



HIGH PERFORMANCE TAPS RECOMMENDATION TABLE

Super HSS : Premium HSS Metallurgy
 P-HSS : Powdered Metallurgy
 HSSE-V3 : 3% Vanadium Alloy HSS-EX
 HSS-V : Vanadium Alloy HSS

⊙ = RECOMMENDED
 ○ = SUITABLE

COOLANT
 A = Cutting Oil
 T = Oil Emulsion
 X = Cutting Oil/Oil Emulsion

				GS		GS		GS		GS	
		SERIES		T7316/T6316/T8316 T7A16/T7B16		T7315/T6315/ T8315		T7326		T7B15	
		DESCRIPTION		USCTI 302		USCTI 302		USCTI Oversize		USCTI Oversize	
		PAGE		446		452		453		454	
		THREADS		UNC/UNF/UNS		M/MF		UNC/UNF		UNC/UNF	
		TAP MATERIALS		HSS		HSS		HSS		HSS	
		CHAMFER LENGTH		9P / 5P / 2P		9P / 5P / 2P		5P / 2P		5P / 2P	
		SURFACE TREATMENT		Bright Steam Oxide TiN		Bright Steam Oxide TiN		Bright		Bright	
		SPIRAL FLUTE ANGLE		-		-		-		-	
		THREAD DEPTH		2.0D		2.0D		2.0D		2.0D	
		HOLE TYPE		Blind Through		Blind Through		Blind Through		Blind Through	
Material Group	Material Sub-Group	ISO	Hardness (HRc)	Hardness (BHN)	Cutting Speed (SFM)		COOLANT				
					Uncoated	Coated					
Steel	Low carbon steels Free machining carbon steels	P	< 15	< 180	25 - 50	50 - 80	T	⊙	⊙	⊙	⊙
	Medium to high carbon steels Low alloyed steels	P	< 23	< 240	25 - 50	50 - 80	T	⊙	⊙	⊙	⊙
	Steel castings & forgings Heat-treatable alloy steels	P	> 24 ≤ 38	> 250 ≤ 350	6 - 30	10 - 35	X				
	Alloyed tool steels Mold steels	P	> 38 ≤ 44	> 350 ≤ 420	6 - 12	-	A				
Stainless Steel	Free machining stainless steels	M	< 23	< 240	12 - 35	20 - 50	A	⊙	⊙	⊙	⊙
	Heat and corrosion-resistant stainless steels Valve stainless steels	M	> 24 ≤ 38	> 250 ≤ 350	12 - 15	12 - 15	A				
	Stainless steel castings Precipitation hardening stainless steels	M	> 38 ≤ 44	> 350 ≤ 420	12 - 15	-	A				
Cast Iron	Grey cast iron	K	-	≤ 220	35 - 50	50 - 65	T				
	Nodular cast iron / Chilled cast iron Meehanite iron / Ductile iron	K	-	≥ 250	12 - 45	25 - 55	X				
Copper	Pure and alloyed copper	N	-	-	50 - 60	65 - 100	T	⊙	⊙	⊙	⊙
Brass	Free machining brass Alloyed brass	N	-	-	30 - 65	-	T	⊙	⊙	⊙	⊙
Bronze		N	44	< 420	12 - 20	35 - 80	T				
Aluminum	Pure Aluminum Aluminum alloys	N	-	-	50 - 65	-	T	⊙	⊙	⊙	⊙
	Aluminum alloy castings	N	-	-	40 - 65	45 - 90	T	⊙	⊙	⊙	⊙
Zinc		N	-	-	25 - 65	50 - 80	T	⊙	⊙	⊙	⊙
Magnesium		N	-	-	-	45 - 100	T	⊙	⊙	⊙	⊙
Nickel Alloys	718 & 625 INCO _n / Waspaloy Hastelloyn / Invar Monel _n / Incoloy	S	≤ 38	≤ 350	10 - 15	-	A				
	718 Inconel A286	S	> 38 ≤ 44	> 350 ≤ 420	10 - 12	-	A				
Titanium		S	≤ 38	≤ 350	3 - 15	-	A				



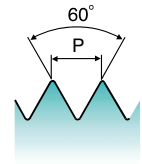
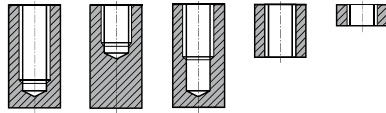
STRAIGHT FLUTE TAPS

T7316/T6316/T8316 SERIES

T7A16/T7B16 SERIES

HAND TAP TAPER, PLUG & BOTTOMING STYLE

Hole type 2.0xD



USCTI

GS
HSS
UNC UNF UNS
USCTI 302
H1~H7
60°
9P/5P/2P
Bright
Steam Oxide
TIN

SIZE	Thread Per Inch			Limit	No. of Flute	EDP No.							
	UNC	UNF	UNS			Bright			Steam Oxide			TIN	
						Taper	Plug	Bottoming	Taper	Plug	Bottoming	Plug	Bottoming
#0	—	80	—	H1	2	T7316026	T7316027	T7316028	T6316026	T6316027	T6316028	T8316027	T8316028
#0	—	80	—	H2	2	—	T7316027H2	T7316028H2	—	—	—	—	—
#1	64	—	—	H1	2	T7316046	T7316047	T7316048	T6316046	T6316047	T6316048	T8316047	T8316048
#1	64	—	—	H2	2	—	T7316047H2	T7316048H2	—	—	—	—	—
#1	—	72	—	H1	2	T7316066	T7316067	T7316068	T6316066	T6316067	T6316068	T8316067	T8316068
#1	—	72	—	H2	2	—	T7316067H2	T7316068H2	—	—	—	—	—
#2	56	—	—	H1	2	—	T7A16087H1	T7A16088H1	—	—	—	—	—
#2	56	—	—	H1	3	T7316086H1	T7316087H1	T7316088H1	—	—	—	—	—
#2	56	—	—	H2	2	—	T7A16087	T7A16088	—	—	—	—	—
#2	56	—	—	H2	3	T7316086	T7316087	T7316088	T6316086	T6316087	T6316088	T8316087	T8316088
#2	—	64	—	H2	3	T7316106	T7316107	T7316108	—	—	—	—	—
#3	48	—	—	H1	3	—	T7316127H1	—	—	—	—	—	—
#3	48	—	—	H2	2	—	T7A16127	T7A16128	—	—	—	—	—
#3	48	—	—	H2	3	T7316126	T7316127	T7316128	T6316126	T6316127	T6316128	—	—
#3	—	56	—	H2	3	T7316146	T7316147	T7316148	T6316146	T6316147	T6316148	—	—
#4	—	—	36	H2	3	T7316156	T7316157	T7316158	T6316156	T6316157	T6316158	—	—
#4	40	—	—	H1	2	—	T7A16167H1	T7A16168H1	—	—	—	—	—
#4	40	—	—	H1	3	T7316166H1	T7316167H1	T7316168H1	T6316166H1	T6316167H1	T6316168H1	—	—
#4	40	—	—	H2	2	—	T7A16167	T7A16168	—	—	—	—	—
#4	40	—	—	H2	3	T7316166	T7316167	T7316168	T6316166	T6316167	T6316168	T8316167	T8316168
#4	—	48	—	H1	3	—	T7316187H1	—	—	—	—	—	—
#4	—	48	—	H2	3	T7316186	T7316187	T7316188	—	—	—	—	—
#5	40	—	—	H1	3	—	T7316207H1	T7316208H1	—	—	—	—	—
#5	40	—	—	H2	2	—	T7A16207	T7A16208	—	—	—	—	—
#5	40	—	—	H2	3	T7316206	T7316207	T7316208	T6316206	T6316207	T6316208	T8316207	T8316208
#5	—	44	—	H2	3	T7316226	T7316227	T7316228	T6316226	T6316227	T6316228	—	—
#6	32	—	—	H1	2	—	T7A16247H1	T7A16248H1	—	—	—	—	—
#6	32	—	—	H1	3	T7316246H1	T7316247H1	T7316248H1	T6316246H1	T6316247H1	T6316248H1	—	—

▶ For tapping depth on ANSI Length Taps, refer to MCTI 302 on page 495.

▶ NEXT PAGE

◎ : Excellent ○ : Good

P				M						K	
Low carbon steels/ Free machining carbon steels	Medium to high carbon steels/ Low alloyed steels	Steel castings & forgings / Heat-treatable alloy steels	Alloyed tool steels / Mold steels	Free machining stainless steels	Heat and corrosion resistant stainless steels / Valve stainless steels		Stainless steel castings / Precipitation hardening stainless steels		Grey cast iron		
◎	◎			◎							
K		N					S				
Nodular cast iron / Chilled cast iron / Meehanite iron / Ductile iron	Pure and alloyed copper	Free machining brass / Alloyed brass	Bronze	Pure Aluminum/ Aluminum alloy	Aluminum alloy castings	Zinc	Magnesium	718 & 625 INCO / Waspaloy / Hastelloy / Invar / Monel / Incoloy	718 Inconel / A286	Titanium	
	◎	◎		◎	◎	◎	◎				

YAG STRAIGHT FLUTE TAPS

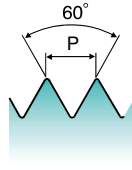
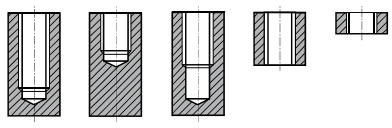
T7316/T6316/T8316 SERIES
T7A16/T7B16 SERIES

HSS

CARBIDE

HAND TAP TAPER, PLUG & BOTTOMING STYLE

Hole type 2.0xD



USCTI

GS
HSS
UNC UNF UNS
USCTI 302
H1~H7
60°
9P/5P/2P
Bright
Steam Oxide
TiN

SIZE	Thread Per Inch			Limit	No. of Flute	EDP No.							
	UNC	UNF	UNS			Bright			Steam Oxide			TiN	
						Taper	Plug	Bottoming	Taper	Plug	Bottoming	Plug	Bottoming
#6	32	—	—	H2	2	—	T7A16247H2	T7A16248H2	—	—	—	—	—
#6	32	—	—	H2	3	T7316246H2	T7316247H2	T7316248H2	T6316246H2	T6316247H2	T6316248H2	—	—
#6	32	—	—	H3	2	—	T7A16247	T7A16248	—	—	—	—	—
#6	32	—	—	H3	3	T7316246	T7316247	T7316248	T6316246	T6316247	T6316248	T8316247	T8316248
#6	32	—	—	H7	3	—	T7B16247H7	T7B16248H7	—	—	—	—	—
#6	—	40	—	H1	3	—	T7B16267H1	—	—	—	—	—	—
#6	—	40	—	H2	2	—	T7A16267	T7A16268	—	—	—	—	—
#6	—	40	—	H2	3	T7316266	T7316267	T7316268	T6316266	T6316267	T6316268	T8316267	T8316268
#8	32	—	—	H1	2	—	T7A16287H1	—	—	—	—	—	—
#8	32	—	—	H1	4	T7316286H1	T7316287H1	T7316288H1	T6316286H1	T6316287H1	T6316288H1	—	—
#8	32	—	—	H2	2	—	T7A16287H2	T7A16288H2	—	—	—	—	—
#8	32	—	—	H2	3	—	T7B16287H2	T7B16288H2	—	—	—	—	—
#8	32	—	—	H2	4	T7316286H2	T7316287H2	T7316288H2	T6316286H2	T6316287H2	T6316288H2	—	—
#8	32	—	—	H3	2	—	T7A16287	T7A16288	—	—	—	—	—
#8	32	—	—	H3	3	—	T7B16287	T7B16288	—	—	—	—	—
#8	32	—	—	H3	4	T7316286	T7316287	T7316288	T6316286	T6316287	T6316288	T8316287	T8316288
#8	32	—	—	H7	3	—	T7B16287H7	T7B16288H7	—	—	—	—	—
#8	32	—	—	H7	4	—	T7316287H7	T7316288H7	—	—	—	—	—
#8	—	36	—	H2	4	T7316306	T7316307	T7316308	T6316306	T6316307	T6316308	T8316307	T8316308
#10	24	—	—	H1	4	T7316326H1	T7316327H1	T7316328H1	T6316326H1	T6316327H1	T6316328H1	—	—
#10	24	—	—	H2	2	—	T7A16327H2	T7A16328H2	—	—	—	—	—
#10	24	—	—	H2	3	—	T7B16327H2	—	—	—	—	—	—
#10	24	—	—	H2	4	T7316326H2	T7316327H2	T7316328H2	T6316326H2	T6316327H2	T6316328H2	—	—
#10	24	—	—	H3	2	—	T7A16327	T7A16328	—	—	—	—	—
#10	24	—	—	H3	3	—	T7B16327	T7B16328	—	—	—	—	—
#10	24	—	—	H3	4	T7316326	T7316327	T7316328	T6316326	T6316327	T6316328	T8316327	T8316328
#10	24	—	—	H7	3	—	T7B16327H7	T7B16328H7	—	—	—	—	—
#10	24	—	—	H7	4	—	T7316327H7	T7316328H7	—	—	—	—	—

► For tapping depth on ANSI Length Taps, refer to MCTI 302 on page 495.

► NEXT PAGE

○ : Excellent K : Good

P				M									
Low carbon steels / Free machining carbon steels	Medium to high carbon steels / Low alloyed steels	Steel castings & forgings / Heat-treatable alloy steels	Alloyed tool steels / Mold steels	Free machining stainless steels	Heat-and corrosionresistant stainless steels / Valve stainless steels	Stainless steel castings / Precipitation hardening stainless steels	Grey cast iron						
○	○			○									
K		N					S						
Nodular cast iron / Chilled cast iron / Meehanite iron / Ductile iron	Pure and alloyed copper	Free machining brass / Alloyed brass	Bronze	Pure Aluminum / Aluminum alloy	Aluminum alloy castings	Zinc	Magnesium	718 & 625 INCO / Waspaloy / Hastelloy / Invar / Monel / Incoloy	718 Inconel / A286	Titanium			
	○	○		○	○	○	○						

HSS

CARBIDE



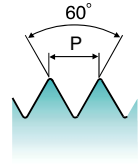
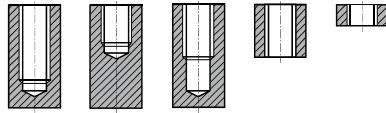
STRAIGHT FLUTE TAPS

T7316/T6316/T8316 SERIES

T7A16/T7B16 SERIES

**HAND TAP
TAPER, PLUG & BOTTOMING STYLE**

Hole type 2.0xD



USCTI

GS
HSS
UNC UNF UNS
USCTI 302
H1~H7
60°
9P/5P/2P
Bright
Steam Oxide
TIN

SIZE	Thread Per Inch			Limit	No. of Flute	EDP No.							
	UNC	UNF	UNS			Bright			Steam Oxide			TIN	
						Taper	Plug	Bottoming	Taper	Plug	Bottoming	Plug	Bottoming
#10	—	32	—	H1	2	—	T7A16347H1	T7A16348H1	—	—	—	—	—
#10	—	32	—	H1	4	T7316346H1	T7316347H1	T7316348H1	T6316346H1	T6316347H1	T6316348H1	—	—
#10	—	32	—	H2	2	—	T7A16347H2	T7A16348H2	—	—	—	—	—
#10	—	32	—	H2	3	—	T7B16347H2	T7B16348H2	—	—	—	—	—
#10	—	32	—	H2	4	T7316346H2	T7316347H2	T7316348H2	T6316346H2	T6316347H2	T6316348H2	—	—
#10	—	32	—	H3	2	—	T7A16347	T7A16348	—	—	—	—	—
#10	—	32	—	H3	3	—	T7B16347	T7B16348	—	—	—	—	—
#10	—	32	—	H3	4	T7316346	T7316347	T7316348	T6316346	T6316347	T6316348	T8316347	T8316348
#10	—	32	—	H7	3	—	T7B16347H7	T7B16348H7	—	—	—	—	—
#10	—	32	—	H7	4	—	T7316347H7	T7316348H7	—	—	—	—	—
#12	24	—	—	H3	4	T7316366	T7316367	T7316368	T6316366	T6316367	T6316368	T8316367	T8316368
#12	—	28	—	H1	4	—	T7316387H1	—	—	—	—	—	—
#12	—	28	—	H3	4	T7316386	T7316387	T7316388	T6316386	T6316387	T6316388	T8316387	T8316388
1/4	20	—	—	H1	3	—	T7B16407H1	—	—	—	—	—	—
1/4	20	—	—	H1	4	T7316406H1	T7316407H1	T7316408H1	—	—	—	—	—
1/4	20	—	—	H2	3	—	T7B16407H2	T7B16408H2	—	—	—	—	—
1/4	20	—	—	H2	4	T7316406H2	T7316407H2	T7316408H2	—	—	—	—	—
1/4	20	—	—	H3	2	—	T7A16407	T7A16408	—	—	—	—	—
1/4	20	—	—	H3	3	—	T7B16407	T7B16408	—	—	—	—	—
1/4	20	—	—	H3	4	T7316406	T7316407	T7316408	T6316406	T6316407	T6316408	T8316407	T8316408
1/4	20	—	—	H5	3	—	T7B16407H5	T7B16408H5	—	—	—	—	—
1/4	20	—	—	H5	4	—	T7316407H5	T7316408H5	—	—	—	—	—
1/4	—	28	—	H1	4	—	T7316427H1	T7316428H1	—	—	—	—	—
1/4	—	28	—	H2	4	—	T7316427H2	T7316428H2	—	—	—	—	—
1/4	—	28	—	H3	2	—	T7A16427	T7A16428	—	—	—	—	—
1/4	—	28	—	H3	3	—	T7B16427	T7B16428	—	—	—	—	—
1/4	—	28	—	H3	4	T7316426	T7316427	T7316428	T6316426	T6316427	T6316428	T8316427	T8316428
1/4	—	28	—	H4	4	—	T7316427H4	T7316428H4	—	—	—	—	—

► For tapping depth on ANSI Length Taps, refer to MCT1 302 on page 495.

► NEXT PAGE

○ : Excellent ○ : Good

P				M						K			
Low carbon steels / Free machining carbon steels	Medium to high carbon steels / Low alloyed steels	Steel castings & forgings / Heat-treatable alloy steels	Alloyed tool steels / Mold steels	Free machining stainless steels	Heat and corrosion resistant stainless steels / Valve stainless steels	Stainless steel castings / Precipitation hardening stainless steels	Grey cast iron						
○	○			○									
K		N						S					
Nodular cast iron / Chilled cast iron / Meehanite iron / Ductile iron	Pure and alloyed copper	Free machining brass / Alloyed brass	Bronze	Pure Aluminum / Aluminum alloy	Aluminum alloy castings	Zinc	Magnesium	718 & 625 INCO / Waspaloy / Hastelloy / Invar / Monel / Incoloy	718 Inconel / A286	Titanium			
	○	○		○	○	○	○						

YG STRAIGHT FLUTE TAPS

T7316/T6316/T8316 SERIES
T7A16/T7B16 SERIES

HSS

CARBIDE

THREAD MILLS

COMBO TAPS

SPIRAL FLUTE TAPS

SPIRAL POINT TAPS

STRAIGHT FLUTE TAPS

FORMING TAPS

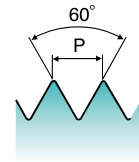
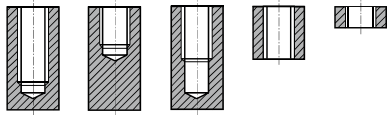
SCREW THREAD INSERT TAPS

PIPE TAPS

TECHNICAL DATA

HAND TAP TAPER, PLUG & BOTTOMING STYLE

Hole type 2.0xD



USCTI

GS
HSS
UNC UNF UNS
USCTI 302
H1~H7
60°
9P/5P/2P
Bright
Steam Oxide
TiN

SIZE	Thread Per Inch			Limit	No. of Flute	EDP No.							
	UNC	UNF	UNS			Bright			Steam Oxide			TiN	
						Taper	Plug	Bottoming	Taper	Plug	Bottoming	Plug	Bottoming
5/16	18	—	—	H1	4	—	T7316447H1	T7316448H1	—	—	—	—	—
5/16	18	—	—	H2	4	T7316446H2	T7316447H2	T7316448H2	T6316446H2	T6316447H2	T6316448H2	—	—
5/16	18	—	—	H3	2	—	T7A16447	T7A16448	—	—	—	—	—
5/16	18	—	—	H3	3	—	T7B16447	T7B16448	—	—	—	—	—
5/16	18	—	—	H3	4	T7316446	T7316447	T7316448	T6316446	T6316447	T6316448	T8316447	T8316448
5/16	18	—	—	H5	3	—	T7B16447H5	T7B16448H5	—	—	—	—	—
5/16	18	—	—	H5	4	—	T7316447H5	T7316448H5	—	—	—	—	—
5/16	—	24	—	H1	4	—	T7316467H1	T7316468H1	—	—	—	—	—
5/16	—	24	—	H2	4	—	T7316467H2	T7316468H2	—	—	—	—	—
5/16	—	24	—	H3	3	—	T7B16467	T7B16468	—	—	—	—	—
5/16	—	24	—	H3	4	T7316466	T7316467	T7316468	T6316466	T6316467	T6316468	T8316467	T8316468
5/16	—	24	—	H4	4	—	T7316467H4	T7316468H4	—	—	—	—	—
3/8	16	—	—	H1	3	—	T7B16487H1	T7B16488H1	—	—	—	—	—
3/8	16	—	—	H1	4	—	T7316487H1	T7316488H1	—	—	—	—	—
3/8	16	—	—	H2	4	—	T7316487H2	T7316488H2	—	—	—	—	—
3/8	16	—	—	H3	3	—	T7B16487	T7B16488	—	—	—	—	—
3/8	16	—	—	H3	4	T7316486	T7316487	T7316488	T6316486	T6316487	T6316488	T8316487	T8316488
3/8	16	—	—	H5	3	—	T7B16487H5	T7B16488H5	—	—	—	—	—
3/8	16	—	—	H5	4	—	T7316487H5	T7316488H5	—	—	—	—	—
3/8	—	24	—	H1	4	—	T7316507H1	T7316508H1	—	—	—	—	—
3/8	—	24	—	H2	4	—	T7316507H2	T7316508H2	—	—	—	—	—
3/8	—	24	—	H3	3	—	T7B16507	T7B16508	—	—	—	—	—
3/8	—	24	—	H3	4	T7316506	T7316507	T7316508	T6316506	T6316507	T6316508	T8316507	T8316508
3/8	—	24	—	H4	4	—	T7316507H4	T7316508H4	—	—	—	—	—
7/16	14	—	—	H2	4	—	T7316527H2	—	—	—	—	—	—
7/16	14	—	—	H3	3	—	T7B16527	T7B16528	—	—	—	—	—
7/16	14	—	—	H3	4	T7316526	T7316527	T7316528	T6316526	T6316527	T6316528	T8316527	T8316528
7/16	14	—	—	H5	4	—	T7316527H5	T7316528H5	—	—	—	—	—

► For tapping depth on ANSI Length Taps, refer to MCTI 302 on page 495.

► NEXT PAGE

○ : Excellent ○ : Good

P				M				K		K	
Low carbon steels/ Free machining carbon steels	Medium to high carbon steels/ Low alloyed steels	Steel castings & forgings / Heat-treatable alloy steels	Alloyed tool steels / Mold steels	Free machining stainless steels	Heat-and corrosionresistant stainless steels / Valve stainless steels	Stainless steel castings / Precipitation hardening stainless steels	Grey cast iron				
○	○			○							
K		N				S					
Nodular cast iron / Chilled cast iron / Meehanite iron / Ductile iron	Pure and alloyed copper	Free machining brass / Alloyed brass	Bronze	Pure Aluminum/ Aluminum alloy	Aluminum alloy castings	Zinc	Magnesium	718 & 625 INCO / Waspaloy / Hastelloy / Invar / Monel / Incoloy	718 Inconel / A286	Titanium	
	○	○		○	○	○	○				



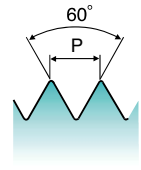
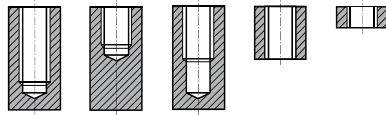
STRAIGHT FLUTE TAPS

T7316/T6316/T8316 SERIES

T7A16/T7B16 SERIES

**HAND TAP
TAPER, PLUG & BOTTOMING STYLE**

Hole type 2.0xD



USCTI

GS
HSS
UNC UNF UNS
USCTI 302
H1~H7
60°
9P/5P/2P
Bright
Steam Oxide
TIN

SIZE	Thread Per Inch			Limit	No. of Flute	EDP No.							
	UNC	UNF	UNS			Bright			Steam Oxide			TIN	
						Taper	Plug	Bottoming	Taper	Plug	Bottoming	Plug	Bottoming
7/16	—	20	—	H2	4	—	T7316547H2	—	—	—	—	—	—
7/16	—	20	—	H3	3	—	T7B16547	T7B16548	—	—	—	—	—
7/16	—	20	—	H3	4	T7316546	T7316547	T7316548	T6316546	T6316547	T6316548	T8316547	T8316548
7/16	—	20	—	H5	4	—	T7316547H5	T7316548H5	—	—	—	—	—
1/2	13	—	—	H1	4	—	T7316567H1	T7316568H1	—	—	—	—	—
1/2	13	—	—	H2	4	—	T7316567H2	T7316568H2	—	—	—	—	—
1/2	13	—	—	H3	3	—	T7B16567	T7B16568	—	—	—	—	—
1/2	13	—	—	H3	4	T7316566	T7316567	T7316568	T6316566	T6316567	T6316568	T8316567	T8316568
1/2	13	—	—	H5	4	—	T7316567H5	T7316568H5	—	—	—	—	—
1/2	—	20	—	H1	4	—	T7316587H1	T7316588H1	—	—	—	—	—
1/2	—	20	—	H3	3	—	T7B16587	T7B16588	—	—	—	—	—
1/2	—	20	—	H3	4	T7316586	T7316587	T7316588	T6316586	T6316587	T6316588	T8316587	T8316588
1/2	—	20	—	H5	4	—	T7316587H5	T7316588H5	—	—	—	—	—
9/16	12	—	—	H3	4	T7316606	T7316607	T7316608	T6316606	T6316607	T6316608	T8316607	T8316608
9/16	12	—	—	H5	4	—	T7316607H5	T7316608H5	—	—	—	—	—
9/16	—	18	—	H2	4	—	T7316627H2	—	—	—	—	—	—
9/16	—	18	—	H3	4	T7316626	T7316627	T7316628	T6316626	T6316627	T6316628	T8316627	T8316628
9/16	—	18	—	H5	4	—	T7316627H5	T7316628H5	—	—	—	—	—
5/8	11	—	—	H1	4	—	T7316647H1	—	—	—	—	—	—
5/8	11	—	—	H2	4	—	T7316647H2	T7316648H2	—	—	—	—	—
5/8	11	—	—	H3	4	T7316646	T7316647	T7316648	T6316646	T6316647	T6316648	T8316647	T8316648
5/8	11	—	—	H5	4	—	T7316647H5	T7316648H5	—	—	—	—	—
5/8	—	18	—	H1	4	—	T7316667H1	—	—	—	—	—	—
5/8	—	18	—	H2	4	—	T7316667H2	—	—	—	—	—	—
5/8	—	18	—	H3	4	T7316666	T7316667	T7316668	T6316666	T6316667	T6316668	T8316667	T8316668
5/8	—	18	—	H5	4	—	T7316667H5	T7316668H5	—	—	—	—	—
11/16	—	—	11	H3	4	T7316A06	T7316A07	T7316A08	T6316A06	T6316A07	T6316A08	—	—
11/16	—	—	16	H3	4	T7316A26	T7316A27	T7316A28	T6316A26	T6316A27	T6316A28	—	—

► For tapping depth on ANSI Length Taps, refer to MCTI 302 on page 495.

► NEXT PAGE

○ : Excellent ○ : Good

P				M						K	
Low carbon steels/ Free machining carbon steels	Medium to high carbon steels/ Low alloyed steels	Steel castings & forgings / Heat-treatable alloy steels	Alloyed tool steels / Mold steels	Free machining stainless steels	Heat and corrosion resistant stainless steels / Valve stainless steels		Stainless steel castings / Precipitation hardening stainless steels		Grey cast iron		
○	○			○							
K		N					S				
Nodular cast iron / Chilled cast iron / Meehanite iron / Ductile iron	Pure and alloyed copper	Free machining brass / Alloyed brass	Bronze	Pure Aluminum/ Aluminum alloy	Aluminum alloy castings	Zinc	Magnesium	718 & 625 INCO / Waspaloy / Hastelloy / Invar / Monel / Incoloy	718 Inconel / A286	Titanium	
	○	○		○	○	○	○				

YG STRAIGHT FLUTE TAPS

T7316/T6316/T8316 SERIES
T7A16/T7B16 SERIES

HSS

CARBIDE

THREAD MILLS

COMBO TAPS

SPIRAL FLUTE TAPS

SPIRAL POINT TAPS

STRAIGHT FLUTE TAPS

FORMING TAPS

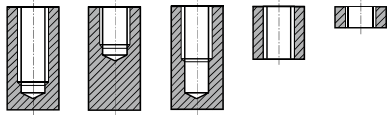
SCREW THREAD INSERT TAPS

PIPE TAPS

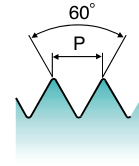
TECHNICAL DATA

HAND TAP TAPER, PLUG & BOTTOMING STYLE

Hole type 2.0xD



USCTI



GS
HSS
UNC UNF UNS
USCTI 302
H1~H7
60°
9P/5P/2P
Bright
Steam Oxide
TiN

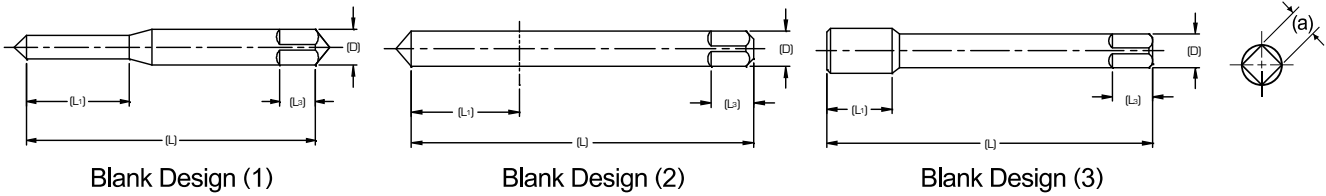
SIZE	Thread Per Inch			Limit	No. of Flute	EDP No.							
	UNC	UNF	UNS			Bright			Steam Oxide			TiN	
						Taper	Plug	Bottoming	Taper	Plug	Bottoming	Plug	Bottoming
3/4	10	—	—	H1	4	—	T7316707H1	T7316708H1	—	—	—	—	—
3/4	10	—	—	H2	4	—	T7316707H2	—	—	—	—	—	—
3/4	10	—	—	H3	4	T7316706	T7316707	T7316708	T6316706	T6316707	T6316708	T8316707	T8316708
3/4	10	—	—	H5	4	—	T7316707H5	T7316708H5	—	—	—	—	—
3/4	—	16	—	H1	4	—	T7316727H1	—	—	—	—	—	—
3/4	—	16	—	H2	4	—	T7316727H2	—	—	—	—	—	—
3/4	—	16	—	H3	4	T7316726	T7316727	T7316728	T6316726	T6316727	T6316728	T8316727	T8316728
3/4	—	16	—	H5	4	—	T7316727H5	T7316728H5	—	—	—	—	—
7/8	9	—	—	H4	4	T7316746	T7316747	T7316748	T6316746	T6316747	T6316748	T8316747	T8316748
7/8	9	—	—	H6	4	—	T7316747H6	—	—	—	—	—	—
7/8	—	14	—	H2	4	—	T7316767H2	—	—	—	—	—	—
7/8	—	14	—	H4	4	T7316766	T7316767	T7316768	T6316766	T6316767	T6316768	T8316767	T8316768
7/8	—	14	—	H6	4	—	T7316767H6	—	—	—	—	—	—
1	8	—	—	H1	4	—	T7316787H1	T7316788H1	—	—	—	—	—
1	8	—	—	H2	4	—	T7316787H2	—	—	—	—	—	—
1	8	—	—	H4	4	T7316786	T7316787	T7316788	T6316786	T6316787	T6316788	T8316787	T8316788
1	8	—	—	H6	4	—	T7316787H6	—	—	—	—	—	—
1	—	12	—	H4	4	T7316806	T7316807	T7316808	T6316806	T6316807	T6316808	T8316807	T8316808
1	—	—	14	H2	4	—	T7316817H2	—	—	—	—	—	—
1	—	—	14	H4	4	T7316816	T7316817	T7316818	—	—	—	T8316817	T8316818
1-1/8	7	—	—	H4	4	T7316826	T7316827	T7316828	—	—	—	T8316827	T8316828
1-1/8	—	12	—	H4	4	T7316846	T7316847	T7316848	—	—	—	T8316847	T8316848
1-1/4	7	—	—	H4	4	T7316866	T7316867	T7316868	—	—	—	T8316867	T8316868
1-1/4	—	12	—	H4	6	T7316886	T7316887	T7316888	—	—	—	T8316887	T8316888
1-3/8	6	—	—	H4	4	T7316906	T7316907	T7316908	—	—	—	T8316907	T8316908
1-3/8	—	12	—	H4	6	T7316926	T7316927	T7316928	—	—	—	T8316927	T8316928
1-1/2	6	—	—	H4	4	T7316946	T7316947	T7316948	—	—	—	T8316947	T8316948
1-1/2	—	12	—	H4	6	T7316966	T7316967	T7316968	—	—	—	T8316967	T8316968

► For tapping depth on ANSI Length Taps, refer to MCTI 302 on page 495.

◎ : Excellent ○ : Good

P				M				K		
Low carbon steels/ Free machining carbon steels	Medium to high carbon steels/ Low alloyed steels	Steel castings & forgings / Heat-treatable alloy steels	Alloyed tool steels / Mold steels	Free machining stainless steels	Heat-and corrosionresistant stainless steels / Valve stainless steels	Stainless steel castings / Precipitation hardening stainless steels	Grey cast iron			
◎	◎			◎						
K		N				S				
Nodular cast iron / Chilled cast iron / Meehanite iron / Ductile iron	Pure and alloyed copper	Free machining brass / Alloyed brass	Bronze	Pure Aluminum/ Aluminum alloy	Aluminum alloy castings	Zinc	Magnesium	718 & 625 INCO / Waspalloy / Hastelloy / Invar / Monel / Incoloy	718 Inconel / A286	Titanium
	◎	◎		◎	◎	◎	◎			

6 YG-1 USCTI 302 TAP BLANK DIMENSION



Unified Tap Blank

Nominal Size	Overall Length	Thread Length	Shank Diameter	Square Length	Square Size	Blank Design No.
	(L)	(L ₁)	(D)	(L ₂)	(a)	
#0	1.63	.31	.141	.19	.110	1
#1	1.69	.38	.141	.19	.110	1
#2	1.75	.44	.141	.19	.110	1
#3	1.81	.50	.141	.19	.110	1
#4	1.88	.56	.141	.19	.110	1
#5	1.94	.63	.141	.19	.110	1
#6	2.00	.69	.141	.19	.110	1
#8	2.13	.75	.168	.25	.131	1
#10	2.38	.88	.194	.25	.152	1
#12	2.38	.94	.220	.28	.165	1
1/4	2.50	1.00	.255	.31	.191	2
5/16	2.72	1.13	.318	.38	.238	2
3/8	2.94	1.25	.381	.44	.286	2
7/16	3.16	1.44	.323	.41	.242	3
1/2	3.38	1.66	.367	.44	.275	3
9/16	3.59	1.66	.429	.50	.322	3
5/8	3.81	1.81	.480	.56	.360	3
11/16	4.03	1.81	.542	.63	.406	3
3/4	4.25	2.00	.590	.69	.442	3
13/16	4.47	2.00	.652	.69	.489	3
7/8	4.69	2.22	.697	.75	.523	3
15/16	4.91	2.22	.760	.75	.570	3
1	5.13	2.50	.800	.81	.600	3
1-1/8	5.44	2.56	.896	.88	.672	3
1-1/4	5.75	2.56	1.021	1.00	.766	3
1-3/8	6.06	3.00	1.108	1.06	.831	3
1-1/2	6.38	3.00	1.233	1.13	.925	3

Metric Tap Blank

Nominal Size	Overall Length	Thread Length	Shank Diameter	Square Length	Square Size	Blank Design No.
	(L)	(L ₁)	(D)	(L ₂)	(a)	
M1.6	1.63	.310	.141	.19	.110	1
M1.8	1.69	.380	.141	.19	.110	1
M2	1.75	.440	.141	.19	.110	1
M2.5	1.81	.500	.141	.19	.110	1
M3	1.94	.630	.141	.19	.110	1
M3.5	2.00	.690	.141	.19	.110	1
M4	2.13	.750	.168	.25	.131	1
M4.5	2.38	.880	.194	.25	.152	1
M5	2.38	.880	.194	.25	.152	1
M6	2.50	1.00	.255	.31	.191	2
M7	2.72	1.13	.318	.38	.238	2
M8	2.72	1.13	.318	.38	.238	2
M10	2.94	1.25	.381	.44	.286	2
M12	3.38	1.66	.367	.44	.275	3
M14	3.59	1.66	.429	.50	.322	3
M16	3.81	1.81	.480	.56	.360	3
M18	4.03	1.81	.542	.63	.406	3
M20	4.47	2.00	.652	.69	.489	3
M22	4.69	2.22	.697	.75	.523	3
M24	4.91	2.22	.760	.75	.570	3
M30	5.44	2.56	1.021	1.00	.766	3
M33	5.75	2.56	1.108	1.06	.831	3
M36	6.06	3.00	1.233	1.13	.925	3



TAP RECOMMENDATIONS FOR CLASSES OF THREAD - INCH

Internal Screw Thread Classes and Tap Recommendations

Size	Threads per Inch		Recommended Tap for Class of Thread				Pitch Diameter Limits for Class of Thread				
	UNC	UNF	Unified Class of Thread		American National Class of Thread		Min. All Class (Basic)	Unified Class of Thread		American National Class of Thread	
			Class 2	Class 3	Class 2B	Class 3B		Max. Class 2	Max. Class 3	Max. Class 2B	Max. Class 3B
#0	-	80	GH1	GH1	GH2	GH1	.0519	.0536	.0532	.0542	.0536
#1	64	-	GH1	GH1	GH2	GH1	.0629	.0648	.0643	.0655	.0648
#1	-	72	GH1	GH1	GH2	GH1	.0640	.0658	.0653	.0665	.0659
#2	56	-	GH1	GH1	GH2	GH1	.0744	.0764	.0759	.0772	.0765
#2	-	64	GH1	GH1	GH2	GH1	.0759	.0778	.0773	.0786	.0779
#3	48	-	GH1	GH1	GH2	GH1	.0855	.0877	.0871	.0885	.0877
#3	-	56	GH1	GH1	GH2	GH1	.0874	.0894	.8890	.0902	.0895
#4	40	-	GH2	GH1	GH2	GH2	.0958	.0982	.0975	.0991	.0982
#4	-	48	GH1	GH1	GH2	GH1	.0985	.1007	.1001	.1016	.1008
#5	40	-	GH2	GH1	GH2	GH2	.1088	.1112	.1105	.1121	.1113
#5	-	44	GH1	GH1	GH2	GH1	.1102	.1125	.1118	.1134	.1126
#6	32	-	GH2	GH1	GH3	GH2	.1177	.1204	.1196	.1214	.1204
#6	-	40	GH2	GH1	GH2	GH2	.1218	.1242	.1235	.1252	.1243
#8	32	-	GH2	GH1	GH3	GH2	.1437	.1464	.1456	.1475	.1465
#8	-	36	GH2	GH1	GH2	GH2	.1460	.1485	.1478	.1496	.1487
#10	24	-	GH3	GH1	GH3	GH3	.1629	.1662	.1653	.1672	.1661
#10	-	32	GH2	GH1	GH3	GH2	.1697	.1724	.1716	.1736	.1726
#12	24	-	GH3	GH1	GH3	GH3	.1889	.1922	.1913	.1933	.1922
#12	-	28	GH3	GH1	GH3	GH3	.1928	.1959	.1950	.1970	.1959
1/4	20	-	GH3	GH2	GH5	GH3	.2175	.2211	.2201	.2223	.2211
1/4	-	28	GH3	GH1	GH4	GH3	.2268	.2299	.2290	.2311	.2300
5/16	18	-	GH3	GH2	GH5	GH3	.2764	.2805	.2794	.2817	.2803
5/16	-	24	GH3	GH1	GH4	GH3	.2854	.2887	.2878	.2902	.2890
3/8	16	-	GH3	GH2	GH5	GH3	.3344	.3389	.3376	.3401	.3387
3/8	-	24	GH3	GH1	GH4	GH3	.3479	.3512	.3503	.3528	.3516
7/16	14	-	GH5	GH3	GH5	GH3	.3911	.3960	.3947	.3972	.3957
7/16	-	20	GH3	GH1	GH5	GH3	.4050	.4086	.4076	.4104	.4091
1/2	13	-	GH5	GH3	GH5	GH3	.4500	.4552	.4537	.4565	.4548
1/2	-	20	GH3	GH1	GH5	GH3	.4675	.4711	.4701	.4731	.4717
9/16	12	-	GH5	GH3	GH5	GH3	.5084	.5140	.5124	.5152	.5135
9/16	-	18	GH3	GH2	GH5	GH3	.5264	.5305	.5294	.5323	.5308
5/8	11	-	GH5	GH3	GH5	GH3	.5660	.5719	.5702	.5732	.5714
5/8	-	18	GH3	GH2	GH5	GH3	.5889	.5930	.5919	.5949	.5934
3/4	10	-	GH5	GH3	GH5	GH3	.6850	.6914	.6895	.6927	.6907
3/4	-	16	GH3	GH2	GH5	GH3	.7094	.7139	.7126	.7159	.7143
7/8	9	-	GH6	GH4	GH6	GH4	.8028	.8098	.8077	.8110	.8089
7/8	-	14	GH4	GH2	GH6	GH4	.8286	.8335	.8322	.8356	.8339
1	8	-	GH6	GH4	GH6	GH4	.9188	.9264	.9242	.9276	.9254
1	-	12	GH4	GH2	GH6	GH4	.9459	.9515	.9499	.9535	.9516

The above recommended taps normally produce the Class of Thread indicated in average materials when used with reasonable care. However, if the tap specified does not give a satisfactory gage fit in the work, a choice of some other limit tap will be necessary.

15 TAP DRILL SIZES - UNIFIED THREAD

Size	Threads Per Inch				Minor Diameter			Tap Drill Diameter (Cutting Tap)				
	UNC	UNF	UNEF	UN	Min. 2B&3B	Max. 2B	Max. 3B	80% Thread	75% Thread	70% Thread	65% Thread	60% Thread
#0	-	80	-	-	.0465	.0514	.0514	.0470	.0478	.0486	.0494	.0503
#1	64	-	-	-	.0561	.0623	.0623	.0568	.0578	.0588	.0598	.0608
	-	72	-	-	.0580	.0635	.0635	.0586	.0595	.0604	.0613	.0622
#2	56	-	-	-	.0667	.0737	.0737	.0674	.0686	.0698	.0709	.0721
	-	64	-	-	.0691	.0753	.0753	.0698	.0708	.0718	.0728	.0738
#3	48	-	-	-	.0764	.0845	.0845	.0774	.0787	.0801	.0814	.0828
	-	56	-	-	.0797	.0865	.0865	.0804	.0816	.0828	.0839	.0851
#4	40	-	-	-	.0849	.0939	.0939	.0860	.0876	.0893	.0909	.0925
	-	48	-	-	.0894	.0968	.0968	.0904	.0917	.0931	.0944	.0958
#5	40	-	-	-	.0979	.1062	.1062	.0990	.1006	.1023	.1039	.1055
	-	44	-	-	.1004	.1079	.1079	.1014	.1029	.1043	.1058	.1073
#6	32	-	-	-	.1040	.1140	.1140	.1055	.1076	.1096	.1116	.1136
	-	40	-	-	.1110	.1190	.1186	.1120	.1136	.1153	.1169	.1185
#8	32	-	-	-	.1300	.1390	.1389	.1315	.1336	.1356	.1376	.1396
	-	36	-	-	.1340	.1420	.1416	.1351	.1369	.1387	.1405	.1424
#10	24	-	-	-	.1450	.1560	.1555	.1467	.1494	.1521	.1548	.1575
	-	32	-	-	.1560	.1640	.1641	.1575	.1596	.1616	.1636	.1656
#12	24	-	-	-	.1710	.1810	.1807	.1727	.1754	.1781	.1808	.1835
	-	28	-	-	.1770	.1860	.1857	.1789	.1812	.1835	.1858	.1882
1/4	20	-	-	-	.1960	.2070	.2067	.1980	.2013	.2045	.2078	.2110
	-	28	-	-	.2110	.2200	.2190	.2129	.2152	.2175	.2198	.2222
	-	-	32	-	.2160	.2240	.2229	.2175	.2196	.2216	.2236	.2256
5/16	18	-	-	-	.2520	.2650	.2630	.2548	.2584	.2620	.2656	.2692
	-	-	-	20	.2580	.2700	.2680	.2605	.2638	.2670	.2703	.2735
	-	24	-	-	.2670	.2770	.2754	.2692	.2719	.2746	.2773	.2800
	-	-	-	28	.2740	.2820	.2807	.2754	.2777	.2800	.2823	.2847
	-	-	32	-	.2790	.2860	.2847	.2800	.2821	.2841	.2861	.2881
3/8	16	-	-	-	.3070	.3210	.3182	.3101	.3141	.3182	.3222	.3263
	-	-	-	20	.3210	.3320	.3297	.3230	.3263	.3295	.3328	.3360
	-	24	-	-	.3300	.3400	.3372	.3317	.3344	.3371	.3398	.3425
	-	-	-	28	.3360	.3450	.3426	.3379	.3402	.3425	.3448	.3472
	-	-	32	-	.3410	.3490	.3469	.3425	.3446	.3466	.3486	.3506
7/16	14	-	-	-	.3600	.3760	.3717	.3633	.3679	.3726	.3772	.3818
	-	-	-	16	.3700	.3840	.3800	.3726	.3766	.3807	.3847	.3888
	-	20	-	-	.3830	.3950	.3916	.3855	.3888	.3920	.3953	.3985
	-	-	28	-	.3990	.4070	.4051	.4004	.4027	.4050	.4073	.4097
	-	-	-	32	.4040	.4110	.4094	.4050	.4071	.4091	.4111	.4131
1/2	13	-	-	-	.4170	.4340	.4284	.4201	.4251	.4301	.4351	.4400
	-	-	-	16	.4320	.4460	.4419	.4351	.4391	.4432	.4472	.4513
	-	20	-	-	.4460	.4570	.4537	.4480	.4513	.4545	.4578	.4610
	-	-	28	-	.4610	.4700	.4676	.4629	.4652	.4675	.4698	.4722
	-	-	-	32	.4660	.4740	.4719	.4675	.4696	.4716	.4736	.4756
9/16	12	-	-	-	.4720	.4900	.4843	.4759	.4813	.4867	.4921	.4976
	-	-	-	16	.4950	.5090	.5040	.4976	.5016	.5057	.5097	.5138
	-	18	-	-	.5020	.5150	.5106	.5048	.5084	.5120	.5156	.5192
	-	-	24	-	.5080	.5200	.5162	.5105	.5138	.5170	.5203	.5235
	-	-	-	28	.5170	.5270	.5244	.5192	.5219	.5246	.5273	.5300
	-	-	-	32	.5240	.5320	.5301	.5254	.5277	.5300	.5323	.5347
5/8	11	-	-	-	.5290	.5360	.5344	.5300	.5321	.5341	.5361	.5381
5/8	11	-	-	-	.5270	.5460	.5391	.5305	.5364	.5423	.5482	.5541



TECHNICAL DATA

THREAD MILLS

COMBO TAPS

SPIRAL FLUTE TAPS

SPIRAL POINT TAPS

STRAIGHT FLUTE TAPS

FORMING TAPS

SCREW THREAD INSERT TAPS

PIPE TAPS

TECHNICAL DATA

Size	Threads Per Inch				Minor Diameter			Tap Drill Diameter (Cutting Tap)				
	UNC	UNF	UNEF	UN	Min. 2B&3B	Max. 2B	Max. 3B	80% Thread	75% Thread	70% Thread	65% Thread	60% Thread
5/8	-	-	-	12	.5350	.5530	.5463	.5384	.5438	.5492	.5546	.5601
	-	-	-	16	.5570	.5710	.5662	.5601	.5641	.5682	.5722	.5763
	-	18	-	-	.5650	.5780	.5730	.5673	.5709	.5745	.5781	.5817
	-	-	-	20	.5710	.5820	.5787	.5730	.5763	.5795	.5828	.5860
	-	-	24	-	.5800	.5900	.5869	.5817	.5844	.5871	.5898	.5925
	-	-	-	28	.5860	.5950	.5926	.5879	.5902	.5925	.5948	.5972
11/16	-	-	-	32	.5910	.5980	.5969	.5925	.5946	.5966	.5986	.6006
	-	-	-	12	.5970	.6150	.6085	.6009	.6063	.6117	.6171	.6226
	-	-	-	16	.6200	.6340	.6284	.6226	.6266	.6307	.6347	.6388
	-	-	-	20	.6330	.6450	.6412	.6355	.6388	.6420	.6453	.6485
	-	-	24	-	.6420	.6520	.6494	.6442	.6469	.6496	.6523	.6550
	-	-	-	28	.6490	.6570	.6551	.6504	.6527	.6550	.6573	.6597
3/4	-	-	-	32	.6540	.6610	.6594	.6550	.6571	.6591	.6611	.6631
	10	-	-	-	.6420	.6630	.6545	.6461	.6526	.6591	.6656	.6721
	-	-	-	12	.6600	.6780	.6707	.6634	.6688	.6742	.6796	.6851
	-	16	-	-	.6820	.6960	.6908	.6851	.6891	.6932	.6972	.7013
	-	-	20	-	.6960	.7070	.7037	.6980	.7013	.7045	.7078	.7110
	-	-	-	28	.7110	.7200	.7176	.7129	.7152	.7175	.7198	.7222
13/16	-	-	-	32	.7160	.7240	.7219	.7175	.7196	.7216	.7236	.7256
	-	-	-	12	.7220	.7400	.7329	.7259	.7313	.7367	.7421	.7476
	-	-	-	16	.7450	.7590	.7533	.7476	.7516	.7557	.7597	.7638
	-	-	20	-	.7580	.7700	.7662	.7605	.7638	.7670	.7703	.7735
	-	-	-	28	.7740	.7820	.7801	.7754	.7777	.7800	.7823	.7847
	-	-	-	32	.7790	.7860	.7844	.7800	.7821	.7841	.7861	.7881
7/8	9	-	-	-	.7550	.7780	.7681	.7595	.7668	.7740	.7812	.7884
	-	-	-	12	.7850	.8030	.7948	.7884	.7938	.7992	.8046	.8101
	-	14	-	-	.7980	.8140	.8068	.8008	.8054	.8101	.8147	.8193
	-	-	-	16	.8070	.8210	.8158	.8101	.8141	.8182	.8222	.8263
	-	-	20	-	.8210	.8320	.8287	.8230	.8263	.8295	.8328	.8360
	-	-	-	28	.8360	.8450	.8426	.8379	.8402	.8425	.8448	.8472
15/16	-	-	-	32	.8410	.8490	.8469	.8425	.8446	.8466	.8486	.8506
	-	-	-	12	.8470	.8650	.8575	.8509	.8563	.8617	.8671	.8726
	-	-	-	16	.8700	.8840	.8783	.8726	.8766	.8807	.8847	.8888
	-	-	20	-	.8830	.8950	.8912	.8855	.8888	.8920	.8953	.8985
	-	-	-	28	.8990	.9070	.9051	.9004	.9027	.9050	.9073	.9097
	-	-	-	32	.9040	.9110	.9094	.9050	.9071	.9091	.9111	.9131
1	8	-	-	-	.8650	.8900	.8797	.8701	.8782	.8863	.8945	.9026
	-	12	-	-	.9100	.9280	.9198	.9134	.9188	.9242	.9296	.9351
	-	-	-	16	.9320	.9460	.9408	.9351	.9391	.9432	.9472	.9513
	-	-	20	-	.9460	.9570	.9537	.9480	.9513	.9545	.9578	.9610
	-	-	-	28	.9610	.9700	.9676	.9629	.9652	.9675	.9698	.9722
	-	-	-	32	.9660	.9740	.9719	.9675	.9696	.9716	.9736	.9756
1-1/16	-	-	-	8	.9270	.9520	.9422	.9326	.9407	.9488	.9570	.9651
	-	-	-	12	.9720	.9900	.9823	.9759	.9813	.9867	.9921	.9976
	-	-	-	16	.9950	1.0090	1.0033	.9976	1.0016	1.0057	1.0097	1.0138
	-	-	18	-	1.0020	1.0150	1.0105	1.0048	1.0084	1.0120	1.0156	1.0192
	-	-	-	20	1.0080	1.0200	1.0162	1.0105	1.0138	1.0170	1.0203	1.0235
	-	-	-	28	1.0240	1.0320	1.0301	1.0254	1.0277	1.0300	1.0323	1.0347
1-1/8	7	-	-	-	.9700	.9980	.9875	.9765	.9858	.9951	1.0044	1.0137
	-	-	-	8	.9900	1.0150	1.0047	.9951	1.0032	1.0113	1.0195	1.0276
	-	12	-	-	1.0350	1.0530	1.0448	1.0384	1.0438	1.0492	1.0546	1.0601
	-	-	-	16	1.0570	1.0710	1.0658	1.0601	1.0641	1.0682	1.0722	1.0763
	-	-	18	-	1.0650	1.0780	1.0730	1.0673	1.0709	1.0745	1.0781	1.0817
	-	-	-	20	1.0710	1.0820	1.0787	1.0730	1.0763	1.0795	1.0828	1.0860

Size	Threads Per Inch				Minor Diameter			Tap Drill Diameter (Cutting Tap)				
	UNC	UNF	UNEF	UN	Min. 2B&3B	Max. 2B	Max. 3B	80% Thread	75% Thread	70% Thread	65% Thread	60% Thread
1-1/8	-	-	-	28	1.0860	1.0950	1.0926	1.0879	1.0902	1.0925	1.0948	1.0972
1-3/16	-	-	-	8	1.0520	1.0770	1.0672	1.0576	1.0657	1.0738	1.0820	1.0901
	-	-	-	12	1.0970	1.1150	1.1073	1.1009	1.1063	1.1117	1.1171	1.1226
	-	-	-	16	1.1200	1.1340	1.1283	1.1226	1.1266	1.1307	1.1347	1.1388
	-	-	18	-	1.1270	1.1400	1.1355	1.1298	1.1334	1.1370	1.1406	1.1442
	-	-	-	20	1.1330	1.1450	1.1412	1.1355	1.1388	1.1420	1.1453	1.1485
	-	-	-	28	1.1490	1.1570	1.1551	1.1504	1.1527	1.1550	1.1573	1.1597
1-1/4	7	-	-	-	1.0950	1.1230	1.1125	1.1015	1.1108	1.1201	1.1294	1.1387
	-	-	-	8	1.1150	1.1400	1.1297	1.1201	1.1282	1.1363	1.1445	1.1526
	-	12	-	-	1.1600	1.1780	1.1698	1.1634	1.1688	1.1742	1.1796	1.1851
	-	-	-	16	1.1820	1.1960	1.1908	1.1851	1.1891	1.1932	1.1972	1.2013
	-	-	18	-	1.1900	1.2030	1.1980	1.1923	1.1959	1.1995	1.2031	1.2067
	-	-	-	20	1.1960	1.2070	1.2037	1.1980	1.2013	1.2045	1.2078	1.2110
1-5/16	-	-	-	28	1.2110	1.2200	1.2176	1.2129	1.2152	1.2175	1.2198	1.2222
	-	-	-	8	1.1770	1.2020	1.2176	1.1826	1.1907	1.1988	1.2070	1.2151
	-	-	-	12	1.2220	1.2400	1.2323	1.2259	1.2313	1.2367	1.2421	1.2476
	-	-	-	16	1.2450	1.2590	1.2533	1.2476	1.2516	1.2557	1.2597	1.2638
	-	-	18	-	1.2520	1.2650	1.2605	1.2548	1.2584	1.2620	1.2656	1.2692
	-	-	-	20	1.2580	1.2700	1.2662	1.2605	1.2638	1.2670	1.2703	1.2735
1-3/8	-	-	-	28	1.2740	1.2820	1.2801	1.2754	1.2777	1.2800	1.2823	1.2847
	6	-	-	-	1.1950	1.2250	1.2146	1.2018	1.2126	1.2235	1.2343	1.2451
	-	-	-	8	1.2400	1.2650	1.2547	1.2451	1.2532	1.2613	1.2695	1.2776
	-	12	-	-	1.2850	1.3030	1.2948	1.2884	1.2938	1.2992	1.3046	1.3101
	-	-	-	16	1.3070	1.3210	1.3158	1.3101	1.3141	1.3182	1.3222	1.3263
	-	-	18	-	1.3150	1.3280	1.3230	1.3173	1.3209	1.3245	1.3281	1.3317
1-7/16	-	-	-	20	1.3210	1.3320	1.3287	1.3230	1.3263	1.3295	1.3328	1.3360
	-	-	-	28	1.3360	1.3450	1.3426	1.3379	1.3402	1.3425	1.3448	1.3472
	-	-	-	6	1.2570	1.2880	1.2770	1.2643	1.2751	1.2860	1.2968	1.3076
	-	-	-	8	1.3020	1.3270	1.3172	1.3076	1.3157	1.3238	1.3320	1.3401
	-	-	-	12	1.3470	1.3650	1.3573	1.3509	1.3563	1.3617	1.3671	1.3726
	-	-	-	16	1.3700	1.3840	1.3783	1.3726	1.3766	1.3807	1.3847	1.3888
1-1/2	-	-	18	-	1.3770	1.3900	1.3855	1.3798	1.3834	1.3870	1.3906	1.3942
	-	-	-	20	1.3830	1.3950	1.3912	1.3855	1.3888	1.3920	1.3953	1.3985
	-	-	-	28	1.3990	1.4070	1.4051	1.4004	1.4027	1.4050	1.4073	1.4097
	6	-	-	-	1.3200	1.3500	1.3396	1.3268	1.3376	1.3485	1.3593	1.3701
	-	-	-	8	1.3650	1.3900	1.3797	1.3701	1.3782	1.3863	1.3945	1.4026
	-	12	-	-	1.4100	1.4280	1.4198	1.4134	1.4188	1.4242	1.4296	1.4351
1-9/16	-	-	-	16	1.4320	1.4460	1.4408	1.4351	1.4391	1.4432	1.4472	1.4513
	-	-	18	-	1.4400	1.4520	1.4480	1.4423	1.4459	1.4495	1.4531	1.4567
	-	-	-	20	1.4460	1.4570	1.4537	1.4480	1.4513	1.4545	1.4578	1.4610
	-	-	-	28	1.4610	1.4700	1.4676	1.4629	1.4652	1.4675	1.4698	1.4722
	-	-	-	6	1.3820	1.4130	1.4021	1.3893	1.4001	1.4110	1.4218	1.4326
	-	-	-	8	1.4270	1.4520	1.4422	1.4326	1.4407	1.4488	1.4570	1.4651
1-5/8	-	-	-	12	1.4720	1.4900	1.4823	1.4759	1.4813	1.4867	1.4921	1.4976
	-	-	-	16	1.4950	1.5090	1.5033	1.4976	1.5016	1.5057	1.5097	1.5138
	-	-	18	-	1.5020	1.5150	1.5105	1.5048	1.5084	1.5120	1.5156	1.5192
	-	-	-	20	1.5080	1.5200	1.5162	1.5105	1.5138	1.5170	1.5203	1.5235
	-	-	-	6	1.4450	1.4750	1.4646	1.4518	1.4626	1.4735	1.4843	1.4951
	-	-	-	8	1.4900	1.5150	1.5047	1.4951	1.5032	1.5113	1.5195	1.5276
1-11/16	-	-	-	12	1.5350	1.5530	1.5448	1.5384	1.5438	1.5492	1.5546	1.5601
	-	-	-	16	1.5570	1.5710	1.5658	1.5601	1.5641	1.5682	1.5722	1.5763
	-	-	18	-	1.5650	1.5780	1.5730	1.5673	1.5709	1.5745	1.5781	1.5817
	-	-	-	20	1.5710	1.5820	1.5787	1.5730	1.5763	1.5795	1.5828	1.5860
1-11/16	-	-	6	1.5070	1.5380	1.5271	1.5143	1.5251	1.5360	1.5468	1.5576	



TECHNICAL DATA

THREAD MILLS

COMBO TAPS

SPIRAL FLUTE TAPS

SPIRAL POINT TAPS

STRAIGHT FLUTE TAPS

FORMING TAPS

SCREW THREAD INSERT TAPS

PIPE TAPS

TECHNICAL DATA

Size	Threads Per Inch				Minor Diameter			Tap Drill Diameter (Cutting Tap)				
	UNC	UNF	UNEF	UN	Min. 2B&3B	Max. 2B	Max. 3B	80% Thread	75% Thread	70% Thread	65% Thread	60% Thread
1-11/16	-	-	-	8	1.5520	1.5770	1.5672	1.5576	1.5657	1.5738	1.5820	1.5901
	-	-	-	12	1.5970	1.6150	1.6073	1.6009	1.6063	1.6117	1.6171	1.6226
	-	-	-	16	1.6200	1.6340	1.6283	1.6226	1.6266	1.6307	1.6347	1.6388
	-	-	18	-	1.6270	1.6400	1.6355	1.6298	1.6334	1.6370	1.6406	1.6442
	-	-	-	20	1.6330	1.6450	1.6412	1.6355	1.6388	1.6420	1.6453	1.6485
1-3/4	5	-	-	-	1.5340	1.5680	1.5575	1.5422	1.5552	1.5681	1.5811	1.5941
	-	-	-	6	1.5700	1.6000	1.5896	1.5768	1.5876	1.5985	1.6093	1.6201
	-	-	-	8	1.6150	1.6400	1.6297	1.6201	1.6282	1.6363	1.6445	1.6526
	-	-	-	12	1.6600	1.6780	1.6698	1.6634	1.6688	1.6742	1.6796	1.6851
	-	-	-	16	1.6820	1.6960	1.6908	1.6851	1.6891	1.6932	1.6972	1.7013
1-13/16	-	-	-	20	1.6960	1.7070	1.7037	1.6980	1.7013	1.7045	1.7078	1.7110
	-	-	-	6	1.6320	1.6630	1.6521	1.6393	1.6501	1.6610	1.6718	1.6826
	-	-	-	8	1.6770	1.7020	1.6922	1.6826	1.6907	1.6988	1.7070	1.7151
	-	-	-	12	1.7220	1.7400	1.7323	1.7259	1.7313	1.7367	1.7421	1.7476
	-	-	-	16	1.7450	1.7590	1.7533	1.7476	1.7516	1.7557	1.7597	1.7638
1-7/8	-	-	-	20	1.7580	1.7700	1.7662	1.7605	1.7638	1.7670	1.7703	1.7735
	-	-	-	6	1.6950	1.7250	1.7146	1.7018	1.7126	1.7235	1.7343	1.7451
	-	-	-	8	1.7400	1.7650	1.7547	1.7451	1.7532	1.7613	1.7695	1.7776
	-	-	-	12	1.7850	1.8030	1.7948	1.7884	1.7938	1.7992	1.8046	1.8101
	-	-	-	16	1.8070	1.8210	1.8158	1.8101	1.8141	1.8182	1.8222	1.8263
1-15/16	-	-	-	20	1.8210	1.8320	1.8287	1.8230	1.8263	1.8295	1.8328	1.8360
	-	-	-	6	1.7570	1.7880	1.7771	1.7643	1.7751	1.7860	1.7968	1.8076
	-	-	-	8	1.8020	1.8270	1.8172	1.8076	1.8157	1.8238	1.8320	1.8401
	-	-	-	12	1.8470	1.8650	1.8573	1.8509	1.8563	1.8617	1.8671	1.8726
	-	-	-	16	1.8700	1.8840	1.8783	1.8726	1.8766	1.8807	1.8847	1.8888
2	-	-	-	20	1.8830	1.8950	1.8912	1.8855	1.8888	1.8920	1.8953	1.8985
	4 1/2	-	-	-	1.7590	1.7950	1.7861	1.7691	1.7835	1.7979	1.8124	1.8268
	-	-	-	6	1.8200	1.8500	1.8396	1.8268	1.8376	1.8485	1.8593	1.8701
	-	-	-	8	1.8650	1.8900	1.8797	1.8701	1.8782	1.8863	1.8945	1.9026
	-	-	-	12	1.9100	1.9280	1.9198	1.9134	1.9188	1.9242	1.9296	1.9351
2-1/8	-	-	-	16	1.9320	1.9460	1.9408	1.9351	1.9391	1.9432	1.9472	1.9513
	-	-	-	20	1.9460	1.9570	1.9537	1.9480	1.9513	1.9545	1.9578	1.9610
	-	-	-	6	1.9450	1.9750	1.9646	1.9518	1.9626	1.9735	1.9843	1.9951
	-	-	-	8	1.9900	2.0150	2.0047	1.9951	2.0032	2.0113	2.0195	2.0276
	-	-	-	12	2.0350	2.0530	2.0448	2.0384	2.0438	2.0492	2.0546	2.0601
2-1/4	-	-	-	16	2.0570	2.0710	2.0658	2.0601	2.0641	2.0682	2.0722	2.0763
	-	-	-	20	2.0710	2.0820	2.0787	2.0730	2.0763	2.0795	2.0828	2.0860
	4 1/2	-	-	-	2.0090	2.0450	2.0361	2.0191	2.0335	2.0479	2.0624	2.0768
	-	-	-	6	2.0700	2.1000	2.0896	2.0768	2.0876	2.0985	2.1093	2.1201
	-	-	-	8	2.1150	2.1400	2.1297	2.1201	2.1282	2.1363	2.1445	2.1526
2-3/8	-	-	-	12	2.1600	2.1780	2.1698	2.1634	2.1688	2.1742	2.1796	2.1851
	-	-	-	16	2.1820	2.1960	2.1908	2.1851	2.1891	2.1932	2.1972	2.2013
	-	-	-	20	2.1960	2.2070	2.2037	2.1980	2.2013	2.2045	2.2078	2.2110
	-	-	-	6	2.1950	2.2260	2.2146	2.2018	2.2126	2.2235	2.2343	2.2451
	-	-	-	8	2.2400	2.2650	2.2547	2.2451	2.2532	2.2613	2.2695	2.2776
2-1/2	-	-	-	12	2.2850	2.3030	2.2948	2.2884	2.2938	2.2992	2.3046	2.3101
	-	-	-	16	2.3070	2.3210	2.3158	2.3101	2.3141	2.3182	2.3222	2.3263
	-	-	-	20	2.3210	2.3320	2.3287	2.3230	2.3263	2.3295	2.3328	2.3360
	4	-	-	-	2.2290	2.2670	2.2594	2.2402	2.2564	2.2727	2.2889	2.3052
	-	-	-	6	2.3200	2.3500	2.3396	2.3268	2.3376	2.3485	2.3593	2.3701
2-1/2	-	-	-	8	2.3650	2.3900	2.3797	2.3701	2.3782	2.3863	2.3945	2.4026
	-	-	-	12	2.4100	2.4280	2.4198	2.4134	2.4188	2.4242	2.4296	2.4351
	-	-	-	16	2.4320	2.4460	2.4408	2.4351	2.4391	2.4432	2.4472	2.4513
	-	-	-	20	2.4460	2.4570	2.4537	2.4480	2.4513	2.4545	2.4578	2.4610