



Permanent Technologies
“Tinelok™ ®” Vibration Proof Fastening System

UNC, UNF, UNEF, UNS

Screw thread gauges to 1 inch in diameter

These series (and the [UNR](#), [UNJ](#) and [fixed-pitch](#) series) are the inch-based thread series currently used in the United States, and have been since 1949. They superseded the [American National Series](#) (NC, NF, etc.) Pink shading indicates secondary sizes whose use is discouraged by standards organizations. See this [table](#) for diameters of twist drills.

The tap drill sizes are listed in the order in which the threads per inch (tpi) are listed in the previous column.

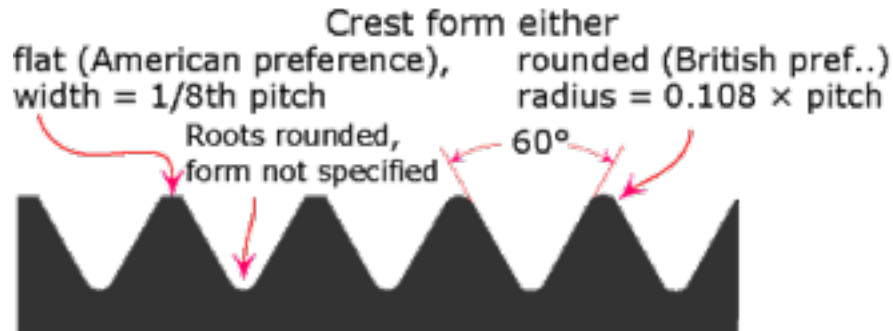
Gage and Fractional Sizes	Major diam. (inches)	Clearance Drill	UNC tpi	Tap Drill for UNC	UNF tpi	Tap Drill for UNF	UNEF tpi	UNS tpi	Tap drill for UNS	Nut Size
0	0.060	#52	—	—	80	³ / ₆₄ "	—	—	—	5/32"
1	0.073	#48	64	#52	72	#53	—	—	#54	5/32"
2	0.086	#43	56	#50	64	#50	—	—	—	3/16"
3	0.099	#37	48	#47	56	#45	—	—	—	3/16"
4	0.112	#32	40	#43	48	#42	—	32, 36	#45, #44	1/4"
5	0.125	#30	40	#39	44	#37	—	36	#40	1/4"
6	0.138	#27	32	#36	40	#33	—	36	#34	5/16"
8	0.164	#18	32	#29	36	#29	—	30, 40	#30, #28	11/32"
								28, 36,	#23, #22	

10	0.19	#9	24	#25	32	#21		40, 48, 56, 30		3/8"
12	0.216	#2	24		28		32	36, 40, 48, 56	#13	7/16"
1/4"	0.25	F	20	#7	28	#3	32	24, 27, 32, 36, 40, 48, 56	4, 3, 7/32"	7/16"
5/16"	0.3125	P	18	F	24	I	32	20, 27, 28, 36, 40 48	17/64", J, 9/32	9/16"
3/8"	0.375	W	16	5/16"	24	Q	32	18, 27, 36, 40		5/8"
0.39	0.39	25/64	—	—	—	—	—	27		

$\frac{7}{16}$ "	0.4375	$\frac{29}{64}$ "	14	U	20	$\frac{25}{64}$ "	28	18, 24, 27		
$\frac{1}{2}$ "	0.5000	$\frac{33}{64}$ "	13 (see note 2)	$\frac{27}{64}$ "	20	$\frac{29}{64}$ "	28	12, 14, 18, 24, 27		$\frac{3}{4}$ "
$\frac{9}{16}$ "	0.5625	$\frac{9}{16}$ "	12	$\frac{31}{64}$ "	18	$\frac{33}{64}$ "	24	14, 27		
$\frac{5}{8}$ "	0.625	$\frac{5}{8}$ "	11	$\frac{17}{32}$ "	18	$\frac{37}{64}$ "	24	14, 27		
$\frac{11}{16}$ "	0.68753	$\frac{11}{16}$ "					24	—		
$\frac{3}{4}$ "	0.75	$\frac{3}{4}$ "	10	$\frac{21}{32}$ "	16		20	14, 18, 24		$1\frac{1}{8}$ "
$\frac{13}{16}$ "	0.8125	$\frac{13}{16}$ "	—	—	—	—	20	—		
$\frac{7}{8}$ "	0.875	$\frac{7}{8}$ "	9	$\frac{49}{64}$ "	14		20	10, 18, 24, 27		$1\frac{5}{16}$ "
$\frac{15}{16}$ "	0.9375	$\frac{15}{16}$ "	—	—	—	—	20	—		
1"	1	1"	8	$\frac{7}{8}$ "	14		20	10, 14, 18, 24,		1½"

History

The differences between American and British thread forms became a painful problem during the Second World War, especially in manufacturing and repairing airplane engines. In 1948 representatives of Britain, Canada and the United States agreed on a Unified Standard.



In the compromise the British accepted the 60° thread angle, and the Americans accepted rounded roots and optionally rounded crests. Five classes of fit were defined. The new fasteners continued to fit, for most practical purposes, ones manufactured under the old American National Standards. NC became UNC, NF became UNF, etc.

The UNS series is a catch-all category for threads which have the American Standard form, but whose pitches are not in the Unified Coarse (UNC) or Unified Fine (UNF) series.

Nomenclature

- UNC: Unified National Coarse
- UNF: Unified National Fine
- UNEF: Unified National Extra Fine
- UNS: Unified National Special

“Tinelok™®” Vibration Proof Fastening System from Permanent Technologies!!!

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