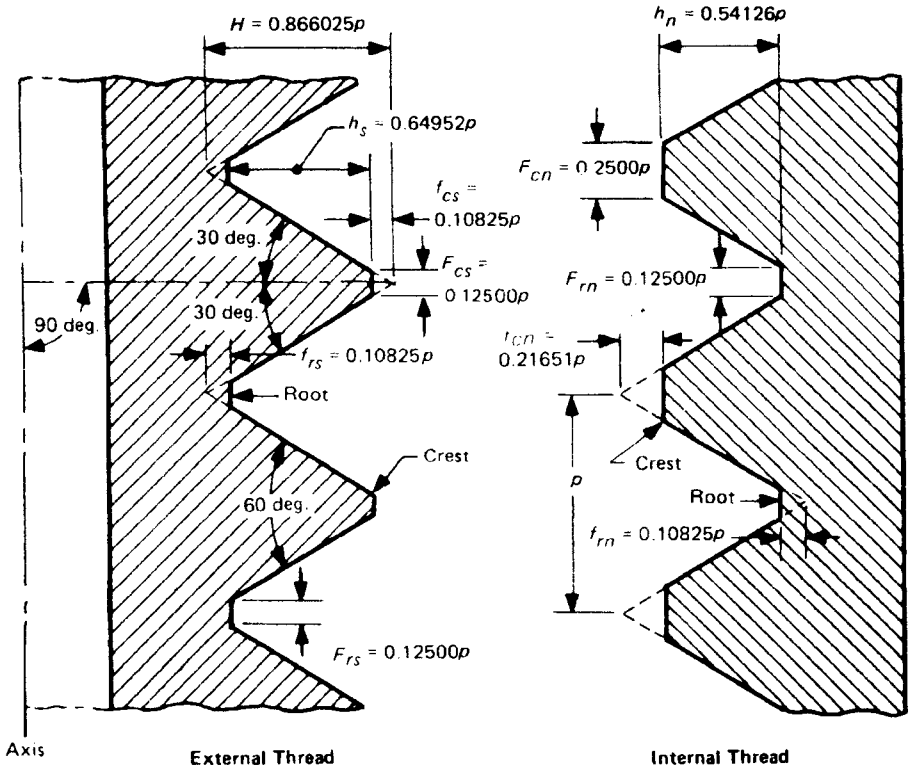

TABLE 6 DIMENSIONS OF EXTERNAL AND INTERNAL STRAIGHT PIPE THREADS FOR FIXTURES, NPSM
(Free Fitting Mechanical Joints)

Nom. Pipe Size	O.D. of Pipe (D)	Threads/ in.	Allow-ance	External Thread, Class 2A				Internal Thread, Class 2B			
				Major Diameter		Pitch Diameter		Minor Diameter		Pitch Diameter	
				Maximum	Minimum	Maximum	Minimum	Minimum	Maximum	Minimum[1]	Maximum
1	2	3	4	5	6	7	8	9	10	11	12
1/8	0.405	27	0.0011	0.397	0.390	0.3725	0.3689	0.358	0.364	0.3736	0.3783
1/4	0.540	18	0.0013	0.526	0.517	0.4903	0.4859	0.468	0.481	0.4916	0.4974
3/8	0.675	18	0.0014	0.662	0.653	0.6256	0.6211	0.603	0.612	0.6270	0.6329
1/2	0.840	14	0.0015	0.823	0.813	0.7769	0.7718	0.747	0.759	0.7784	0.7851
3/4	1.050	14	0.0016	1.034	1.024	0.9873	0.9820	0.958	0.970	0.9889	0.9958
1	1.315	11.5	0.0017	1.293	1.281	1.2369	1.2311	1.201	1.211	1.2386	1.2462
1 1/4	1.660	11.5	0.0018	1.638	1.626	1.5816	1.5756	1.546	1.555	1.5834	1.5912
1 1/2	1.900	11.5	0.0018	1.877	1.865	1.8205	1.8144	1.785	1.794	1.8223	1.8302
2	2.375	11.5	0.0019	2.351	2.339	2.2944	2.2882	2.259	2.268	2.2963	2.3044
2 1/2	2.875	8	0.0022	2.841	2.826	2.7600	2.7526	2.708	2.727	2.7622	2.7720
3	3.500	8	0.0023	3.467	3.452	3.3862	3.3786	3.334	3.353	3.3885	3.3984
3 1/2	4.000	8	0.0023	3.968	3.953	3.8865	3.8788	3.835	3.848	3.8888	3.8988
4	4.500	8	0.0023	4.466	4.451	4.3848	4.3771	4.333	4.346	4.3871	4.3971
5	5.563	8	0.0024	5.528	5.513	5.4469	5.4390	5.395	5.408	5.4493	5.4598
6	6.625	8	0.0024	6.585	6.570	6.5036	6.4955	6.452	6.464	6.5060	6.5165

GENERAL NOTES:

(a) NPSM threads are of Unified screw thread form to Classes 2A/2B tolerances, having the minimum pitch diameter of the internal thread basic and equal to E_1 of NPT threads.

(b) The minor diameters of external threads and major diameters of internal threads are those as produced by commercial straight pipe dies and commercial ground straight pipe taps.

The major diameter of the external thread has been calculated on the basis of a truncation of 0.10825p, and the minor diameter of the internal thread has been calculated on the basis of a truncation of 0.21651p, to provide no interference at crest and root when product is gaged with gages made in accordance with 9.2.

NOTE:

(1) Column 11 is the same as the pitch diameter at the large end of internal thread, E_1, *Basic*. (See Table 2, col. 8.)

Licensed to Stephen Burton. Downloaded 11/13/2008 10:39 PM. Single user license only. Copying and networking prohibited.