

Drill Size for Thread Forming

DRILL SIZE FOR THREAD FORMING @ 55% THREAD

Metric Threads			Metric Threads			UNC / UNF Threads		
Tap Dia.	Pitch (mm)	Drill size (mm)	Tap Dia.	Pitch (mm)	Drill size (mm)	Tap Size	TPI	Drill size (mm)
M 1	0.25	0.91	M 10	1.25	9.53	4	40	2.61
M 1.1	0.25	1.01	M 10	1.50	9.44	4	48	2.65
M 1.2	0.25	1.11	M 11	0.75	10.72	5	40	2.94
M 1.4	0.30	1.29	M 11	1.00	10.63	5	44	2.96
M 1.6	0.35	1.47	M 11	1.50	10.44	6	32	3.21
M 1.7	0.35	1.57	M 12	1.00	11.63	6	40	3.27
M 1.8	0.35	1.67	M 12	1.25	11.53	8	32	3.87
M 2	0.40	1.85	M 12	1.50	11.44	8	36	3.90
M 2.2	0.45	2.03	M 12	1.75	11.35	10	24	4.43
M 2.3	0.40	2.15	M 14	1.00	13.63	10	32	4.53
M 2.6	0.45	2.43	M 14	1.25	13.53	12	24	5.09
M 3	0.50	2.81	M 14	1.50	13.44	12	28	5.15
M 3.5	0.60	3.28	M 14	2.00	13.25	1/4	20	5.88
M 4	0.70	3.74	M 15	1.00	14.63	1/4	28	6.01
M 4.5	0.75	4.22	M 15	1.50	14.44	5/16	18	7.41
M 5	0.50	4.81	M 16	1.00	15.63	5/16	24	7.54
M 5	0.80	4.70	M 16	1.50	15.44	3/8	16	8.93
M 5.5	0.50	5.31	M 16	2.00	15.25	3/8	24	9.13
M 6	0.75	5.72	M 17	1.00	16.63	7/16	14	10.43
M 6	1.00	5.63	M 17	1.50	16.44	7/16	20	10.64
M 7	0.75	6.72	M 18	1.00	17.63	1/2	13	11.97
M 7	1.00	6.63	M 18	1.50	17.44	1/2	20	12.23
M 8	0.75	7.72	M 18	2.00	17.25	9/16	12	13.50
M 8	1.00	7.63	M 18	2.50	17.07	9/16	18	13.76
M 8	1.25	7.53	M 20	1.00	19.63	5/8	11	15.01
M 9	0.75	8.72	M 20	2.50	19.07	5/8	18	15.35
M 9	1.00	8.63				3/4	10	18.10
M 9	1.25	8.53				3/4	16	18.46
M 10	0.75	9.72				7/8	14	21.55
M 10	1.00	9.63				1	12	24.61

DRILL SIZE FOR THREAD FORMING @ 57.5% THREAD

Metric Threads			Metric Threads			UNC / UNF Threads		
Tap Dia.	Pitch (mm)	Drill size (mm)	Tap Dia.	Pitch (mm)	Drill size (mm)	Tap Size	TPI	Drill size (mm)
M 1	0.25	0.90	M 10	1.25	9.51	4	40	2.60
M 1.1	0.25	1.00	M 10	1.50	9.41	4	48	2.64
M 1.2	0.25	1.10	M 11	0.75	10.71	5	40	2.93
M 1.4	0.30	1.28	M 11	1.00	10.61	5	44	2.95
M 1.6	0.35	1.46	M 11	1.50	10.41	6	32	3.19
M 1.7	0.35	1.56	M 12	1.00	11.61	6	40	3.26
M 1.8	0.35	1.66	M 12	1.25	11.51	8	32	3.86
M 2	0.40	1.84	M 12	1.50	11.41	8	36	3.89
M 2.2	0.45	2.02	M 12	1.75	11.32	10	24	4.41
M 2.3	0.40	2.14	M 14	1.00	13.61	10	32	4.52
M 2.6	0.45	2.42	M 14	1.25	13.51	12	24	5.07
M 3	0.50	2.80	M 14	1.50	13.41	12	28	5.13
M 3.5	0.60	3.27	M 14	2.00	13.22	1/4	20	5.85
M 4	0.70	3.73	M 15	1.00	14.61	1/4	28	6.00
M 4.5	0.75	4.21	M 15	1.50	14.41	5/16	18	7.39
M 5	0.50	4.80	M 16	1.00	15.61	5/16	24	7.52
M 5	0.80	4.69	M 16	1.50	15.41	3/8	16	8.90
M 5.5	0.50	5.30	M 16	2.00	15.22	3/8	24	9.11
M 6	0.75	5.71	M 17	1.00	16.61	7/16	14	10.40
M 6	1.00	5.61	M 17	1.50	16.41	7/16	20	10.62
M 7	0.75	6.71	M 18	1.00	17.61	1/2	13	11.94
M 7	1.00	6.61	M 18	1.50	17.41	1/2	20	12.20
M 8	0.75	7.71	M 18	2.00	17.22	9/16	12	13.46
M 8	1.00	7.61	M 18	2.50	17.02	9/16	18	13.74
M 8	1.25	7.51	M 20	1.00	19.61	5/8	11	14.97
M 9	0.75	8.71	M 20	2.50	19.02	5/8	18	15.32
M 9	1.00	8.61				3/4	10	18.06
M 9	1.25	8.51				3/4	16	18.43
M 10	0.75	9.71				7/8	14	21.52
M 10	1.00	9.61				1	12	24.57

DRILL SIZE FOR THREAD FORMING @ 60% THREAD

Metric Threads			Metric Threads			UNC / UNF Threads		
Tap Dia.	Pitch (mm)	Drill size (mm)	Tap Dia.	Pitch (mm)	Drill size (mm)	Tap Size	TPI	Drill size (mm)
M 1	0.25	0.90	M 10	1.25	9.49	4	40	2.59
M 1.1	0.25	1.00	M 10	1.50	9.39	4	48	2.63
M 1.2	0.25	1.10	M 11	0.75	10.69	5	40	2.92
M 1.4	0.30	1.28	M 11	1.00	10.59	5	44	2.94
M 1.6	0.35	1.46	M 11	1.50	10.39	6	32	3.18
M 1.7	0.35	1.56	M 12	1.00	11.59	6	40	3.25
M 1.8	0.35	1.66	M 12	1.25	11.49	8	32	3.84
M 2	0.40	1.84	M 12	1.50	11.39	8	36	3.88
M 2.2	0.45	2.02	M 12	1.75	11.29	10	24	4.39
M 2.3	0.40	2.14	M 14	1.00	13.59	10	32	4.50
M 2.6	0.45	2.42	M 14	1.25	13.49	12	24	5.05
M 3	0.50	2.80	M 14	1.50	13.39	12	28	5.12
M 3.5	0.60	3.26	M 14	2.00	13.18	1/4	20	5.83
M 4	0.70	3.71	M 15	1.00	14.59	1/4	28	5.98
M 4.5	0.75	4.19	M 15	1.50	14.39	5/16	18	7.36
M 5	0.50	4.80	M 16	1.00	15.59	5/16	24	7.51
M 5	0.80	4.67	M 16	1.50	15.39	3/8	16	8.88
M 5.5	0.50	5.30	M 16	2.00	15.18	3/8	24	9.09
M 6	0.75	5.69	M 17	1.00	16.59	7/16	14	10.37
M 6	1.00	5.59	M 17	1.50	16.39	7/16	20	10.59
M 7	0.75	6.69	M 18	1.00	17.59	1/2	13	11.90
M 7	1.00	6.59	M 18	1.50	17.39	1/2	20	12.18
M 8	0.75	7.69	M 18	2.00	17.18	9/16	12	13.42
M 8	1.00	7.59	M 18	2.50	16.98	9/16	18	13.71
M 8	1.25	7.49	M 20	1.00	19.59	5/8	11	14.93
M 9	0.75	8.69	M 20	2.50	18.98	5/8	18	15.30
M 9	1.00	8.59				3/4	10	18.01
M 9	1.25	8.49				3/4	16	18.40
M 10	0.75	9.69				7/8	14	21.48
M 10	1.00	9.59				1	12	24.54

DRILL SIZE FOR THREAD FORMING @ 62.5% THREAD

Metric Threads			Metric Threads			UNC / UNF Threads		
Tap Dia.	Pitch (mm)	Drill size (mm)	Tap Dia.	Pitch (mm)	Drill size (mm)	Tap Size	TPI	Drill size (mm)
M 1	0.25	0.89	M 10	1.25	9.47	4	40	2.57
M 1.1	0.25	0.99	M 10	1.50	9.36	4	48	2.62
M 1.2	0.25	1.09	M 11	0.75	10.68	5	40	2.91
M 1.4	0.30	1.27	M 11	1.00	10.58	5	44	2.93
M 1.6	0.35	1.45	M 11	1.50	10.36	6	32	3.17
M 1.7	0.35	1.55	M 12	1.00	11.58	6	40	3.24
M 1.8	0.35	1.65	M 12	1.25	11.47	8	32	3.83
M 2	0.40	1.83	M 12	1.50	11.36	8	36	3.87
M 2.2	0.45	2.01	M 12	1.75	11.26	10	24	4.38
M 2.3	0.40	2.13	M 14	1.00	13.58	10	32	4.49
M 2.6	0.45	2.41	M 14	1.25	13.47	12	24	5.04
M 3	0.50	2.79	M 14	1.50	13.36	12	28	5.10
M 3.5	0.60	3.25	M 14	2.00	13.15	1/4	20	5.81
M 4	0.70	3.70	M 15	1.00	14.58	1/4	28	5.96
M 4.5	0.75	4.18	M 15	1.50	14.36	5/16	18	7.34
M 5	0.50	4.79	M 16	1.00	15.58	5/16	24	7.49
M 5	0.80	4.66	M 16	1.50	15.36	3/8	16	8.85
M 5.5	0.50	5.29	M 16	2.00	15.15	3/8	24	9.08
M 6	0.75	5.68	M 17	1.00	16.58	7/16	14	10.34
M 6	1.00	5.58	M 17	1.50	16.36	7/16	20	10.57
M 7	0.75	6.68	M 18	1.00	17.58	1/2	13	11.87
M 7	1.00	6.58	M 18	1.50	17.36	1/2	20	12.16
M 8	0.75	7.68	M 18	2.00	17.15	9/16	12	13.39
M 8	1.00	7.58	M 18	2.50	16.94	9/16	18	13.69
M 8	1.25	7.47	M 20	1.00	19.58	5/8	11	14.89
M 9	0.75	8.68	M 20	2.50	18.94	5/8	18	15.28
M 9	1.00	8.58				3/4	10	17.97
M 9	1.25	8.47				3/4	16	18.38
M 10	0.75	9.68				7/8	14	21.45
M 10	1.00	9.58				1	12	24.50

Technical

Drill Size for Thread Forming

DRILL SIZE FOR THREAD FORMING @ 65% THREAD								
Metric Threads			Metric Threads			UNC / UNF Threads		
Tap Dia.	Pitch (mm)	Drill size (mm)	Tap Dia.	Pitch (mm)	Drill size (mm)	Tap Size	TPI	Drill size (mm)
M 1	0.25	0.89	M 10	1.25	9.45	4	40	2.56
M 1.1	0.25	0.99	M 10	1.50	9.34	4	48	2.61
M 1.2	0.25	1.09	M 11	0.75	10.67	5	40	2.89
M 1.4	0.30	1.27	M 11	1.00	10.56	5	44	2.92
M 1.6	0.35	1.45	M 11	1.50	10.34	6	32	3.15
M 1.7	0.35	1.55	M 12	1.00	11.56	6	40	3.22
M 1.8	0.35	1.65	M 12	1.25	11.45	8	32	3.81
M 2	0.40	1.82	M 12	1.50	11.34	8	36	3.85
M 2.2	0.45	2.00	M 12	1.75	11.23	10	24	4.36
M 2.3	0.40	2.12	M 14	1.00	13.56	10	32	4.48
M 2.6	0.45	2.40	M 14	1.25	13.45	12	24	5.02
M 3	0.50	2.78	M 14	1.50	13.34	12	28	5.09
M 3.5	0.60	3.23	M 14	2.00	13.12	1/4	20	5.79
M 4	0.70	3.69	M 15	1.00	14.56	1/4	28	5.95
M 4.5	0.75	4.17	M 15	1.50	14.34	5/16	18	7.31
M 5	0.50	4.78	M 16	1.00	15.56	5/16	24	7.47
M 5	0.80	4.65	M 16	1.50	15.34	3/8	16	8.82
M 5.5	0.50	5.28	M 16	2.00	15.12	3/8	24	9.06
M 6	0.75	5.67	M 17	1.00	16.56	7/16	14	10.31
M 6	1.00	5.56	M 17	1.50	16.34	7/16	20	10.55
M 7	0.75	6.67	M 18	1.00	17.56	1/2	13	11.84
M 7	1.00	6.56	M 18	1.50	17.34	1/2	20	12.14
M 8	0.75	7.67	M 18	2.00	17.12	9/16	12	13.35
M 8	1.00	7.56	M 18	2.50	16.90	9/16	18	13.66
M 8	1.25	7.45	M 20	1.00	19.56	5/8	11	14.85
M 9	0.75	8.67	M 20	2.50	18.90	5/8	18	15.25
M 9	1.00	8.56				3/4	10	17.93
M 9	1.25	8.45				3/4	16	18.35
M 10	0.75	9.67				7/8	14	21.42
M 10	1.00	9.56				1	12	24.46

DRILL SIZE FOR THREAD FORMING @ 67.5% THREAD								
Metric Threads			Metric Threads			UNC / UNF Threads		
Tap Dia.	Pitch (mm)	Drill size (mm)	Tap Dia.	Pitch (mm)	Drill size (mm)	Tap Size	TPI	Drill size (mm)
M 1	0.25	0.89	M 10	1.25	9.43	4	40	2.55
M 1.1	0.25	0.99	M 10	1.50	9.31	4	48	2.60
M 1.2	0.25	1.09	M 11	0.75	10.66	5	40	2.88
M 1.4	0.30	1.26	M 11	1.00	10.54	5	44	2.91
M 1.6	0.35	1.44	M 11	1.50	10.31	6	32	3.14
M 1.7	0.35	1.54	M 12	1.00	11.54	6	40	3.21
M 1.8	0.35	1.64	M 12	1.25	11.43	8	32	3.80
M 2	0.40	1.82	M 12	1.50	11.31	8	36	3.84
M 2.2	0.45	1.99	M 12	1.75	11.20	10	24	4.34
M 2.3	0.40	2.12	M 14	1.00	13.54	10	32	4.46
M 2.6	0.45	2.39	M 14	1.25	13.43	12	24	5.00
M 3	0.50	2.77	M 14	1.50	13.31	12	28	5.07
M 3.5	0.60	3.22	M 14	2.00	13.08	1/4	20	5.77
M 4	0.70	3.68	M 15	1.00	14.54	1/4	28	5.93
M 4.5	0.75	4.16	M 15	1.50	14.31	5/16	18	7.29
M 5	0.50	4.77	M 16	1.00	15.54	5/16	24	7.45
M 5	0.80	4.63	M 16	1.50	15.31	3/8	16	8.80
M 5.5	0.50	5.27	M 16	2.00	15.08	3/8	24	9.04
M 6	0.75	5.66	M 17	1.00	16.54	7/16	14	10.28
M 6	1.00	5.54	M 17	1.50	16.31	7/16	20	10.53
M 7	0.75	6.66	M 18	1.00	17.54	1/2	13	11.80
M 7	1.00	6.54	M 18	1.50	17.31	1/2	20	12.12
M 8	0.75	7.66	M 18	2.00	17.08	9/16	12	13.32
M 8	1.00	7.54	M 18	2.50	16.85	9/16	18	13.64
M 8	1.25	7.43	M 20	1.00	19.54	5/8	11	14.82
M 9	0.75	8.66	M 20	2.50	18.85	5/8	18	15.23
M 9	1.00	8.54				3/4	10	17.88
M 9	1.25	8.43				3/4	16	18.32
M 10	0.75	9.66				7/8	14	21.39
M 10	1.00	9.54				1	12	24.43

DRILL SIZE FOR THREAD FORMING @ 70% THREAD								
Metric Threads			Metric Threads			UNC / UNF Threads		
Tap Dia.	Pitch (mm)	Drill size (mm)	Tap Dia.	Pitch (mm)	Drill size (mm)	Tap Size	TPI	Drill size (mm)
M 1	0.25	0.88	M 10	1.25	9.41	4	40	2.54
M 1.1	0.25	0.98	M 10	1.50	9.29	4	48	2.59
M 1.2	0.25	1.08	M 11	0.75	10.64	5	40	2.87
M 1.4	0.30	1.26	M 11	1.00	10.52	5	44	2.90
M 1.6	0.35	1.43	M 11	1.50	10.29	6	32	3.13
M 1.7	0.35	1.53	M 12	1.00	11.52	6	40	3.20
M 1.8	0.35	1.63	M 12	1.25	11.41	8	32	3.79
M 2	0.40	1.81	M 12	1.50	11.29	8	36	3.83
M 2.2	0.45	1.99	M 12	1.75	11.17	10	24	4.32
M 2.3	0.40	2.11	M 14	1.00	13.52	10	32	4.45
M 2.6	0.45	2.39	M 14	1.25	13.41	12	24	4.98
M 3	0.50	2.76	M 14	1.50	13.29	12	28	5.05
M 3.5	0.60	3.21	M 14	2.00	13.05	1/4	20	5.75
M 4	0.70	3.67	M 15	1.00	14.52	1/4	28	5.92
M 4.5	0.75	4.14	M 15	1.50	14.29	5/16	18	7.27
M 5	0.50	4.76	M 16	1.00	15.52	5/16	24	7.43
M 5	0.80	4.62	M 16	1.50	15.29	3/8	16	8.77
M 5.5	0.50	5.26	M 16	2.00	15.05	3/8	24	9.02
M 6	0.75	5.64	M 17	1.00	16.52	7/16	14	10.25
M 6	1.00	5.52	M 17	1.50	16.29	7/16	20	10.51
M 7	0.75	6.64	M 18	1.00	17.52	1/2	13	11.77
M 7	1.00	6.52	M 18	1.50	17.29	1/2	20	12.10
M 8	0.75	7.64	M 18	2.00	17.05	9/16	12	13.28
M 8	1.00	7.52	M 18	2.50	16.81	9/16	18	13.62
M 8	1.25	7.41	M 20	1.00	19.52	5/8	11	14.78
M 9	0.75	8.64	M 20	2.50	18.81	5/8	18	15.20
M 9	1.00	8.52				3/4	10	17.84
M 9	1.25	8.41				3/4	16	18.29
M 10	0.75	9.64				7/8	14	21.36
M 10	1.00	9.52				1	12	24.39

DRILL SIZE FOR THREAD FORMING @ 72.5% THREAD								
Metric Threads			Metric Threads			UNC / UNF Threads		
Tap Dia.	Pitch (mm)	Drill size (mm)	Tap Dia.	Pitch (mm)	Drill size (mm)	Tap Size	TPI	Drill size (mm)
M 1	0.25	0.88	M 10	1.25	9.38	4	40	2.53
M 1.1	0.25	0.98	M 10	1.50	9.26	4	48	2.58
M 1.2	0.25	1.08	M 11	0.75	10.63	5	40	2.86
M 1.4	0.30	1.25	M 11	1.00	10.51	5	44	2.89
M 1.6	0.35	1.43	M 11	1.50	10.26	6	32	3.11
M 1.7	0.35	1.53	M 12	1.00	11.51	6	40	3.19
M 1.8	0.35	1.63	M 12	1.25	11.38	8	32	3.77
M 2	0.40	1.80	M 12	1.50	11.26	8	36	3.82
M 2.2	0.45	1.98	M 12	1.75	11.14	10	24	4.30
M 2.3	0.40	2.10	M 14	1.00	13.51	10	32	4.43
M 2.6	0.45	2.38	M 14	1.25	13.38	12	24	4.96
M 3	0.50	2.75	M 14	1.50	13.26	12	28	5.04
M 3.5	0.60	3.20	M 14	2.00	13.01	1/4	20	5.72
M 4	0.70	3.65	M 15	1.00	14.51	1/4	28	5.90
M 4.5	0.75	4.13	M 15	1.50	14.26	5/16	18	7.24
M 5	0.50	4.75	M 16	1.00	15.51	5/16	24	7.42
M 5	0.80	4.61	M 16	1.50	15.26	3/8	16	8.74
M 5.5	0.50	5.25	M 16	2.00	15.01	3/8	24	9.00
M 6	0.75	5.63	M 17	1.00	16.51	7/16	14	10.22
M 6	1.00	5.51	M 17	1.50	16.26	7/16	20	10.49
M 7	0.75	6.63	M 18	1.00	17.51	1/2	13	11.74
M 7	1.00	6.51	M 18	1.50	17.26	1/2	20	12.07
M 8	0.75	7.63	M 18	2.00	17.01	9/16	12	13.24
M 8	1.00	7.51	M 18	2.50	16.77	9/16	18	13.59
M 8	1.25	7.38	M 20	1.00	19.51	5/8	11	14.74
M 9	0.75	8.63	M 20	2.50	18.77	5/8	18	15.18
M 9	1.00	8.51				3/4	10	17.80
M 9	1.25	8.38				3/4	16	18.27
M 10	0.75	9.63				7/8	14	21.33
M 10	1.00	9.51				1	12	24.36