

Bag full of wisdom when you are in trouble

No.132

【Question】



I work for a tool agency, and one of my customers has requested a spiral fluted tap for machining an M8 thread in a blind hole in steel. Looking at the catalog under the M8 section, I see various pitches such as 1.25, 1, and 0.75. Which one should I order?

【Answer】

In this case, based on the ISO standard, a coarse pitch tap with a pitch of 1.25 would be appropriate. However, please double-check to make sure this pitch meets the customer's needs.

For metric threads, there are coarse and fine pitch threads. For coarse pitch threads, the pitch is fixed for each nominal diameter. Please see the details below.



【Explanation】

Coarse Pitch Threads:

These are the most common type of threads, with a standard combination of nominal diameter and pitch. For metric coarse threads, the pitch can be omitted when stating the thread designation.

Therefore, in the example above, "M8 × 1.25" can simply be written as "M8."

Fine Pitch Threads:

Compared with coarse threads, fine threads have a smaller pitch relative to the nominal diameter. Fine threads can have multiple pitches for the same nominal diameter so the pitch must always be specified.

For example, if the nominal diameter is 8 mm and the pitch is 1 mm, it should be written as "M8 × 1."



< Excerpt from the General Catalog >

■ Metric Threads

Unit : mm

Nominal Dia.			Pitch*									
Column 1	Column 2	Column 3	Coarse	Fine								
1			0.25									0.2
1.2	1.1		0.25									0.2
			0.25									0.2
1.6	1.4		0.3									0.2
	1.8		0.35									0.2
			0.35									0.2
2			0.4									0.2
	2.2		0.45								0.25	0.25
2.5			0.45								0.35	
3			0.5								0.35	
4	3.5		0.6								0.35	
			0.7						0.5			
5	4.5		0.75						0.5			
			0.8						0.5			
6		5.5	1						0.75			
	7		1						0.75			
8			1.25					1	0.75			
		9	1.25					1	0.75			
10			1.5				1.25	1	0.75			
		11	1.5					1	0.75			

It's very useful to memorize the coarse pitches for the sizes that are most commonly used in the market!

