

METRIC THREADS

Tolerance 6f



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		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°
0.6	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 :- $d_2/D_2 = d/D - PD_n$ 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 6f TOLERANCES Ref. ISO 965-3 1998 ISO general purpose metric screw threads - Tolerances Pitch diameter(d_2) tolerances (6f) 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	-0,036 / -0,111						
0,6	-0,036 / -0,121						
0,7	-0,038 / -0,128						
0,75	-0,038 / -0,128	-0,038 / -0,138					
0,8	-0,038 / -0,133						
1		-0,040 / -0,152	-0,040 / -0,158	-0,040 / -0,165			
1,25		-0,042 / -0,160	-0,042 / -0,174				
1,5		-0,045 / -0,177	-0,045 / -0,185	-0,045 / -0,195	-0,045 / -0,205		
1,75			-0,048 / -0,198				
2			-0,052 / -0,212	-0,052 / -0,222	-0,052 / -0,232	-0,052 / -0,242	
2,5			-0,058 / -0,228				
3				-0,063 / -0,263	-0,063 / -0,275	-0,063 / -0,287	-0,063 / -0,313
3,5				-0,070 / -0,282			
4				-0,075 / -0,299	-0,075 / -0,311	-0,075 / -0,325	-0,075 / -0,355
4,5				-0,080 / -0,316			
5					-0,085 / -0,335		
5,5					-0,090 / -0,355		
6					-0,095 / -0,375	-0,095 / -0,395	-0,095 / -0,410
8***						-0,118 / -0,453	-0,118 / -0,473

*** 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