

Thread Pitch & Tap-Drill Chart

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Every inch-size fastener has a **thread pitch** — threads per inch, the second number in a size like **1/2-13**. Most sizes come in **coarse (UNC)**, quicker and more forgiving, and **fine (UNF)**, a little stronger and better against vibration. **Tap drill** = the hole to drill before you tap, for a ~70–75% thread (decimal beside each). Unified inch threads, ASME B1.1.

	COARSE — UNC		FINE — UNF	
SIZE	THREADS / IN	TAP DRILL	THREADS / IN	TAP DRILL
#4	40	#43 0.0890	48	#42 0.0935
#6	32	#36 0.1065	40	#33 0.1130
#8	32	#29 0.1360	36	#29 0.1360
#10	24	#25 0.1495	32	#21 0.1590
#12	24	#16 0.1770	28	#14 0.1820
1/4"	20	#7 0.2010	28	#3 0.2130
5/16"	18	F 0.2570	24	I 0.2720
3/8"	16	5/16" 0.3125	24	Q 0.3320
7/16"	14	U 0.3680	20	25/64" 0.3906
1/2"	13	27/64" 0.4219	20	29/64" 0.4531
9/16"	12	31/64" 0.4844	18	33/64" 0.5156
5/8"	11	17/32" 0.5312	18	37/64" 0.5781
3/4"	10	21/32" 0.6562	16	11/16" 0.6875
7/8"	9	49/64" 0.7656	14	13/16" 0.8125
1"	8	7/8" 0.8750	12	59/64" 0.9219
1-1/8"	7	63/64" 0.9844	12	1-3/64" 1.0469
1-1/4"	7	1-7/64" 1.1094	12	1-11/64" 1.1719
1-3/8"	6	1-7/32" 1.2188	12	1-19/64" 1.2969
1-1/2"	6	1-11/32" 1.3438	12	1-27/64" 1.4219

1/2"-13 UNC diameter – threads per inch – series.
Higher number = finer thread.

Which pitch is it? Hold the bolt's threads against the actual-size strips below — the strip whose peaks land in every groove is your pitch. The coarse size that uses it is listed beside each number.

ACTUAL-SIZE THREAD STRIPS

coarse (UNC) pitches, each 2" long

20 tpi 1/4"	~~~~~
16 tpi 3/8"	~~~~~
13 tpi 1/2"	~~~~~
11 tpi 5/8"	~~~~~
9 tpi 7/8"	~~~~~

18 tpi 5/16"	~~~~~
14 tpi 7/16"	~~~~~
12 tpi 9/16"	~~~~~
10 tpi 3/4"	~~~~~
8 tpi 1"	~~~~~



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Print at Actual Size (100%) — not "fit to page."
This bar should measure exactly 2":

