Understanding Screw Sizes - Inch Standards

Screws with a diameter smaller than 1/4" have a nominal size indicated by a number (e.g. #8 or #10). 1/4" and larger diameters are shown as inches. The diameter refers to the major diameter, or outside edge, of the threads. If the screw size includes a dash with a number following it, that is the number of threads per inch (tpi). Usually tpi is only shown with machine screws or other fasteners with machine screw threads.

So, a 1/4-20 screw has a 1/4" diameter (.250") with 20 threads per inch.

Sometimes the terms "coarse" (or UNC/Unified Coarse Thread) or "fine" (UNF/Unified Fine Thread) are used to describe the thread. The term does not refer to the quality of the thread but rather to the frequency of threads per inch. "Fine" has more threads per inch than "coarse".

Specific hole diameters vary according to the materials being fastened. For maximum performance, refer to the performance data and installation instructions for the specific fastener being used. For machine screws in metal, a hole .08" larger than the diameter is standard.

Nominal Diameter	Basic Major Diameter	
	Inch	mm
#000	0.034	0.860
#00	0.047	1.190
#0	0.060	1.524
#1	0.073	1.854
#2	0.086	2.184
#3	0.099	2.515
#4	0.112	2.845
#5	0.125	3.175
#6	0.138	3.500
#8	0.164	4.166
#10	0.190	4.826
#12	0.216	5.486
1/4"	0.250	6.350
1/16"	0.311	7.894
5/16"	0.313	7.940
3/8"	0.375	9.530
1/8"	0.404	10.271
7/16"	0.438	11.110
1/2"	0.500	12.700
9/16"	0.563	14.290
5/8"	0.625	15.880
3/8"	0.671	17.054
11/16"	0.688	17.460
3/4"	0.750	19.050
13/16"	0.813	20.640
1/2"	0.836	21.222
7/8"	0.875	22.230
15/16"	0.938	23.810
1"	1.000	25.400

Common Screw Size Conversion Chart



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