MODEL ENGINEERS' WORKSHOP

DRILLING & TAPPING EQUIVALENT CHART

MODEL ENGINEERS' WORKSHOP

FRACTION, GAUGE & LETTER DRILL SIZES			TAPPING DRILL			THREAD	
FRACTION (in.)	OLD DRILL GAUGE	DEC. EQUIV. (in.)	BRITISH STANDARD (International) SERIES New Size (mm)	New Size (in.)	Dec. Equiv.	UNF UNC	BA BSW BSF
	80	.0135	0.35		.0138		
	79	.0145	0.38		.0150		
1/64		.0156					
	78	.0160	0.40		.0157		
	77	.0180	0.45		.0177		
	76	.0200	0.50		.0197		
	75	.0210	0.52		.0205		
	74	.0225	0.58		.0228		
	73	.0240	0.60		.0236		16 BA
	72	.0250	0.65		.0256		
	71	.0260	0.65		.0256		
	70	.0280	0.70		.0276		15 BA
	69	.0292	0.75		.0295		
	68	.0310		1/32	.0312		14 BA
1/32		.0312					
	67	.0320	0.82		.0323		
	66	.0330	0.85		.0335		
	65	.0350	0.90		.0354		
	64	.0360	0.92		.0362		
	63	.0370	0.95		.0374		
			0.975		.0384		13 BA
	62	.0380	0.98		.0386		
	61	.0390	1.00		.0394		
	60	.0400	1.00		.0394		
	59	.0410	1.05		.0413		12 BA
	58	.0420	1.05		.0413		
	57	.0430	1.10		.0433		
	56	.0465		3/64	.0469	0-80	
3/64		.0469					
			1.20		.0472		11 BA
	55	.0520	1.30		.0512		
	54	.0550	1.40		.0551		10 BA
			1.45		.0571	1-64	
	53	.0595	1.50		.0591	1-72	
			1.55		.0610		9 BA
1/16		.0625					
	52	.0635	1.60		.0630		
	51	.0670	1.70		.0669	2-56	
			1.75		.0689	2-64	
	50	.0700	1.80		.0709		8 BA
	49	.0730	1.85		.0728		
	48	.0760	1.95		.0768	3-48	
5/64		.0781					
	47	.0785	2.00		.0787		
	46	.0810	2.05		.0807	3-56	7 BA
	45	.0820	2.10		.0827		
	44	.0860	2.20		.0866	4-40	
	43	.0890	2.25		.0886		
			2.30		.0906	4-48	6 BA
	42	.0935		3/32	.0938		
3/32		.0938					
	41	.0960	2.45		.0965		
	40	.0980	2.50		.0984	5-40	
	39	.0995	2.55		.1004	5-44	1/8 BSW
	38	.1015	2.60		.1024		
	37	.1040	2.65		.1043		5 BA
	36	.1065	2.70		.1063	6-32	
7/64		.1094					
	35	.1100	2.80		.1102		
	34	.1110	2.80		.1102		

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FRACTION (in.)	OLD DRILL GAUGE	DEC. EQUIV. (in.)	BRITISH STANDARD (International) SERIES New Size (mm)	New Size (in.)	Dec. Equiv.	UNF UNC	BA BSW BSF
	33	.1130	2.85		.1122	6-40	
	32	.1160	2.95		.1161		
	31	.1200	3.00		.1181		4 BA
18		.1250					
	30	.1285	3.30		.1299		
			3.40		.1339	8-32	
			3.45		.1358	8-36	3 BA
	29	.1360	3.50		.1378		
	28	.1405		9/64	.1406		
9/64		.1406					
	27	.1440	3.70		.1457		3/16 BSW
	26	.1470	3.70		.1457		
	25	.1495	3.80		.1496	10-24	
	24	.1520	3.90		.1535		
	23	.1540	3.90		.1535		
5/32		.1562			.1562		3/16 BSF
	22	.1570	4.00		.1575	10-32	2 BA
	21	.1590	4.00		.1575		
	20	.1610	4.10		.1614		
	19	.1660	4.20		.1654		
	18	.1695	4.30		.1693		
11/64		.1719					
	17	.1730	4.40		.1732	12-24	
	16	.1770	4.50		.1772		1 BA
	15	.1800	4.60		.1811	12-28	
	14	.1820	4.60		.1811		
			4.65		.1831		7/32 BSF
	13	.1850	4.70		.1850		
3/16		.1875					
	12	.1890	4.80		.1890		
	11	.1910	4.90		.1929		
	10	.1935	4.90		.1929		
	9	.1960	5.00		.1968		
	8	.1990	5.10		.2008		0 BA
	7	.2010	5.10		.2008		1/4 BSW
13/64		.2031					
	6	.2040	5.20		.2047	1/4-20	
	5	.2055	5.20		.2047		
	4	.2090	5.30		.2087		1/4 BSF
	3	.2130	5.40		.2126		
			5.50		.2165	1/4-28	
7/32		.2188					
	2	.2210	5.60		.2205		
	1	.2280	5.80		.2283		
	A	.2340		15/64	.2344		
15/64		.2344					
	B	.2380	6.00		.2362		
	C	.2420	6.10		.2402		
	D	.2460	6.20		.2441		
1/4	E	.2500		1/4	.2500		
	F	.2570	6.50		.2559		5/16 BSW
	G	.2610	6.60		.2598	5/16-18	
17/64		.2656					
	H	.2660		17/64	.2656		
			6.75		.2657		5/16 BSF
	I	.2720	6.90		.2717	5/16-24	
	J	.2770	7.00		.2756		
	K	.2810		9/32	.2812		
9/32		.2812					
	L	.2900	7.40		.2913		

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FRACTION (in.)	OLD DRILL GAUGE	DEC. EQUIV. (in.)	BRITISH STANDARD (International) SERIES New Size (mm)	New Size (in.)	Dec. Equiv.	UNF UNC	BA BSW BSF
	M	.2950	7.50		.2953		
19/64		.2969					
	N	.3020	7.70		.3031		
5/16		.3125			.3125		3/8 BSW
	O	.3160	8.00		.3150	3/8-16	
	P	.3230	8.20		.3228		
			8.25		.3248		3/8 BSF
21/64		.3281					
	Q	.3320	8.40		.3307		
			8.50		.3346	3/8-24	
	R	.3390	8.60		.3386		
11/32		.3438					
	S	.3480	8.80		.3465		
	T	.3580	9.10		.3583		
23/64		.3594					
			9.25		.3642		7/16 BSW
	U	.3680	9.30		.3661		
			9.40		.3701	7/16-14	
3/8		.3750					
	V	.3770		3/8	.3750		
			9.70		.3819		7/16 BSF
	W	.3860	9.80		.3858		
			9.90		.3898	7/16-20	
25/64		.3906					
	X	.3970	10.10		.3976		
	Y	.4040	10.30		.4055		
13/32		.4062					
	Z	.4130	10.50		.4134		1/2 BSW
27/64		.4219					
			10.80		.4252	1/2-13	
7/16		.4375			.4375		1/2 BSF
		.4488	11.40		.4488	1/2-20	
29/64		.4531					
15/32		.4688					
		.4764	12.10		.4764		9/16 BSW
		.4823	12.25		.4823	9/16-12	
31/64		.4844					
1/2		.5000			.5000		9/16 BSF
			12.90		.5079	9/16-18	
33/64		.5156					
17/32		.5312					
			13.50		.5315	5/8-11	5/8 BSW
35/64		.5469					
			14.00		.5512		5/8 BSF
9/16		.5625					
			14.50		.5709	5/8-18	
37/64		.5781					
19/32		.5938					
39/64		.6094					
5/8		.6250					
41/64		.6406			.6406		3/4 BSW
			16.50		.6496	3/4-10	
21/32		.6562					
			16.75		.6594		3/4 BSF
43/64		.6719					
11/16		.6875			.6875	3/4-16	
45/64		.7031					
23/32		.7188					
47/64		.7344					
3/4		.7500					

FRACTION, GAUGE & LETTER DRILL SIZES			TAPPING DRILL			THREAD	
FRACTION (in.)	OLD DRILL GAUGE	DEC. EQUIV. (in.)	BRITISH STANDARD (International) SERIES New Size (mm)	New Size (in.)	Dec. Equiv.	UNF UNC	BA BSW BSF
			19.25		.7579		7/8 BSW
49/64		.7656			.7656	7/8-9	
25/32		.7812			.7812		7/8 BSF
51/64		.7969					
		.8040			.8040	7/8-14	
13/16		.8125					
53/64		.8281					
27/32		.8438					
55/64		.8594					
			22.00		.8661		1 BSW
7/8		.8750					
			22.25		.8760	1-8	
57/64		.8906					
			22.75		.8957		1 BSF
29/32		.9062					
			23.25		.9154	1-12	
59/64		.9219					
15/16		.9375					
61/64		.9531					
31/32		.9688					
			24.75		.9744		1 1/8 BSW
63/64		.9844			.9844	1 1/8-7	
1		1.0000					
			25.50		1.0039		1 1/8 BSF
			26.50		1.0433	1 1/8-12	
1 3/32		1.0938			1.0938		1 1/4 BSW
1 7/64		1.1094			1.1094	1 1/4-7	
1 1/8		1.1250					
			28.75		1.1319		1 1/4 BSF
			29.50		1.1614	1 1/4-12	
			30.75		1.2106	1 3/8-6	
			31.50		1.2402		1 3/8 BSF
1 1/4		1.2500					
		1.2900			1.2900	1 3/8-12	
			33.50		1.3189		1 1/2 BSW
1 21/64		1.3281			1.3281	1 1/2-6	
1 23/64		1.3594			1.3594		1 1/2 BSF
1 3/8		1.3750					
			36.00		1.4173	1 1/2-12	
1 1/2		1.5000					
			39.00		1.5354		1 3/4 BSW
1 35/64		1.5469			1.5469	1 3/4-5	
1 5/8		1.6250					
1 3/4		1.7500					
			44.50		1.7520		2 BSW
1 25/32		1.7812			1.7812	2-4.5	

BRITISH STANDARD PIPE THREADS

THREAD	TAPPING DRILL (mm)	TAPPING DRILL (in.)	DECIMAL EQUIVALENT (in.)	THREAD	TAPPING DRILL (mm)	TAPPING DRILL (in.)	DECIMAL EQUIVALENT (in.)
1/8-28	8.75		.3455	7/8-14	28.25		1.1122
1/4-19	11.80		.4646	1-11	30.75		1.2106
3/8-19	15.25		.6004	1 1/4-11	39.50		1.5551
1/2-14		3/4	.7500	1 1/2-11		1 25/32	1.7812
5/8-14		53/64	.8281	1 3/4-11	51.00		2.0079
3/4-14	24.50		9646	2-11		2 1/4	2.2500

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