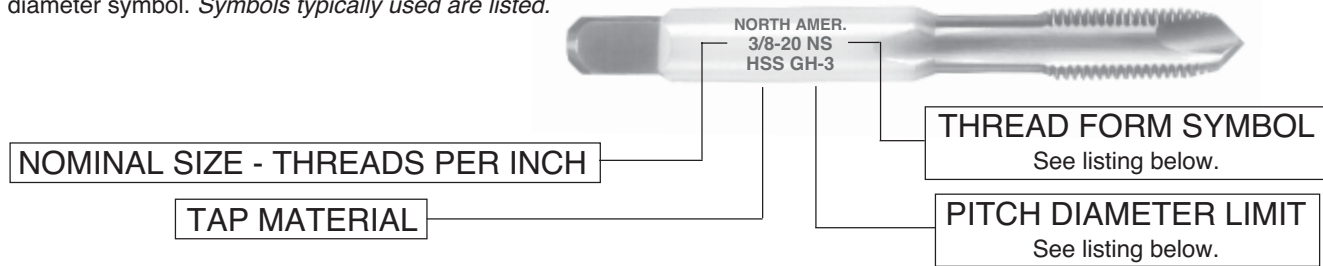


SPECIAL TAPS

ENGINEERING DATA

STANDARD SYSTEM OF TAP MARKING

Taps, dies and other types of threading tools are marked according to the Standard System of Marking Ground Thread Taps. Tools are marked with the nominal size, number of threads per inch (pitch), and the appropriate thread form symbol and pitch diameter symbol. *Symbols typically used are listed.*



PITCH DIAMETER LIMIT SYMBOLS

All standard ground thread taps are marked with the letter "G" to designate Ground Thread. The letter G will be followed by the letter "H" to designate above basic; or the letter "L" to designate below basic. The number following H or L signifies the number of .0005" steps above or below the basic pitch diameter. *For instance, the tap pictured above is a 3/8" dia. tap with 20 threads per inch (pitch), and has a NS (American National Special Thread) thread form. The tap is made from High Speed Steel, and the GH-3 pitch diameter limit symbol indicates a Ground Thread tap with pitch diameter limits .0010 to .0015 over basic.*

Pitch Diameter Limits for taps to 1" diameter inclusive:

- L1 = Basic to Basic minus .0005
- H1 = Basic to Basic plus .0005
- H2 = Basic plus .0005 to Basic plus .0010
- H3 = Basic plus .0010 to Basic plus .0015
- H4 = Basic plus .0015 to Basic plus .0020
- H5 = Basic plus .0020 to Basic plus .0025
- H6 = Basic plus .0025 to Basic plus .0030

Taps larger than 1" dia. are ground to a .0010" tolerance on the pitch diameter and are, for example,

- H4 (Basic plus .0010" to Basic plus .0020").

THREAD FORM SYMBOLS

ACME-C	Acme Thread-Centralizing	NPTF	Dryseal American National Standard Taper Pipe Thread
ACME-G	Acme Thread-General Purpose	NPTR	American National Standard Taper Pipe Thread for Railing Joints (Tap marked NPT)
AMO	American Standard Microscope Objective Thread	NS	American National Thread-Special
ANPT	Aeronautical National Form Taper Pipe Thread (Ground thread tap marked NPT)	PG	Panzer Gewinde
BA	British Association Standard Thread	PTF	Dryseal SAE Short Taper Pipe Thread
BSF	British Standard Fine Thread Series	SGT	Special Gas Taper Thread
BSP	British Standard Pipe	SPL-PTF	Dryseal Special Taper Pipe Thread
BSPP	British Standard Pipe (Parallel) Thread	STI	Special Thread for Helical Coil Wire Screw Thread Inserts
BSPT	British Standard Taper Pipe Thread	Stub Acme	Stub Acme Thread
BSW	British Standard Whitworth Coarse Thread Series	*UN	Unified Constant Pitch Thread Series
M	Metric Screw Thread Series	*UNC	Unified Coarse Thread Series
N	American National 8, 12 and 16 Thread Series (8N, 12N, 16N)	*UNEF	Unified Extra Fine Thread Series
N BUTT	American Buttress Screw Thread	*UNF	Unified Fine Thread Series
NC	American National Coarse Thread Series	UNJ**	Unified Thread Series with a 0.15011P to 0.18042P Controlled Root Radius on External Thread only.
NEF	American National Extra Fine Thread Series	UNJC	Unified Coarse Thread Series with a 0.15011P to 0.18042P Controlled Root Radius on External Thread only.
NF	American National Fine Thread Series	UNJF	Unified Fine Thread Series with a 0.15011P to 0.18042P Controlled Root Radius on External Thread only.
NGO	National Gas Outlet Thread	UNM	Unified Miniature Thread Series
NGT	National Gas Taper Thread (see "SGT")	UNR	Unified Constant Pitch Thread Series with a 0.108P to 0.144P Controlled Root Radius; Ext. thread only.
NH	American National Hose Coupling and Fire Hose Coupling Threads	UNRC	Unified Coarse Thread Series with a 0.108P to 0.144P Controlled Root Radius; Ext. thread only.
NPS	For tap marking only (See NPSC, NPSM)	UNRF	Unified Fine Thread Series with a 0.108P to 0.144P Controlled Root Radius; External thread only.
NPSC	American National Standard Straight Pipe Thread in Pipe Couplings (Tap marked NPS)	*UNS	Unified Thread-Special
NPSF	Dryseal American National Standard Fuel Internal Straight Pipe Thread	V	A 60° "V" thread with Truncated Crest and Root. The theoretical "V" Form is usually flattened to the user's specifications.
NPSH	American National Standard Straight Pipe Thread for Hose Couplings	WHIT	British Standard Whitworth Special Thread
NPSI	Dryseal American National Standard Intermediate Internal Straight Pipe Thread		
NPSL	American National Standard Straight Pipe Thread for Loose Fitting Mechanical Joints with Locknuts		
NPSM	American National Standard Straight Pipe Threads for Free-Fitting Mechanical Joints for Fixtures (Tap marked NPS)		
NPT	American National Standard Taper Pipe Thread (See ANPT, NPTR)		

*Taps are not marked with "U" but with the symbol for the corresponding American Standard thread form with which it is compatible.
** See page 82 for additional information on UNJ taps.

