

METRIC THREADS

Tolerance 4h



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
0.5	0.325	2	1.299		INTERNAL THREADS D = Major diameter D₂ = 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		
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 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			

METRIC THREADS WITH STANDARD 4h TOLERANCES Ref. ISO 965-3 1998 ISO general purpose metric screw threads - Tolerances							
Pitch diameter(d_2) tolerances (4h) for external 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	+0,000 / -0,048						
0,6	+0,000 / -0,053						
0,7	+0,000 / -0,056						
0,75	+0,000 / -0,056	+0,000 / -0,063					
0,8	+0,000 / -0,060						
1		+0,000 / -0,071	+0,000 / -0,075	+0,000 / -0,080			
1,25		+0,000 / -0,075	+0,000 / -0,085				
1,5		+0,000 / -0,085	+0,000 / -0,090	+0,000 / -0,095	+0,000 / -0,100		
1,75			+0,000 / -0,095				
2			+0,000 / -0,100	+0,000 / -0,106	+0,000 / -0,112	+0,000 / -0,118	
2,5			+0,000 / -0,106				
3				+0,000 / -0,125	+0,000 / -0,132	+0,000 / -0,140	+0,000 / -0,160
3,5				+0,000 / -0,132			
4				+0,000 / -0,140	+0,000 / -0,150	+0,000 / -0,160	+0,000 / -0,180
4,5				+0,000 / -0,150			
5					+0,000 / -0,160		
5,5					+0,000 / -0,170		
6					+0,000 / -0,180	+0,000 / -0,190	+0,000 / -0,200
8***						+0,000 / -0,212	+0,000 / -0,224

*** 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