FLEXIBLE MEASURING SYSTEMS

METRIC THREADS

Tolerance 6e

FMS

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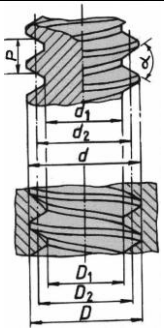
NOMINAL PITCH DIAMETER D_2 & d_2 (*PDn = 0.6495P*) *$D_2/d_2 = D/d - PDn$*

Pitch	PDn	Pitch	PDn
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**



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°

Examples :-

d_2/D_2 = d/D - PDn
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 *6e* TOLERANCES
Ref. ISO 965-3 1998 ISO general purpose metric screw threads - Tolerances

Pitch diameter($/d_2$) tolerances (6e) 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	-0,050 / -0,125						
0,6	-0,053 / -0,138						
0,7	-0,056 / -0,146						
0,75	-0,056 / -0,146	-0,056 / -0,156					
0,8	-0,060 / -0,155						
1		-0,060 / -0,172	-0,060 / -0,178	-0,060 / -0,185			
1,25		-0,063 / -0,181	-0,063 / -0,195				
1,5		-0,067 / -0,199	-0,067 / -0,207	-0,067 / -0,217	-0,067 / -0,227		
1,75			-0,071 / -0,221				
2			-0,071 / -0,231	-0,071 / -0,241	-0,071 / -0,251	-0,071 / -0,261	
2,5			-0,080 / -0,250				
3				-0,085 / -0,285	-0,085 / -0,297	-0,085 / -0,309	-0,085 / -0,335
3,5				-0,090 / -0,302			
4				-0,095 / -0,319	-0,095 / -0,331	-0,095 / -0,345	-0,095 / -0,375
4,5				-0,100 / -0,336			
5					-0,106 / -0,356		
5,5					-0,112 / -0,377		
6					-0,118 / -0,398	-0,118 / -0,418	-0,118 / -0,433
8* **						-0,140 / -0,475	-0,140 / -0,495

*** 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