

Heli-Coil drilling data - inch

INCH - DRILLED HOLE DIMENSIONS

Nominal Thread size	Suggested Drill Size	
	Aluminum	Steel, Magnesium, Plastic
UNIFIED COARSE		
1 (.073)-64	#47 (.0785)	#46 (.0810)
2 (.086)-56	3/32 (.0938)	#41 (.0960)
3 (.099)-48	#36 (.1065)	7/64 (.1094)
4 (.112)-40	#31 (.1200)	#31 (.1200)
5 (.125)-40	3.4mm (.1339)	#29 (.1360)
6 (.138)-32	#26 (.1470)	#25 (.1495)
8 (.164)-32	#17 (.1730)	#16 (.1770)
10 (.190)-24	13/64 (.2031)	#5 (.2055)
12 (.216)-24	#1 (.2280)	#1 (.2280)
1/4 (.2500)-20	H (.2660)	H (.2660)
5/16 (.3125)-18	Q (.3320)	Q (.3320)
3/8 (.3750)-16	X (.3970)	X (.3970)
7/16 (.4375)-14	29/64 (.4531)	29/64 (.4531)
1/2 (.5000)-13	33/64 (.5156)	17/32 (.5312)
9/16 (.5625)-12	37/64 (.5781)	19/32 (.5938)
5/8 (.6250)-11	21/32 (.6562)	21/32 (.6562)
3/4 (.7500)-10	25/32 (.7812)	25/32 (.7812)
7/8 (.8750)-9	29/32 (.9062)	29/32 (.9062)
1 (1.000)-8	1-1/32 (1.0312)	1-1/32 (1.0312)
1-1/8 (1.1250)-7	1-11/64 (1.1719)	1-11/64 (1.1719)
1-1/4 (1.2500)-7	1-19/64 (1.2969)	1-19/64 (1.2969)
1-3/8 (1.3750)-6	1-27/64 (1.4219)	1-27/64 (1.4219)
1-1/2 (1.5000)-6	1-35/64 (1.5469)	1-35/64 (1.5469)
UNIFIED FINE		
2 (.086)-64	2.35mm (.0925)	2.35mm (.0925)
3 (.099)-56	#37 (.1040)	#36 (.1065)
4 (.112)-48	3mm (.1181)	#31 (.1200)
6 (.138)-40	#26 (.1470)	#25 (.1495)
8 (.164)-36	#17 (.1730)	#16 (.1770)
10 (.190)-32	#7 (.2010)	13/64 (.2031)
1/4 (.2500)-28	G (.2610)	6.7mm (.2638)
5/16 (.3125)-24	21/64 (.3281)	21/64 (.3281)
3/8 (.3750)-24	25/64 (.3906)	25/64 (.3906)
7/16 (.4375)-20	29/64 (.4531)	29/64 (.4531)
1/2 (.5000)-20	33/64 (.5156)	33/64 (.5156)
9/16 (.5625)-18	37/64 (.5781)	37/64 (.5781)
5/8 (.6250)-18	41/64 (.6406)	41/64 (.6406)
3/4 (.7500)-16	49/64 (.7656)	49/64 (.7656)
7/8 (.8750)-14	57/64 (.8906)	57/64 (.8906)
1 (1.000)-14	1-1/64 (1.0156)	1-1/32 (1.0312)
1 (1.000)-12	1-1/64 (1.0156)	1-1/32 (1.0312)
1-1/8 (1.1250)-12	1-9/64 (1.1406)	1-5/32 (1.1562)
1-1/4 (1.2500)-12	1-17/64 (1.2656)	1-9/32 (1.2812)
1-3/8 (1.3750)-12	1-25/64 (1.3906)	1-13/32 (1.4062)
1-1/2 (1.5000)-12	1-33/64 (1.5156)	1-17/32 (1.5312)

Heli-Coil thread data - inch

Nominal Thread Size	Pitch Diameter			Minor Diameter		Max. Major Diameter	Thread Pitch
	Min.	3B Max.	2B Max.	Min.	Max.		
UNIFIED COARSE							
1 (.073)-64	.0832	.0843	.0850	.0764	.0823	.0958	.01563
2 (.086)-56	.0976	.0989	.0996	.0899	.0961	.1117	.01786
3 (.099)-48	.1126	.1140	.1148	.1036	.1104	.1289	.02083
4 (.112)-40	.1283	.1299	.1308	.1175	.1252	.1473	.02500
5 (.125)-40	.1413	.1430	.1438	.1305	.1373	.1603	.02500
6 (.138)-32	.1583	.1601	.1611	.1448	.1527	.1817	.03125
8 (.164)-32	.1843	.1862	.1872	.1708	.1781	.2077	.03125
10 (.190)-24	.2170	.2192	.2203	.1990	.2080	.2475	.04167
12 (.216)-24	.2430	.2453	.2464	.2250	.2340	.2735	.04167
1/4 (.2500)-20	.2825	.2851	.2864	.2608	.2704	.3187	.05000
5/16 (.3125)-18	.3486	.3515	.3529	.3245	.3342	.3884	.05556
3/8 (.3750)-16	.4156	.4189	.4203	.3885	.3987	.4602	.06250
7/16 (.4375)-14	.4839	.4875	.4890	.4530	.4639	.5343	.07143
1/2 (.5000)-13	.5499	.5537	.5554	.5166	.5273	.6042	.07692
9/16 (.5625)-12	.6167	.6208	.6225	.5806	.5918	.6751	.08333
5/8 (.6250)-11	.6841	.6885	.6903	.6447	.6564	.7477	.09091
3/4 (.7500)-10	.8149	.8196	.8216	.7716	.7838	.8850	.10000
7/8 (.8750)-9	.9471	.9522	.9543	.8990	.9119	1.0247	.11111
1 (1.000)-8	1.0812	1.0868	1.0890	1.0271	1.0421	1.1681	.12500
1-1/8 (1.1250)-7	1.2178	1.2239	1.2262	1.1559	1.1730	1.3171	.14286
1-1/4 (1.2500)-7	1.3428	1.3490	1.3514	1.2809	1.2980	1.4421	.14286
1-3/8 (1.3750)-6	1.4832	1.4900	1.4926	1.4110	1.4310	1.5982	.16667
1-1/2 (1.5000)-6	1.6082	1.6151	1.6177	1.5360	1.5560	1.7232	.16667
UNIFIED FINE							
2 (.086)-64	.0962	.0974	.0981	.0894	.0947	.1088	.01563
3 (.099)-56	.1106	.1119	.1126	.1029	.1086	.1247	.01786
4 (.112)-48	.1256	.1271	.1279	.1166	.1229	.1419	.02083
6 (.138)-40	.1543	.1560	.1569	.1435	.1503	.1733	.02500
8 (.164)-36	.1821	.1840	.1849	.1701	.1771	.2032	.02778
10 (.190)-32	.2103	.2123	.2133	.1968	.2041	.2337	.03125
1/4 (.2500)-28	.2732	.2754	.2765	.2577	.2646	.2995	.03571
5/16 (.3125)-24	.3395	.3421	.3433	.3215	.3288	.3700	.04167
3/8 (.3750)-24	.4020	.4047	.4059	.3840	.3910	.4325	.04167
7/16 (.4375)-20	.4700	.4731	.4744	.4483	.4561	.5062	.05000
1/2 (.5000)-20	.5325	.5357	.5371	.5108	.5186	.5687	.05000
9/16 (.5625)-18	.5986	.6020	.6035	.5745	.5826	.6384	.05556
5/8 (.6250)-18	.6611	.6646	.6661	.6370	.6451	.7009	.05556
3/4 (.7500)-16	.7906	.7945	.7961	.7635	.7720	.8352	.06250
7/8 (.8750)-14	.9214	.9257	.9274	.8905	.8994	.9718	.07143
1 (1.000)-14	1.0464	1.0508	1.0527	1.0155	1.0243	1.0968	.07143
1 (1.000)-12	1.0542	1.0589	1.0608	1.0181	1.0281	1.1126	.08333
1-1/8 (1.1250)-12	1.1792	1.1841	1.1860	1.1431	1.1531	1.2376	.08333
1-1/4 (1.2500)-12	1.3042	1.3092	1.3112	1.2681	1.2781	1.3626	.08333
1-3/8 (1.3750)-12	1.4292	1.4343	1.4364	1.3931	1.4031	1.4876	.08333
1-1/2 (1.5000)-12	1.5542	1.5595	1.5615	1.5181	1.5281	1.6126	.08333

Heli-Coil drilling data - metric

METRIC - DRILLED HOLE DIMENSIONS

Nominal Thread Size	Minor Diameter		Suggested Drill Size	
	Min.	Max.	Aluminum	Steel, Magnesium ,Plastic
METRIC COARSE				
M2X0.4	2.087	2.170	2.1	2.1
M2.2x0.45	2.297	2.397	2.3	2.35
M2.5x0.45	2.597	2.697	2.55	2.65
M3x0.5	3.108	3.220	3.15	3.2
M3.5x0.6	3.630	3.755	3.7	3.7
M4x0.7	4.152	4.292	4.2	4.25
M5x0.8	5.174	5.334	5.2	5.3
M6x1	6.217	6.407	6.25	6.3
M7x1	7.217	7.407	7.25	7.3
M8x1.25	8.271	8.483	8.3	8.4
M10x1.5	10.324	10.560	10.5	10.5
M12x1.75	12.379	12.644	12.5	12.5
M14x2	14.433	14.733	14.5	14.5
M16x2	16.433	16.733	16.5	16.5
M18x2.5	18.541	18.896	18.75	18.75
M20x2.5	20.541	20.896	20.75	20.75
M22x2.5	22.541	22.896	22.75	22.75
M24x3	24.649	25.049	24.75	24.75
M27x3	27.649	28.049	27.75	27.75
M30x3.5	30.757	31.207	31	31
M33x3.5	33.757	34.207	34	34
M36x4	36.866	37.341	37	37
M39x4	39.866	40.341	40	40
METRIC FINE				
M8x1	8.217	8.407	8.25	8.3
M10x1	10.217	10.407	10.25	10.25
M10x1.25	10.271	10.483	10.25	10.25
M12x1.25	12.271	12.483	12.25	12.25
M12x1.5	12.324	12.560	12.25	12.5
M14x1.5	14.324	14.560	14.25	14.5
M16x1.5	16.324	16.560	16.25	16.5
M18x1.5	18.324	18.560	18.25	18.5
M20x1.5	20.324	20.560	20.25	20.5
M22x1.5	22.324	22.560	22.25	22.5
M18x2	18.433	18.733	18.5	18.5
M20x2	20.433	20.733	20.5	20.5
M22x2	22.433	22.733	22.5	22.5
M24x2	24.433	24.733	24.5	24.5
M27x2	27.433	27.733	27.5	27.5
M30x2	30.433	30.733	30.5	30.5
M33x2	33.433	33.733	33.5	33.5
M36x2	36.433	36.733	36.5	36.5
M39x2	39.433	39.733	39.5	39.5
M36x3	36.649	37.049	37	37
M39x3	39.649	40.049	40	40

Heli-Coil thread data - metric

Nominal Thread Size	Min.	Pitch Diameter		Major Diameter Max.
		4H Max.	5H Max.	
METRIC COARSE				
M2X0.4	2.260	2.295	2.310	2.581
M2.2x0.45	2.492	2.532	2.547	2.845
M2.5x0.45	2.792	2.832	2.847	3.145
M3x0.5	3.325	3.367	3.384	3.716
M3.5x0.6	3.890	3.940	3.959	4.354
M4x0.7	4.455	4.509	4.529	5.007
M5x0.8	5.520	5.577	5.597	6.145
M6x1	6.650	6.719	6.742	7.422
M7x1	7.650	7.719	7.742	8.422
M8x1.25	8.812	8.886	8.911	9.787
M10x1.5	10.974	11.061	11.089	12.131
M12x1.75	13.137	13.236	13.271	14.478
M14x2	15.299	15.406	15.444	16.822
M16x2	17.299	17.406	17.444	18.822
M18x2.5	19.624	19.738	19.778	21.513
M20x2.5	21.624	21.738	21.778	23.513
M22x2.5	23.624	23.738	23.778	25.513
M24x3	25.948	26.093	26.135	28.238
M27x3	28.948	29.093	29.135	31.238
M30x3.5	32.273	32.428	32.472	34.925
M33x3.5	35.273	35.428	35.472	37.925
M36x4	38.598	38.763	38.809	41.615
M39x4	41.598	41.763	41.809	44.615
METRIC FINE				
M8x1	8.650	8.719	8.742	9.422
M10x1	10.650	10.719	10.742	11.422
M10x1.25	10.812	10.886	10.911	11.787
M12x1.25	12.812	12.898	12.926	13.787
M12x1.5	12.974	13.067	13.099	14.131
M14x1.5	14.974	15.067	15.099	16.131
M16x1.5	16.974	17.067	17.099	18.131
M18x1.5	18.974	19.067	19.099	20.131
M20x1.5	20.974	21.067	21.099	22.131
M22x1.5	22.974	23.067	23.099	24.131
M18x2	19.299	19.406	19.444	20.822
M20x2	21.299	21.406	21.444	22.822
M22x2	23.299	23.406	23.444	24.822
M24x2	25.299	25.414	25.454	26.822
M27x2	28.299	28.414	28.454	29.822
M30x2	31.299	31.414	31.454	32.822
M33x2	34.299	34.414	34.454	35.822
M36x2	37.299	37.414	37.454	38.822
M39x2	40.299	40.414	40.454	41.822
M36x3	37.948	38.093	38.135	40.238
M39x3	40.948	41.093	41.135	43.238