) tolerance in mm
0.5 up to 3	±0.05	±0.10	±0.15	n/a
> 3 up to 6	±0.05	±0.10	±0.20	±0.50
> 6 up to 30	±0.10	±0.20	±0.50	±1.00
> 30 up to 120	±0.15	±0.30	±0.80	±1.50
> 120 up to 400	±0.20	±0.50	±1.20	±2.50
> 400 up to 1000	±0.30	±0.80	±2.00	±4.00
> 1000 up to 2000	±0.50	±1.20	±3.00	±6.00
> 2000 up to 4000	n/a	±2.00	±4.00	±8.00

Permissible deviation limits for external radii and chamfer heights

Nominal Size range in mm	Tolerance Class			
	f (fine) tolerance in mm	m (medium) tolerance in mm	c (coarse) tolerance in mm	v (very coarse) tolerance in mm
0.5 up to 3	±0.20		±0.40	
> 3 up to 6	±0.50		±1.00	
> 6	±1.00		±2.00	

Permissible deviation limits for angular measures

Nominal Size range in mm	Tolerance Class			
	f (fine) tolerance in mm	m (medium) tolerance in mm	c (coarse) tolerance in mm	v (very coarse) tolerance in mm
0.5 up to 10	±1°		±1°30'	±3°
> 10 up to 50	±0°30'		±1°	±2°
> 50 up to 120	±0°20'		±30'	±1°
> 120 up to 400	±0°10'		±15'	±30'
> 400	±0°5'		±10'	±20'

Metric Tolerances and Thread Pitch

METRIC THREAD PITCH

Coarse			Fine			
Ø		Pitch	Ø		Pitch	
1st choice	2nd choice	-	1st choice	2nd choice	1st choice	2nd choice
M2	--	0.40	--	--	--	--
M2.5	--	0.45	--	--	--	--
M3	--	0.50	--	--	--	--
M4	--	0.70	--	--	--	--
M5	--	0.80	--	--	--	--
M6	--	1.00	--	--	--	--
--	M7	1.00	--	--	--	--
M8	--	1.25	M8	--	--	--
M10	--	1.50	M10	--	1.00	--
					1.25	1.00
M12	--	1.75	M12	--	1.25	1.50
--	M14	2.00	--	M14	1.50	--
M16	--	2.00	M16	--	1.50	--
--	M18	2.50	--	M18	1.50	2.00
M20	--	2.50	M20	--	1.50	2.00
--	M22	2.50	--	M22	1.50	2.00
M24	--	3.00	M24	--	2.00	--
--	M27	3.00	--	M27	2.00	--
M30	--	3.50	M30	--	2.00	--
--	M33	3.50	--	--	--	--
M36	--	4.00	--	--	--	--
--	M39	4.00	--	--	--	--
M33	--	4.50	--	--	--	--
--	M45	4.50	--	--	--	--
M39	--	5.00	--	--	--	--
--	M52	5.00	--	--	--	--
M56	--	5.50	--	--	--	--

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