



# TECHNICAL DATA

## TAP SIZE RECOMMENDATIONS FOR CLASSES 2B & 3B

### Machine Screw Sizes

Size	Threads Per Inch		Recommended Tap For Class of Thread		Pitch Diameter Limits For Class of Thread		
	NC	NF	Class 2B	Class 3B	Min. All Classes (Basic)		
					Max Class 2B	Max Class 3B	
0	-	80	H2	H1	.0519	.0542	.0536
1	64	-	H2	H1	.0629	.0655	.0648
1	-	72	H2	H1	.0640	.0665	.0659
2	56	-	H2	H1	.0744	.0772	.0765
2	-	64	H2	H1	.0759	.0786	.0779
3	48	-	H2	H1	.0855	.0885	.0877
3	-	56	H2	H1	.0874	.0902	.0895
4	40	-	H2	H2	.0958	.0991	.0982
4	-	48	H2	H1	.0985	.1016	.1008
5	40	-	H2	H2	.1088	.1121	.1113
5	-	44	H2	H1	.1102	.1134	.1126
6	32	-	H3	H2	.1177	.1214	.1204
6	-	40	H2	H2	.1218	.1252	.1243
8	32	-	H3	H2	.1437	.1475	.1465
8	-	36	H2	H2	.1460	.1496	.1487
10	24	-	H3	H3	.1629	.1672	.1661
10	-	32	H3	H2	.1697	.1736	.1726
12	24	-	H3	H3	.1889	.1933	.1922
12	-	28	H3	H3	.1928	.1970	.1959

### Fractional Sizes

Size	Threads Per Inch		Recommended Tap For Class of Thread		Pitch Diameter Limits For Class of Thread		
	NC	NF	Class 2B	Class 3B	Min. All Classes (Basic)		
					Max Class 2B	Max Class 3B	
1/4	20	-	H5	H3	.2175	.2223	.2211
1/4	-	28	*H4	H3	.2268	.2311	.2300
5/16	18	-	H5	H3	.2764	.2817	.2803
5/16	-	24	*H4	H3	.2854	.2902	.2890
3/8	16	-	H5	H3	.3344	.3401	.3387
3/8	-	24	*H4	H3	.3479	.3528	.3516
7/16	14	-	H5	H3	.3911	.3972	.3957
7/16	-	20	H5	H3	.4050	.4104	.4091
1/2	13	-	H5	H3	.4500	.4565	.4548
1/2	-	20	H5	H3	.4675	.4731	.4717
9/16	12	-	H5	H3	.5084	.5152	.5135
9/16	-	18	H5	H3	.5264	.5323	.5308
5/8	11	-	H5	H3	.5660	.5732	.5714
5/8	-	18	H5	H3	.5889	.5949	.5934
3/4	10	-	H5	H5	.6850	.6927	.6907
3/4	-	16	H5	H3	.7094	.7159	.7143
7/8	9	-	H6	H4	.8028	.8110	.8089
7/8	-	14	H6	H4	.8286	.8356	.8339
1	8	-	H6	H4	.9188	.9276	.9254
1	-	12	H6	H4	.9459	.9535	.9516

### Metric Sizes For Class 6H

Thread Size	Nominal Dia. (mm)	Pitch (mm)	Internal Thread-Class 6H (Inches)				Recommended Tap		
			Minor Dia.		Pitch Dia.		Major Dia.	Tap Size	Limit Number
1.6	0.35	.0481	.0520	.0541	.0574	.0630	M1.6x0.35	D-3	
2	0.4	.0617	.0661	.0686	.0720	.0788	M2 x0.4	D-3	
2.5	0.45	.0793	.0841	.0870	.0906	.0985	M2.5x0.45	D-3	
3	0.5	.0969	.1023	.1054	.1092	.1182	M3 x0.5	D-3	
3.5	0.6	.1123	.1185	.1225	.1268	.1378	M3.5x0.6	D-4	
4	0.7	.1277	.1347	.1396	.1442	.1575	M4 x0.7	D-4	
4.5	0.75	.1452	.1526	.1580	.1626	.1772	M4.5x0.75	D-4	
5	0.8	.1628	.1706	.1764	.1812	.1969	M5 x0.8	D-4	
6	1.0	.1936	.2028	.2107	.2165	.2363	M6 x1	D-5	
7	1.0	.2330	.2422	.2500	.2559	.2756	M7 x1	D-5	
8	1.25	.2617	.2721	.2830	.2892	.3150	M8 x1.25	D-5	
10	1.5	.3298	.3415	.3554	.3624	.3937	M10 x1.5	D-6	
12	1.75	.3979	.4110	.4277	.4355	.4725	M12 x1.75	D-6	
14	2.0	.4660	.4807	.5001	.5083	.5512	M14 x2	D-7	
16	2.0	.5447	.5594	.5788	.5871	.6300	M16 x2	D-7	
20	2.5	.6809	.6985	.7235	.7322	.7875	M20 x2.5	D-7	
24	3.0	.8171	.8366	.8682	.8785	.9449	M24 x3	D-8	
30	3.5	1.0320	1.0539	1.0917	1.1026	1.1812	M30 x3.5	D-9	
36	4.0	1.2469	1.2704	1.3151	1.3268	1.4174	M36 x4	D-9	

### Forming Type Taps Machine Screw and Fractional Sizes

Tap Size UNC-NF	Basic P.D.	Tap Recommendations For Class 2B Fit		Tap Recommendations For Class 3B Fit		Oversize Forming Taps	
		Styles Avail.	Thread Limit	Styles Avail.	Thread Limit	Styles Avail.	Thread Limit
0-80	.0519	-	-	H-2	.0536	-	-
1-64	.0629	-	-	H-2	.0648	-	-
1-72	.0640	-	-	H-2	.0659	-	-
2-56	.0744	H-3	.0772	H-2	.0765	-	-
2-64	.0759	H-3	.0786	H-2	.0779	-	-
3-48	.0855	H-3	.0885	H-2	.0877	-	-
3-56	.0874	H-3	.0902	H-2	.0895	-	-
4-40	.0958	H-5	.0991	H-3	.0982	-	-
4-48	.0985	H-5	.1016	H-3	.1008	-	-
5-40	.1088	H-5	.1121	H-3	.1113	-	-
5-44	.1102	H-5	.1134	H-3	.1126	-	-
6-32	.1177	H-5	.1214	H-3	.1204	-	-
6-40	.1218	H-5	.1252	H-3	.1243	-	-
8-32	.1437	H-5	.1475	H-3	.1465	-	-
8-36	.1460	H-5	.1496	H-3	.1487	-	-

Tap Size UNC-NF	Basic P.D.	Tap Recommendations For Class 2B Fit		Tap Recommendations For Class 3B Fit		Oversize Forming Taps	
		Styles Avail.	Thread Limit	Styles Avail.	Thread Limit	Styles Avail.	Thread Limit
10-24	.1629	H-6	.1672	H-4	.1661	-	-
10-32	.1697	H-6	.1736	H-4	.1762	-	-
12-24	.1889	H-6	.1933	H-4	.1922	-	-
12-28	.1928	H-6	.1970	H-4	.1959	-	-
1/4-20	.2175	H-6	.2223	H-4	.2211	H-8	.2215
1/4-28	.2268	H-6	.2311	H-4	.2300	H-8	.2308
5/16-18	.2764	H-7	.2817	H-5	.2803	H-9	.2809
5/16-24	.2854	H-7	.2902	H-5	.2890	H-9	.2899
3/8-16	.3344	H-7	.3401	H-5	.3387	H-9	.3389
3/8-24	.3479	H-7	.3528	H-5	.3516	H-9	.3524
7/16-14	.3911	H-8	.3972	H-5	.3957	-	-
7/16-20	.4050	H-8	.4104	H-5	.4091	-	-
1/2-13	.4500	H-8	.4565	H-5	.4548	H-10	.4550
1/2-20	.4675	H-8	.4731	H-5	.4717	H-10	.4725

\*In cast iron applications, with the CID style, we recommend H5 limit for Class 2B fit.

