



EXTERNAL THREADS FOR MACHINE SCREWS AND SEMS									ASME B 1.1	
Nominal Size & Threads per Inch	Series Designation	Allowance	Major Diameter		Pitch Diameter			Stress Area, in ²	Tensile Strength, ^a lb., min.	
			Max	Min	Max	Min	Tolerance			
0-80 0.060	UNF	.0005	.0595	.0563	.0514	.0496	.0018	-	-	
1-64 0.073	UNC	.0006	.0724	.0686	.0623	.0603	.0020	-	-	
2-56 0.086	UNC	.0006	.0854	.0813	.0738	.0717	.0021	-	-	
3-48 0.099	UNC	.0007	.0983	.0938	.0848	.0825	.0023	-	-	
4-40 0.112	UNC	.0008	.1112	.1061	.0950	.0925	.0025	0.00604	360	
5-40 0.125	UNC	.0008	.1242	.1191	.1080	.1054	.0026	0.00796	470	
6-32 0.138	UNC	.0008	.1372	.1312	.1169	.1141	.0028	0.00909	550	
8-32 0.164	UNC	.0009	.1631	.1571	.1428	.1399	.0029	0.0140	850	
10-24 0.190	UNC	.0010	.1890	.1818	.1619	.1586	.0033	0.0175	1050	
10-32 0.190	UNF	.0009	.1891	.1831	.1688	.1658	.0030	0.0200	1200	
12-24 0.216	UNC	.0010	.2150	.2078	.1879	.1845	.0034	0.0242	1450	
1/4-20 0.250	UNC	.0011	.2489	.2408	.2164	.2127	.0037	0.0318	1900	
1/4-28 0.250	UNF	.0010	.2490	.2425	.2258	.2225	.0033	0.0364	2200	
5/16-18 0.312	UNC	.0012	.3113	.3026	.2752	.2712	.0040	0.0524	3150	
3/8-16 0.375	UNC	.0013	.3737	.3643	.3331	.3287	.0044	0.0775	4650	
1/2-13 0.500	UNC	.0015	.4985	.4876	.4485	.4435	.0050	0.1419	8500	

Tolerance on Length	Nominal Screw Size	Nominal Screw Length			
		Up to 1/2 in., incl.	Over 1/2 to 1 in., incl.	Over 1 to 2 in., incl.	Over 2 in.
	L	0 thru 12	-0.02	-0.03	-0.06
	1/4 thru 3/4	-0.03	-0.03	-0.06	-0.09

^aTensile strength values are based on 60,000 psi. and apply to carbon steel screws and SEMS only. Hex and Hex Washer head machine screws of sufficient length may be wedge tensile tested. Other head styles may be axial tensile tested.