



Hand Taps		
Material Guide		SFM
NICKEL BASE ALLOYS	Inconel - 625/718, Waspalloy, Rene, Hastelloy	10
TITANIUM ALLOYS	Commercially Pure, 6AL - 4V, Astm 1/2/3, 6Al - 25N - 4Zr - 2Mo - Si	10
STAINLESS STEEL (PRECIPITATION)	13/8, 15/5, 17 - 4	15 - 25
STAINLESS STEEL (AUSTENITIC)	200 Series, 302, 303, 304, 304L, 316, 316L	10 - 20
STAINLESS STEEL (MARTENSITIC)	403, 410, 416, 440	15
HIGH STRENGTH TOOL STEELS	4140, 4340, 6150, 5210, A2, D2 P20, H11, H13, S2, 01	15 - 25
MEDIUM ALLOY STEELS	200, 250, 300	20 - 40
CARBON STEELS	1000's, 1100's, 1300's	30 - 50
DUCTILE	Ductile Cast Irons	50
CAST IRONS	Gray Cast Irons	30 - 60
ALUMINUM ALLOYS	2014, 2024, 6061, 7075	60 - 80
MAGNESIUM		50 - 70
COPPER, COPPER ALLOYS		60 - 80
BRASS, BRONZE	Brass, Alum/Bronze, Low Silicon Bronze	30 - 100
COMPOSITES	G-10 Fiberglass, Graphite, Graphite/Epoxy, Plastics	50 - 70



TAP HOLE SIZE							
TAP SIZE	TPI NC UN	TPI NF UN	75% THREAD	65% THREAD	TAP DRILL SIZE (65% THREAD)	CLASS OF FIT	
						2B	3B
0	80	-	0.054	0.055	#54 or 1.4 mm	H3, H2	H2
1	64	-	0.066	0.067	#51 or 1.7 mm	H4, H3	H3, H2
1	-	72	0.067	0.068	#51 or 1.75 mm	H4, H3	H3, H2
2	56	-	0.078	0.079	#47 or 2.0 mm	H4, H3	H3, H2
2	-	64	0.079	0.080	2.0 mm	H4, H3	H3, H2
3	48	-	0.090	0.091	2.3 mm	H5, H4	H3, H2
3	-	56	0.091	0.092	2.3 mm	H5, H4	H3, H2
4	40	-	0.100	0.101	#39	H5, H4	H4, H3
4	-	48	0.103	0.104	#37	H5, H4	H4, H3
5	40	-	0.113	0.114	#33 or 2.9 mm	H5, H4	H4, H3
5	-	44	0.114	0.115	#33 or 2.9 mm	H5, H4	H4, H3
6	32	-	0.124	0.125	3.1 mm	H6, H5	H4, H3
6	-	40	0.126	0.127	1/8" or 3.2 mm	H5, H4	H4, H3
8	32	-	0.149	0.150	#25 or 3.8 mm	H6, H5	H4, H3
8	-	36	0.151	0.152	#24	H5, H4	H4, H3
10	24	-	0.170	0.172	11/64"	H7, H6, H5	H5, H4
10	-	32	0.175	0.176	#16 or .176"	H6, H5	H4, H3
12	24	-	0.196	0.198	#9 or 5.0 mm	H7, H6, H5	H5, H4
12	-	28	0.199	0.201	#7 or 5.1 mm	H7, H6, H5	H4, H3
1/4	20	-	0.225	0.227	5.75 mm	H8, H7, H6	H5, H4
1/4	-	28	0.233	0.235	A	H7, H6, H5	H5, H4
5/16	18	-	0.285	0.287	7.25 mm	H9, H8, H7	H6, H5
5/16	-	24	0.292	0.294	.293"	H8, H7, H6	H5, H4
3/8	16	-	0.344	0.347	S or 11/32"	H9, H8, H7	H7, H6
3/8	-	24	0.355	0.357	9.0 mm	H8, H7, H6	H6, H5
7/16	14	-	0.402	0.405	Y	H10, H9, H8	H7, H6
7/16	-	20	0.414	0.416	Z or 10.5 mm	H9, H8, H7	H6, H5
1/2	13	-	0.462	0.466	.463"	H11, H10, H9	H8, H7, H6
1/2	-	20	0.475	0.477	.476"	H9, H8, H7	H6, H5

PRE TAP HOLE SIZE - METRIC				
TAP SIZE	PITCH	75% THREAD	65% THREAD	NEAREST DRILL SIZE
M1.6	.350	.057	.058	1.45 mm
M1.7	.350	.061	.062	1.55 mm
M2	.400	.072	.073	1.85 mm
M2.5	.450	.091	.092	2.30 mm
M3	.500	.110	.111	#35
M3.5	.600	.128	.129	#30
M4	.700	.145	.146	3.70 mm
M5	.800	.183	.184	#14
M6	1.000	.218	.220	5.50 mm
M8	1.250	.291	.294	7.40 mm
M10	1.500	.365	.368	9.30 mm
M12	1.750	.439	.442	7/16"