

TECHNICAL DATA

TAPS

Tap Projection and Hole Size for Pipe Taps

Nominal Size	Tap Thread Limits				*Projection				Ream Dia. Large End	Gage Width			***Tap Drill Size B	**Tap Drill Size BB
	*L ₂	*L ₂ Tolerance	Taper Per FT. Limits		NPT & NPTF Min.	NPT & NPTF Max.	SAE-Short			L ₁	L ₃	A		
1/16 - 27	.312	±1/16	23/32	25/32	.250	.375	.222	.259	.2515	.1600	.1111	.2711	15/64	C
1/8 - 27	.312	±1/16	23/32	25/32	.250	.375	.222	.259	.3440	.1615	.1111	.2726	21/64	Q
1/4 - 18	.459	±1/16	23/32	25/32	.397	.521	.333	.389	.4472	.2278	.1667	.3945	27/64	7/16
3/8 - 18	.454	±1/16	23/32	25/32	.392	.516	.333	.389	.5826	.2400	.1667	.4067	9/16	9/16
1/2 - 14	.579	±1/16	23/32	25/32	.517	.641	.429	.500	.7213	.3200	.2143	.5343	11/16	45/64
3/4 - 14	.565	±1/16	23/32	25/32	.503	.627	.429	.500	.9317	.3390	.2143	.5533	57/64	29/32
1 - 11-1/2	.678	±3/32	23/32	25/32	.584	.772	-	-	1.1691	.4000	.2609	.6609	1-1/8	1-9/64
1-1/4 - 11-1/2	.686	±3/32	23/32	25/32	.592	.780	-	-	1.5138	.4200	.2609	.6809	1-15/32	1-31/64
1-1/2 - 11-1/2	.699	±3/32	23/32	25/32	.606	.792	-	-	1.7528	.4200	.2609	.6809	1-45/64	1-23/32
2 - 11-1/2	.667	±3/32	23/32	25/32	.574	.760	-	-	2.2267	.4360	.2609	.6909	2-11/64	2-3/16

TOLERANCES

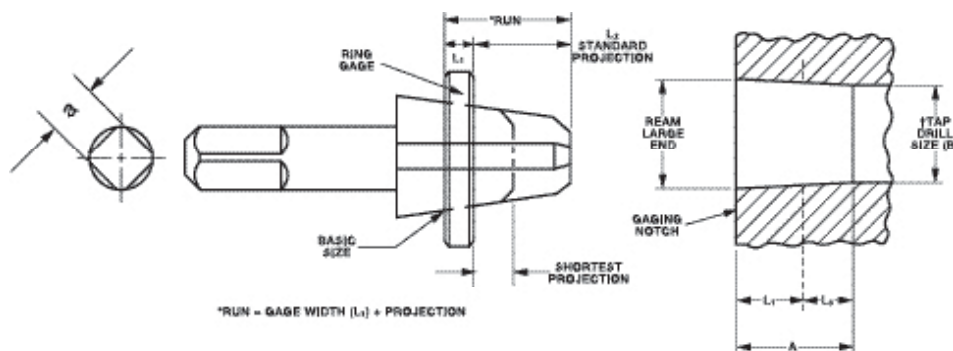
Ground Thread = A maximum lead deviation of plus or minus .0005" within any two threads no further apart than 1" is permitted.

Threads per inch	Angle Tolerance
	Half Angle
8 11-1/2 to 27 inclusive	Ground Thread
	25' Plus or Minus 30' Plus or minus

*Distance small end of tap projects through L₁ Taper Thread Ring Gage.

**Recommended sizes given permit direct tapping without reaming the hole, but only give a full thread for approx L₁ distance.

***TAP DRILL SIZE (B) is size for use with a taper reamer. The tap drill size for use without a taper reamer is shown in column BB



Recommended Minor Diameters and Tap Drills For STI Spiral Point and Hand Taps

d	T.P.I.		Aluminum				Plastic-Steel-Magnesium			
	UNC	UNF	Diameter of Tapped Holes		Recommended Minor Recommended Drill		Diameter of Tapped Holes		Recommended Minor Recommended Drill	
			Min.	Max.	Tap Drill Size	Dec. Eq.	Min.	Max.	Tap Drill Size	Dec. Eq.
4	40	-	.1160	.1210	31	.1200	.1190	.1240	31	.1200
6	32	-	.1440	.1500	26	.1470	.1480	.1540	25	.1495
8	32	-	.1700	.1760	17	.1730	.1740	.1800	16	.1770
10	24	-	.1990	.2050	13/64	.2031	.2030	.2090	5	.2055
10	-	32	.1960	.2020	7	.2010	.2000	.2060	13/64	.2031
1/4	20	-	.2610	.2670	H	.2660	.2650	.2710	H	.2660
1/4	-	28	.2570	.2640	G	.2610	.2610	.2680	6.7MM	.2638
5/16	18	-	.3280	.3340	Q	.3320	.3310	.3370	Q	.3320
5/16	-	24	.3230	.3300	21/64	.3281	.3270	.3340	21/64	.3281
3/8	16	-	.3900	.3980	X	.3970	.3960	.4020	X	.3970
3/8	-	24	.3850	.3920	25/64	.3906	.3890	.3960	25/64	.3906
7/16	14	-	.4530	.4630	29/64	.4531	.4610	.4710	29/64	.4531
7/16	-	20	.4500	.4580	29/64	.4531	.4530	.4610	29/64	.4531
1/2	13	-	.5150	.5250	33/64	.5156	.5230	.5330	17/64	.5312
1/2	-	20	.5130	.5220	33/64	.5156	.5150	.5240	17/64	.5312