

METRIC THREADS

Tolerance 6g



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

mm to ins. / 25,4 (all dimensions are in mm)

ins. to mm x 25,4

Pitch	PDn	Pitch	PDn		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	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				

Nominal Pitch diameter for :

Examples :-	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
$d_2/D_2 = d/D - PDn$	M16x2 = 16.00 - 1.299 = 14.701	M36x2 = 36.00 - 1.299 = 34.701
Diameter - PD _N	M20x2 = 20.00 - 1.299 = 18.701	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 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	-0,020 / -0,095						
0,6	-0,021 / -0,106						
0,7	-0,022 / -0,112						
0,75	-0,022 / -0,112	-0,022 / -0,122					
0,8	-0,024 / -0,119						
1		-0,026 / -0,138	-0,026 / -0,144	-0,026 / -0,151			
1,25		-0,028 / -0,146	-0,028 / -0,160				
1,5		-0,032 / -0,164	-0,032 / -0,172	-0,032 / -0,182	-0,032 / -0,192		
1,75			-0,034 / -0,184				
2			-0,038 / -0,198	-0,038 / -0,208	-0,038 / -0,218	-0,038 / -0,228	
2,5			-0,042 / -0,212				
3				-0,048 / -0,248	-0,048 / -0,260	-0,048 / -0,272	-0,048 / -0,298
3,5				-0,053 / -0,265			
4				-0,060 / -0,284	-0,060 / -0,296	-0,060 / -0,310	-0,060 / -0,340
4,5				-0,063 / -0,299			
5					-0,071 / -0,321		
5,5					-0,075 / -0,340		
6					-0,080 / -0,360	-0,080 / -0,380	-0,080 / -0,395
8***						-0,100 / -0,435	-0,100 / -0,455

*** 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