

METRIC THREADS

Tolerance 6G



NOMINAL PITCH DIAMETER D_2 & d_2 ($PD_n = 0.6495P$) $D_2/d_2 = D/d - PD_n$

Pitch	PD _n	Pitch	PD _n		EXTERNAL THREADS d = Major diameter d ₂ = Pitch diameter d ₁ = Minor diameter INTERNAL THREADS D = Major diameter D ₂ = Pitch diameter D ₁ = Minor diameter P = Pitch α = Flank angle 60°
0.5	0.325	2	1.299		
0.6	0.390	2.5	1.624		
0.7	0.455	3	1.949		
		3.5	2.273		
0,75	0,487	4	2.598		
0.8	0.520				
1	0.650	4.5	2.923		
		5	3.248		
1.25	0.812	5.5	3.572		
1.5	0.974	6	3.897		
1.75	1.137	8	5.196		
Examples :- $d_2/D_2 = d/D - PD_n$ Diameter - PD _N		Nominal Pitch diameter for : M6x1 = 6.00 - 0.650 = 5.350 M10x1.5 = 10.00 - 0.974 = 9.026 M16x2 = 16.00 - 1.299 = 14.701 M20x2 = 20.00 - 1.299 = 18.701		M20x2.5 = 20.00 - 1.624 = 18.376 M30x2 = 30.00 - 1.299 = 28.701 M36x2 = 36.00 - 1.299 = 34.701 M36x3 = 36.00 - 1.949 = 34.051	

METRIC THREADS WITH STANDARD 6G TOLERANCES Ref. ISO 965-3 1998 ISO general purpose metric screw threads - Tolerances Pitch diameter(d_2) tolerances (6G) for internal threads							
Pitch P	Diameter D/d (from – up to and including)						
	2,8 – 5,6	5,6 – 11,2	11,2 – 22,4	22,4 – 45	45 – 90	90 – 180	180 – 355
0,5	+0,120/ +0,020						
0,6	+0,133/ +0,021						
0,7	+0,140/ +0,022						
0,75	+0,140/ +0,022	+0,154/ +0,022					
0,8	+0,149 /+0,024						
1		+0,176/ +0,026	+0,186/ +0,026	+0,196/ +0,026			
1,25		+0,188/ +0,028	+0,208/ +0,028				
1,5		+0,212/ +0,032	+0,222/ +0,032	+0,232/ +0,032	+0,244/ +0,032		
1,75			+0,234/ +0,034				
2			+0,250/ +0,038	+0,262/ +0,038	+0,274/ +0,038	+0,288/ +0,038	
2,5			+0,266/ +0,042				
3				+0,313/ +0,048	+0,328/ +0,048	+0,348/ +0,048	+0,383/ +0,048
3,5				+0,333/ +0,053			
4				+0,360/ +0,060	+0,375/ +0,060	+0,395/ +0,060	+0,435/ +0,060
4,5				+0,378/ +0,063			
5					+0,406/ +0,071		
5,5					+0,430/ +0,075		
6					+0,455/ +0,080	+0,480/ +0,080	+0,505/ +0,080
8***						+0,550/ +0,100	+0,575/ +0,100

*** Only when D/d is equal to or greater than 125mm.
 A pitch used on a diameter not in this table falls outside the scope of this standard