

**British Standard External and Internal Pipe Threads (Pressure-tight Joints)—
Metric and Inch Dimensions and Limits of Size BS 21:1973**

W
55°
BSPT

Nominal Size	No. of Threads per Inch ^a		Basic Diameters at Gage Plane			Gage Length		Number of Useful Threads on Pipe for Basic Gage Length ^b	Tol., + and -, Gage Plane to Face of Int. Taper Thread	Tol., + and -, on Diameter of Parallel Int. Threads
			Major	Pitch	Minor	Basic	Tolerance (+ and -)			
1/16	28	{	7.723	7.142	6.561	(4 3/8)	(1)	(7 1/8)	(1 1/4)	0.071
			0.304	0.2812	0.2583	4.0	0.9	6.5	1.1	0.0028
1/8	28	{	9.728	9.147	8.566	(4 3/8)	(1)	(7 1/8)	(1 1/4)	0.071
			0.383	0.3601	0.3372	4.0	0.9	6.5	1.1	0.0028
1/4	19	{	13.157	12.301	11.445	(4 1/2)	(1)	(7 1/4)	(1 1/4)	0.104
			0.518	0.4843	0.4506	6.0	1.3	9.7	1.7	0.0041
3/8	19	{	16.662	15.806	14.950	(4 3/4)	(1)	(7 1/2)	(1 1/4)	0.104
			0.656	0.6223	0.5886	6.4	1.3	10.1	1.7	0.0041
1/2	14	{	20.955	19.793	18.631	(4 1/2)	(1)	(7 1/4)	(1 1/4)	0.142
			0.825	0.7793	0.7336	8.2	1.8	13.2	2.3	0.0056
3/4	14	{	26.441	25.279	24.117	(5 1/4)	(1)	(8)	(1 1/4)	0.142
			1.041	0.9953	0.9496	9.5	1.8	14.5	2.3	0.0056
1	11	{	33.249	31.770	30.291	(4 1/2)	(1)	(7 1/4)	(1 1/4)	0.180
			1.309	1.2508	1.1926	10.4	2.3	16.8	2.9	0.0071
1 1/4	11	{	41.910	40.431	38.952	(5 1/2)	(1)	(8 1/4)	(1 1/4)	0.180
			1.650	1.5918	1.5336	12.7	2.3	19.1	2.9	0.0071
1 1/2	11	{	47.803	46.324	44.845	(5 1/2)	(1)	(8 1/4)	(1 1/4)	0.180
			1.882	1.8238	1.7656	12.7	2.3	19.1	2.9	0.0071
2	11	{	59.614	58.135	56.656	(6 3/8)	(1)	(10 1/8)	(1 1/4)	0.180
			2.347	2.2888	2.2306	15.9	2.3	23.4	2.9	0.0071
2 1/2	11	{	75.184	73.705	72.226	(7 1/8)	(1 1/2)	(11 1/8)	(1 1/2)	0.216
			2.960	2.9018	2.8436	17.5	3.5	26.7	3.5	0.0085
3	11	{	87.884	86.405	84.926	(8 15/16)	(1 1/2)	(12 15/16)	(1 1/2)	0.216
			3.460	3.4018	3.3436	20.6	3.5	29.8	3.5	0.0085
4	11	{	113.030	111.551	110.072	(11)	(1 1/2)	(15 1/2)	(1 1/2)	0.216
			4.450	4.3918	4.3336	25.4	3.5	35.8	3.5	0.0085
5	11	{	138.430	136.951	135.472	(12 3/8)	(1 1/2)	(17 3/8)	(1 1/2)	0.216
			5.450	5.3918	5.3336	28.6	3.5	40.1	3.5	0.0085
6	11	{	163.830	162.351	160.872	(12 3/8)	(1 1/2)	(17 3/8)	(1 1/2)	0.216
			6.450	6.3918	6.3336	28.6	3.5	40.1	3.5	0.0085

^aIn the Standard BS 21:1973 the thread pitches in millimeters are as follows: 0.907 for 28 threads per inch, 1.337 for 19 threads per inch, 1.814 for 14 threads per inch, and 2.309 for 11 threads per inch.

^bThis is the minimum number of useful threads on the pipe for the basic gage length; for the maximum and minimum gage lengths, the minimum numbers of useful threads are, respectively, greater and less by the amount of tolerance in the column to the left. The design of internally threaded parts shall make allowance for receiving pipe ends of up to the minimum number of useful threads corresponding to the maximum gage length; the minimum number of useful *internal* threads shall be no less than 80 per cent of the minimum number of useful external threads for the minimum gage length.

Each basic metric dimension is given in roman figures (nominal sizes excepted) and each basic inch dimension is shown in italics directly beneath it. Figures in () are numbers of turns of thread with metric linear equivalents given beneath. Taper of taper thread is 1 in 16 on diameter.