

METRIC THREADS

Tolerance 7H



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

Pitch	PDn	Pitch	PDn		EXTERNAL THREADS d = Major diameter d ₂ = Pitch diameter d ₁ = Minor diameter	
0.5	0.325	2	1.299		Nominal Pitch diameter for : M6x1 = 6.00 - 0.650 = 5.350 M20x2.5 = 20.00 - 1.624 = 18.376 M10x1.5 = 10.00 - 0.974 = 9.026 M30x2 = 30.00 - 1.299 = 28.701 M16x2 = 16.00 - 1.299 = 14.701 M36x2 = 36.00 - 1.299 = 34.701 M20x2 = 20.00 - 1.299 = 18.701 M36x3 = 36.00 - 1.949 = 34.051	INTERNAL THREADS D = Major diameter D ₂ = Pitch diameter D ₁ = Minor diameter P = Pitch α = Flank angle 60°
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	4.5	2.923			
1	0.650	5	3.248			
		5.5	3.572			
1.25	0.812	6	3.897			
1.5	0.974	8	5.196			
1.75	1.137					
Examples :- $d_2/D_2 = d/D - PDn$ Diameter - PD _N						

METRIC THREADS WITH STANDARD 7H TOLERANCES Ref. ISO 965-3 1998 ISO general purpose metric screw threads - Tolerances Pitch diameter(d_2) tolerances (7H) 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	+0,125 / -0						
0,6	+0,140 / -0						
0,7	+0,150 / -0						
0,75	+0,150 / -0	+0,170 / -0					
0,8	+0,160 / -0						
1		+0,190 / -0	+0,200 / -0	+0,212 / -0			
1,25		+0,200 / -0	+0,224 / -0				
1,5		+0,224 / -0	+0,236 / -0	+0,250 / -0	+0,265 / -0		
1,75			+0,250 / -0				
2			+0,265 / -0	+0,280 / -0	+0,300 / -0	+0,315 / -0	
2,5			+0,280 / -0				
3				+0,335 / -0	+0,355 / -0	+0,375 / -0	+0,425 / -0
3,5				+0,355 / -0			
4				+0,375 / -0	+0,400 / -0	+0,425 / -0	+0,475 / -0
4,5				+0,400 / -0			
5					+0,425 / -0		
5,5					+0,450 / -0		
6					+0,475 / -0	+0,500 / -0	+0,530 / -0
8***						+0,560 / -0	+0,600 / -0

*** 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