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DRILL AND TAPPING CHART

METRIC ISO COARSE

60° thread form

Size mm	Pitch mm	TAPPING DRILL SIZES			
		PREFERRED		ALTERNATIVE	
		mm	inch	mm	inch
2.0	0.40	1.65		1.6	1/16
2.5	0.45	2.1		2.05	
3.0	0.50	2.55		2.5	
3.5	0.60	2.95		2.9	
4.0	0.70	3.4		3.3	
4.5	0.75	3.8		3.7	
5.0	0.80	4.3	11/64	4.2	
6.0	1.00	5.1	13/64	5.0	
7.0	1.00	6.1		6.0	15/64
8.0	1.25	6.9		6.8	17/64
9.0	1.25	7.9	5/16	7.8	
10.0	1.50	8.6	11/32	8.5	
11.0	1.50			9.5	3/8
12.0	1.75		13/32	10.2	
14.0	2.00	12.2	31/64	12.0	15/32
16.0	2.00	14.25	9/16	14.0	35/64
18.0	2.50	15.75		15.5	39/64
20.0	2.50		45/64	17.5	11/16
22.0	2.50		25/32	19.5	49/64
24.0	3.00			21.0	53/64
27.0	3.00		61/64	24.0	15/16
30.0	3.50			26.5	1-3/64
33.0	3.50		1-11/64	29.5	1-5/32
36.0	4.0		1-17/64	32.0	1-1/4

UNF UNS*

60° thread form

Size inch	Threads per inch	TAPPING DRILL SIZES			
		PREFERRED		ALTERNATIVE	
		mm	inch	mm	inch
No. 5	44	2.7		2.65	
No. 6	40	2.95		2.9	
No. 8	36	3.6	9/64	3.5	
No. 10	32	4.1		4.0	5/32
No. 12	28	4.7		4.6	
1/8"	40	2.65		2.6	
5/32"	32	3.3		3.1	1/8
3/16"	32	4.1		3.9	5/32
7/32"	32	4.9		4.8	3/16
1/4"	28	5.5	7/32	5.4	
5/16"	24	6.9		6.8	
3/8"	24	8.5		8.4	
7/16"	20	10.0	25/64	9.8	
1/2"	20	11.5	29/64		
9/16"	18		33/64	12.8	
5/8"	18	14.5	37/64		
11/16"	16	16.0	5/8	15.75	
3/4"	16	17.5	11/16		
13/16"	16		3/4	19.0	
7/8"	14		13/16	20.5	
1"	12	23.5	59/64		
1-1/8"	12		15/16	23.5	
1-1/4"	12	26.5	1-3/64		
1-3/8"	12		1-11/64	29.5	
1-1/2"	12	33.0	1-19/64		
		36.0	1-27/64		

METRIC ISO FINE

60° thread form

Size mm	Pitch mm	TAPPING DRILL SIZES			
		PREFERRED		ALTERNATIVE	
		mm	inch	mm	inch
8.0	1.00	7.1	9/32	7.0	
10.0	1.25	8.9		8.8	11/32
12.0	1.50		27/64	10.5	
14.0	1.50		1/2	12.5	
16.0	1.50	14.75	37/64	14.5	
18.0	1.50		21/32	16.5	
20.0	1.50		47/64	18.5	
22.0	1.50		13/16	20.5	
24.0	2.00		7/8	22.0	

UNC UNS*

60° thread form

Size inch	Threads per inch	TAPPING DRILL SIZES			
		PREFERRED		ALTERNATIVE	
		mm	inch	mm	inch
No. 2	56	1.85		1.8	
No. 3	48	2.1		2.05	5/64
No. 4	40	2.35	3/32	2.3	
No. 5	40	2.65		2.6	
No. 6	32	2.85		2.8	7/64
No. 8	32	3.5		3.4	
No. 10	24	3.9	5/32	3.8	
No. 12	24	4.5		4.4	11/64
1/8"	40	2.65		2.6	
5/32"	32	3.3		3.1	1/8
3/16"	24	3.8		3.7	
7/32"	24	4.6		4.5	
1/4"	20	5.2	13/64	5.1	
5/16"	18	6.6	17/64	6.5	1/4
3/8"	16	8.1		8.0	5/16
7/16"	14	9.5	3/8		23/64
1/2"	13	11.0		10.8	27/64
9/16"	12	12.2	31/64		
5/8"	11	13.8	35/64	13.5	17/32
11/16"	11	15.25		15.0	19/32
3/4"	10		21/32	16.5	41/64
13/64"	10		23/32	18.0	
7/8"	9	19.5	49/64		
1"	8		7/8	22.5	
1-1/8"	7			25.0	63/64
1-1/4"	7		1-7/64	28.0	
1-3/8"	6	31.0	1-7/32		1-13/64
1-1/2"	6		1-11/32	34.0	1-21/64

BSW WHITWORTH*

55° thread form

Size inch	Threads per inch	TAPPING DRILL SIZES			
		PREFERRED		ALTERNATIVE	
		mm	inch	mm	inch
1/16"	60	1.2	3/64	1.05	
3/32"	48	1.9		1.75	
1/8"	40	2.55		2.5	3/32
5/32"	32	3.2	1/8	2.95	
3/16"	24	3.7		3.6	9/64
7/32"	24	4.5		4.3	11/64
1/4"	20	5.1		5.0	3/16
5/16"	18	6.5		6.4	1/4
3/8"	16	7.9	5/16	7.8	19/64
7/16"	14	9.5		9.2	23/64
1/2"	12	10.5		10.3	13/32
9/16"	12			12.0	15/32
5/8"	11	13.5	17/32		33/64
3/4"	10	16.5	41/64	16.0	5/8
7/8"	9		3/4	19.0	47/64
1"	8	22.0	55/64		27/32
1-1/8"	7		31/32	24.5	61/64
1-1/4"	7	28.0	1-3/32	27.5	1-5/64
1-1/2"	6	33.5	1-5/16	33.0	1-19/64
1-3/4"	5	39.0	1-17/32	38.5	1-33/64
2"	4-1/2	44.5	1-49/64	44.0	1-3/4



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DRILL AND TAPPING CHART

BSF 55° thread form

Size inch	Threads per inch	TAPPING DRILL SIZES			
		PREFERRED		ALTERNATIVE	
		mm	inch	mm	inch
3/16	32	4.0	5/32	3.9	
1/4	26	5.3		5.2	13/64
5/16	22	6.8	17/64	6.7	
3/8	20	8.3	21/64	8.2	5/16
7/16	18			9.5	3/8
1/2	16		7/16	11.0	27/64
9/16	16		1/2	12.5	31/64
5/8	14	14.0	35/64	13.8	17/32
3/4	12			16.5	21/32
7/8	11		25/32	19.5	49/64
1	10		57/64	22.5	7/8
1-1/4	9	28.5	1-1/8		1-7/64
1-1/2	8	34.5	1-23/64		1-11/32
1-3/4	7	40.5	1-19/32	40.0	1-37/64

BA 47.5° thread form

Size	Pitch mm	TAPPING DRILL SIZES			
		PREFERRED		ALTERNATIVE	
		mm	inch	mm	inch
0	1.00	5.1	13/64	5.0	
1	.090	4.5		4.4	11/64
2	0.81	4.0	5/32	3.9	
3	0.73	3.4		3.3	
4	0.66	3.0		2.95	
5	0.59	2.7		2.6	
6	0.53	2.35		2.25	
7	0.48	2.1		2.0	5/64
8	0.43	1.8		1.75	
9	0.39	1.55		1.5	
10	0.35	1.4		1.35	
11	0.31	1.2	3/64	1.15	
12	0.28	1.05		1.0	

Metric Conduit 60° thread form

Size mm	Pitch mm	TAPPING DRILL SIZES			
		PREFERRED		ALTERNATIVE	
		mm	inch	mm	inch
16	1.5	14.75	37/64	14.5	
20	1.5		47/64	18.5	
25	1.5			23.5	59/64
32	1.5		1-13/64	30.5	
40	1.5			38.5	1-33/64
50	1.5			48.5	1-29/32

BS Conduit 55° thread form

Size inch	Threads per inch	TAPPING DRILL SIZES			
		PREFERRED		ALTERNATIVE	
		mm	inch	mm	inch
5/8	18			14.25	9/16
3/4	16			17.0	43/64
1	16			23.5	59/64
1-1/4	16			30.0	1-11/64
1-1/2	14			36.0	
2	14			48.5	

Spark Plug 60° thread form

Size mm	Pitch mm	TAPPING DRILL SIZES			
		PREFERRED		ALTERNATIVE	
		mm	inch	mm	inch
10.0	1.00		23/64	9.0	
12.0	1.25	10.5			13/32
14.0	1.25	12.5			
18.0	1.50		41/64		

NPT (Taper Pipe) 60° thread form

Size inch	Thread per inch	TAPPING DRILL SIZES			
		WITH REAMER		WITHOUT REAMER	
		mm	inch	mm	inch
1/8	27	8.3	21/64	8.4	
1/4	18	10.8	27/64	11.2	7/16
3/8	18	14.25	9/16	14.25	9/16
1/2	14	17.5	11/16		45/64
3/4	14	22.5	57/64	23.0	29/32
1	11-1/2	28.5	1-1/8	29.0	1-9/64
1-1/4	11-1/2	37.0	1-15/32	37.5	1-31/64
1-1/2	11-1/2	43.5	1-23/32	44.0	1-47/64
2	11-1/2		2-3/16		2-13/64

NPS (Parallel Pipe) 60° thread form

Size inch	Threads per inch	TAPPING DRILL SIZES			
		NPSC		NPSM	
		mm	inch	mm	inch
1/8	27	8.7	11/32	9.2	23/64
1/4	18	11.2	7/16	12.0	15/32
3/8	18	14.75	37/64	15.5	39/64
1/2	14	18.0	23/32	19.0	3/4

NPSC – Pressure tight coupling thread. NPSM – Mechanical fastening thread

Brass 55° thread form

Size inch	Threads per inch	TAPPING DRILL SIZES			
		PREFERRED		ALTERNATIVE	
		mm	inch	mm	inch
1/4	26	5.3		5.2	13/64
5/16	26	6.9		6.8	17/64
3/8	26	8.5		8.4	21/64
7/16	26	10.2		10.0	25/64
1/2	26	11.8		11.5	29/64
9/16	26	13.2			33/64
5/8	26			14.75	37/64
3/4	26	18.0			45/64
7/8	26			21.0	53/64
1	26	24.5			61/64

BSPT (Taper Pipe) 55° thread form

Size inch	Thread per inch	TAPPING DRILL SIZES			
		WITH REAMER		WITHOUT REAMER	
		mm	inch	mm	inch
1/8	28	8.0	5/16	8.4	21/64
1/4	19	10.8	27/64	11.2	7/16
3/8	19	14.25	9/16	14.75	37/64
1/2	14		45/64		23/32
3/4	14	23.0	29/32		15/16
1	11	29.0	1-9/64	30.0	1-11/64
1-1/4	11	37.5	1-15/32	38.5	1-33/64
1-1/2	11	43.5	1-23/32	44.5	1-3/4
2	11		2-5/32		2-3/16

BSPF (Parallel Pipe) 55° thread form

Size inch	Threads per inch	TAPPING DRILL SIZES			
		PREFERRED		ALTERNATIVE	
		mm	inch	mm	inch
1/8	28	8.8		8.7	11/32
1/4	19	11.8	15/32	11.5	29/64
3/8	19	15.25		15.0	19/32
1/2	14	19.0	3/4		47/64
5/8	14	21.0	53/64		13/16
3/4	14	24.5	31/32		61/64
7/8	14		1-7/64	28.0	
1	11		1-7/32	30.5	
1-1/4	11	39.5	1-35/64	39.0	
1-1/2	11	45.5	1-25/32	46.0	1-49/64
2	11		2-1/4		
2-1/2	11		2-27/32		
3	11				

Hole size 3.369 – 3.344 inch