

Length Tolerance - Inch - Per ANSI B18.6.3		
Nominal Screw Length	Nominal Screw Size	
	#4 - #12	1/4" - 1/2"
Tolerance On Length		
To 1/2" Inclusive	+0, - .020	+0, - .030
Over 1/2" to 1" Inclusive	+0, - .030	+0, - .030
Over 1" to 2" Inclusive	+0, - .060	+0, - .060
Over 2"	+0, - .090	+0, - .090

Length Tolerance - Metric - Per ANSI B18.6.7M	
Nominal Screw Length	Tolerance on Length mm
to 3mm incl.	± 0.2
over 3 to 10mm	± 0.3
over 10 to 16mm	± 0.4
over 16 to 50mm	± 0.5
over 50mm	± 1.0

SCREW SIZE	SCREW BODY DIMENSIONS				POINT
	Max.	Min.	Max.	Min.	Cp Maximum
Metric Sizes (mm)					
M2.5 x 0.45	2.57	2.48	2.52	2.44	2.22
M3.0 x 0.50	3.07	2.98	3.02	2.93	2.69
M3.5 x 0.60	3.58	3.48	3.52	3.42	3.13
M4.0 x 0.70	4.08	3.98	4.01	3.91	3.57
M4.5 x 0.75	4.59	4.48	4.51	4.41	4.04
M5.0 x 0.80	5.09	4.98	5.01	4.90	4.51
M6.0 x 1.00	6.10	5.97	6.00	5.87	5.38
M7.0 x 1.00	7.10	6.97	7.00	6.87	6.38
M8.0 x 1.25	8.13	7.97	8.00	7.85	7.23
M10 x 1.50	10.15	9.97	10.00	9.82	9.07
M12 x 1.75	12.18	11.97	12.00	11.80	10.92
M14 x 2.00	14.20	13.97	14.00	13.77	12.77
M16 x 2.00	16.20	15.97	16.00	15.77	14.77
Inch Sizes (in)					
2-56	0.0875	0.0835	0.0855	0.0815	0.075
3-48	0.1010	0.0970	0.0990	0.0950	0.086
4-40	0.1145	0.1105	0.1120	0.1080	0.097
5-40	0.1275	0.1235	0.1250	0.1210	0.110
6-32	0.1410	0.1350	0.1380	0.1320	0.119
8-32	0.1670	0.1610	0.1640	0.1580	0.145
10-24	0.1940	0.1880	0.1900	0.1840	0.164
10-32	0.1930	0.1870	0.1900	0.1840	0.171
12-24	0.2200	0.2140	0.2160	0.2100	0.190
1/4-20	0.2550	0.2490	0.2500	0.2440	0.219
5/16-18	0.3180	0.3120	0.3125	0.3065	0.278
3/8-16	0.3810	0.3750	0.3745	0.3685	0.336
7/16-14	0.4445	0.4385	0.4375	0.4315	0.393
1/2-13	0.5075	0.5015	0.5000	0.4940	0.453
9/16-12	0.5710	0.5630	0.5625	0.5545	0.511
5/8-11	0.6340	0.6260	0.6250	0.6170	0.569

DUO-TAPTITE® Thread Rolling Screws

TAPTITE® screws were the leap forward in high production assembly using threaded fasteners. DUO-TAPTITE® screws represent the refinement of the TRILOBULAR™ principle for specific demanding applications.

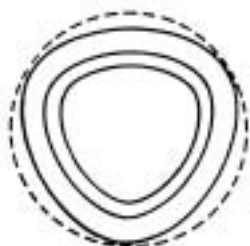
DUO-TAPTITE® screws have generous lobulation at the screw point for easy entry and optimum thread forming action plus reduced lobulation in the screw body holding area. A stabilizing threaded dog point insures ready, aligned entry, with easy pick-up requiring minimal starting end load.

ADVANTAGES

- High vibrational resistance
- Good axial alignment
- Low end load
- High strip-to-drive ratio
- High prevailing torque
- Good torque tension relationship

Better starting stability – Axial alignment

Less misalignment at start of driving operation . . . the self-aligning characteristic of DUO-TAPTITE® screws reduces operator fatigue; eliminates interruptions in production; adds speed to every fastening operation. Suitable for automated and robotic assembly.



TYPICAL ANGULARITY

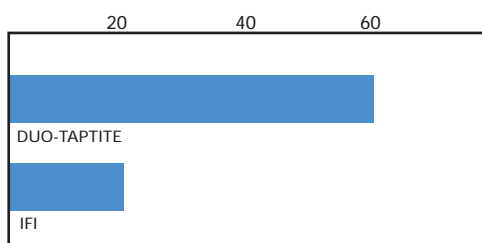
DUO-TAPTITE	COMPETITIVE ROUND-BODIED THREAD-FORMING SCREW
2°	5°
1°	3°
2°	4°
2°	3°

* Starting angle of four specimens of each type measured at 20X full size on an optical comparator

B – Higher prevailing torque

Superior elastic action of a DUO-TAPTITE® screw gives it better locking characteristics than many fasteners specifically designed as locking screws! Competitive round-bodied, thread-forming fasteners have no locking torque. Graph shows comparison of a DUO-TAPTITE® screw with the IFI-124 minimum requirement for self-locking screws.

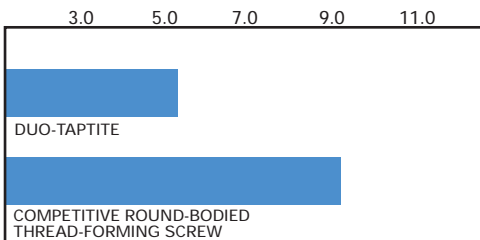
PREVAILING LOCKING TORQUE: POUND-INCHES



Result is an average of samples tested

Lower starting end pressure

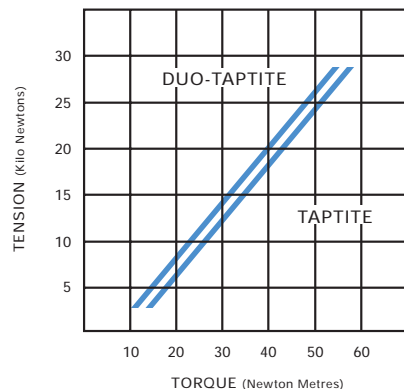
Lower starting end pressure combines with lower driving torque to reduce time and power costs right down the line.



Result is an average of samples tested

Torque-tension comparison M8 x 1.25 DUO-TAPTITE® vs. TAPTITE® Fastener

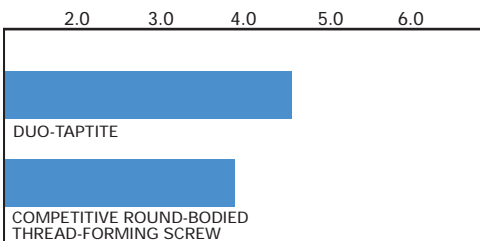
Superior tension at any given applied torque (with normal clamping pressure) is a major factor in the better holding capability of a DUO-TAPTITE® screw.



NOTE: This graph represents a linear calculation based on statistical data of the respective screws

A – Higher strip-to-drive ratio

The higher, more uniform, strip-to-drive torque ratio of DUO-TAPTITE® screws provides a built-in safety factor against over-driving. Eliminates broken screws, damaged mating threads and inferior fastenings.



Result is an average of samples tested

DUO-TAPTITE® fasteners, and/or their manufacture according to REMINC specifications, covered by one or more of the following patents:

6,089,806, 6,089,986, 6,261,040.

NOTE: All screws were tested in unthreaded weld nuts of uniform hardness (Rockwell B 82-84) having 7.1mm hole diameters. End pressure was manually developed, measured and recorded by an electronic load cell and recorder. Drive, prevailing and strip torque values, and torque-tension values were measured with a GSE torque cell and recorded on a BLH electronic recorder. All test data is based on 5/16 - 18 or M8 x 1.25 screws.

Hole Size Information



Suggested hole sizes for TAPTITE II®, DUO-TAPTITE® and TAPTITE® CA Screws and Bolts at various percentages of thread engagement

Metric Sizes (mm)

NOMINAL SCREW SIZE	PERCENT THREAD													
	100	95	90 (1)	85 (1)	80	75	70	65	60	55	50	45	40	35
	PILOT HOLE SIZES													
M2.5 x 0.45	2.21	2.22	2.24	2.25	2.27	2.28	2.29	2.31	2.32	2.34	2.35	2.37	2.38	2.40
M3 x 0.5	2.67	2.69	2.71	2.72	2.74	2.76	2.77	2.79	2.80	2.82	2.84	2.85	2.87	2.90
M3.5 x 0.6	3.11	3.13	3.15	3.17	3.19	3.21	3.23	3.25	3.27	3.29	3.30	3.32	3.34	3.36
M4 x 0.7	3.54	3.57	3.59	3.61	3.64	3.66	3.68	3.70	3.73	3.75	3.77	3.79	3.80	3.84
M4.5 x 0.75	4.01	4.04	4.06	4.09	4.11	4.13	4.16	4.18	4.21	4.23	4.26	4.28	4.30	4.33
M5 x 0.8	4.48	4.51	4.53	4.56	4.58	4.61	4.64	4.66	4.69	4.71	4.74	4.77	4.79	4.82
M6 x 1.0	5.35	5.38	5.42	5.45	5.48	5.51	5.54	5.58	5.61	5.64	5.67	5.71	5.74	5.77
M6.3 x 1.0	5.65	5.68	5.72	5.75	5.78	5.81	5.84	5.88	5.91	5.94	5.97	6.01	6.04	6.07
M7 x 1.0	6.35	6.38	6.42	6.45	6.48	6.51	6.54	6.58	6.61	6.64	6.67	6.71	6.74	6.77
M8 x 1.25	7.19	7.23	7.27	7.31	7.35	7.39	7.43	7.47	7.51	7.55	7.59	7.63	7.67	7.72
M10 x 1.5	9.03	9.07	9.12	9.17	9.22	9.27	9.32	9.37	9.41	9.46	9.51	9.56	9.61	9.66
M12 x 1.75	10.86	10.92	10.98	11.03	11.09	11.15	11.20	11.26	11.31	11.37	11.43	11.49	11.55	11.60

Inch Sizes (in)

NOMINAL SCREW SIZE	PERCENT THREAD													
	100	95	90 (1)	85 (1)	80	75	70	65	60	55	50	45	40	35
	PILOT HOLE SIZES													
2-56	.0744	.0750	.0756	.0761	.0767	.0773	.0779	.0785	.0790	.0796	.0802	.0808	.0814	.0819
3-48	.0855	.0861	.0868	.0875	.0882	.0888	.0895	.0902	.0909	.0916	.0922	.0929	.0936	.0943
4-40	.0958	.0966	.0974	.0982	.0990	.0998	.1006	.1014	.1023	.1031	.1039	.1047	.1055	.1063
5-40	.1088	.1096	.1104	.1112	.1120	.1128	.1136	.1144	.1153	.1161	.1169	.1177	.1185	.1193
6-32	.1177	.1187	.1197	.1207	.1218	.1228	.1238	.1248	.1258	.1268	.1278	.1289	.1299	.1309
8-32	.1437	.1447	.1457	.1467	.1478	.1488	.1498	.1508	.1518	.1528	.1538	.1549	.1559	.1569
10-24	.1629	.1643	.1656	.1670	.1683	.1697	.1710	.1724	.1738	.1751	.1765	.1778	.1792	.1805
10-32	.1697	.1707	.1717	.1727	.1738	.1748	.1758	.1768	.1778	.1788	.1798	.1809	.1819	.1829
12-24	.1889	.1903	.1916	.1930	.1943	.1957	.1970	.1984	.1998	.2011	.2025	.2038	.2052	.2065
1/4-20	.2175	.2191	.2208	.2224	.2240	.2256	.2273	.2289	.2305	.2321	.2338	.2354	.2370	.2386
5/16-18	.2764	.2782	.2800	.2818	.2836	.2854	.2872	.2890	.2908	.2926	.2944	.2963	.2981	.2999
3/8-16	.3344	.3364	.3384	.3405	.3425	.3445	.3466	.3486	.3506	.3527	.3547	.3567	.3588	.3608
7/16-14	.3911	.3934	.3957	.3980	.4004	.4027	.4050	.4073	.4096	.4120	.4143	.4166	.4189	.4213
1/2-13	.4500	.4525	.4550	.4575	.4600	.4625	.4650	.4675	.4700	.4725	.4750	.4775	.4800	.4825

EXAMPLE – The shaded area indicates that an M5 – 0.8 screw size in a 4.58 hole size provides 80% thread engagement.

Because the above values are based on a linear relation between hole size and percentage thread engagement, the hole data becomes less accurate for engagements less than 70%.

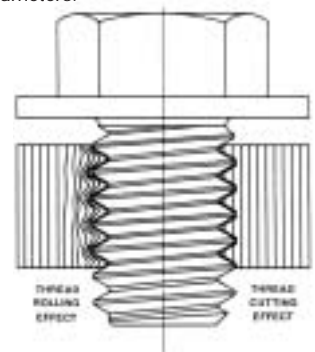
Note also, these holes are based on the U.S. basic thread depth of .6495 times the pitch and are calculated using nominal screw diameters.

Hole = D - (0.6495 x P x %), where D = nominal screw diameter.

(1) Pilot holes listed under 90% & 85% (Thread Percent) also recommended for single punch extruded holes. - See Page 11

For Pilot Hole Tolerance in terms of thread percentage, we suggest +5% to -10% of the nominal, percent thread value.

EXAMPLE; If 80% is the percent thread for the nominal hole, the minimum hole would yield 85% thread and the maximum hole would yield 70% thread.





Hole Size Information

Recommended pilot hole sizes for TAPTITE II®, DUO-TAPTITE® and TAPTITE® CA Screws and Bolts for steel nut member thicknesses

(Expressed in terms of screw diameters)

Metric Sizes (mm)

Application Duty Class	Light 0.3 Diameter of Material			Medium-Light 0.5 Diameter of Material			Medium-Heavy 0.75 Diameter of Material			Full Strength 1.0 Diameter of Material			Extended 1.25 Diameter of Material		
Percentage of Thread	90%			85%			80%			75%			70%		
Nominal Size	Material Thickness	Pilot Hole	Drill Size	Material Thickness	Pilot Hole	Drill Size	Material Thickness	Pilot Hole	Drill Size	Material Thickness	Pilot Hole	Drill Size	Material Thickness	Pilot Hole	Drill Size
M2.5 x 0.45	0.5-0.9	2.24	2.25	0.9-1.5	2.25	2.25	1.5-2.1	2.27	#43 2.26	2.1-2.7	2.28	#43 2.26	2.7-3.5	2.30	2.30
M3 x 0.5	0.5-1.1	2.71	#36 2.71	1.1-1.7	2.72	#36 2.71	1.7-2.7	2.74	2.75	2.7-3.3	2.76	2.75	3.3-4.0	2.77	7/64" 2.78
M3.5 x 0.6	0.6-1.4	3.15	1/8" 3.18	1.4-2.0	3.17	1/8" 3.18	2.0-2.9	3.19	3.2	2.9-3.8	3.21	3.2	3.8-4.5	3.23	3.25
M4 x 0.7	0.8-1.4	3.59	3.6	1.4-2.4	3.61	3.60	2.4-3.3	3.64	#27 3.66	3.3-4.4	3.66	#27 3.66	4.4-5.5	3.68	3.7
M4.5 x 0.75	0.9-1.7	4.06	#21 4.04	1.7-2.7	4.09	#20 4.09	2.7-3.9	4.11	4.1	3.9-4.9	4.13	4.1	4.9-6.4	4.16	4.2
M5 x 0.8	1.0-2.1	4.53	4.5	2.1-2.9	4.56	#15 4.57	2.9-4.4	4.58	#15 4.57	4.4-5.9	4.61	4.6	5.9-7.1	4.64	#14 4.62
M6 x 1.0	1.2-2.4	5.42	#3 5.41	2.4-3.6	5.45	#3 5.41	3.6-4.9	5.48	5.5	4.9-6.9	5.51	5.5	6.9-8.1	5.55	7/32" 5.56
M6.3 x 1.0	1.3-2.4	5.72	5.7	2.4-3.7	5.75	5.75	3.7-4.9	5.78	5.75	4.9-7.4	5.81	5.8	7.4-8.9	5.85	5.80
M7 x 1.0	1.4-2.4	6.42	6.4	2.4-4.4	6.45	6.40	4.4-6.5	6.48	6.5	6.4-7.7	6.51	6.5	7.7-9.5	6.55	F 6.53
M8 x 1.25	1.6-3.1	7.27	7.25	3.1-4.9	7.31	7.30	4.6-6.9	7.35	L 7.37	6.9-8.9	7.39	L 7.4	8.9-10.9	7.43	7.4
M10 x 1.50	1.9-3.9	9.12	23/64" 9.10	3.9-5.9	9.17	9.20	5.9-8.3	9.22	9.20	8.3-10.9	9.27	9.25	10.9-12.9	9.32	9.3
M12 x 1.75	2.4-4.9	10.98	11.0	4.9-7.4	11.03	11.0	7.4-10.5	11.09	7/16" 11.11	10.5-14.5	11.15	7/16" 11.11	14.5-17.0	11.2	7/16" 11.11

Inch Sizes (in)

Application Duty Class	Light 0.3 Diameter of Material			Medium-Light 0.5 Diameter of Material			Medium-Heavy 0.75 Diameter of Material			Full Strength 1.0 Diameter of Material			Extended 1.25 Diameter of Material		
Percentage of Thread	90%			85%			80%			75%			70%		
Nominal Size	Material Thickness	Pilot Hole	Drill Size	Material Thickness	Pilot Hole	Drill Size	Material Thickness	Pilot Hole	Drill Size	Material Thickness	Pilot Hole	Drill Size	Material Thickness	Pilot Hole	Drill Size
2-56	.017-.034	.0756	1.9mm .0748	.034-.052	.0761	#48 .076	.052-.073	.0767	1.95mm .0763	.073-.095	.0773	5/64 .0781	.095-.169	.0779	5/64 .0781
3-48	.020-.040	.0868	2.2mm .0866	.040-.059	.0875	2.2mm .0866	.059-.084	.0882	#43 .089	.084-.110	.0888	#43 .089	.110-.141	.0895	#43 .089
4-40	.022-.045	.0974	#40 .098	.045-.067	.0982	#40 .098	.067-.095	.0990	#39 .0995	.095-.126	.0998	#39 .0995	.126-.157	.1006	#39 .0995
5-40	.025-.051	.1104	2.8mm .1102	.051-.075	.1112	#34 .111	.075-.106	.1120	#33 .113	.106-.141	.1128	#33 .113	.141-.175	.1136	#33 .113
6-32	.028-.066	.1197	#31 .120	.066-.083	.1207	#31 .120	.083-.117	.1218	3.1mm .122	.117-.152	.1288	3.1mm .122	.152-.193	.1238	1/8 .125
8-32	.033-.066	.1457	3.7mm .1457	.066-.098	.1467	#26 .147	.098-.141	.1478	3.75mm .1476	.141-.180	.1488	3.8mm .1496	.180-.230	.1498	3.8mm .1496
10-24	.038-.079	.1656	#19 .166	.079-.114	.1670	4.25mm .1673	.114-.162	.1683	#18 .1695	.162-.209	.1697	#18 .1695	.209-.266	.1710	11/64 .1719
10-32	.038-.079	.1717	11/64 .1719	.079-.114	.1727	#17 .173	.114-.162	.1738	#17 .173	.162-.209	.1748	4.4mm .1732	.209-.266	.1758	#16 .177
12-24	.043-.086	.1916	#11 .191	.086-.130	.1930	4.9mm# .1929	.130-.184	.1943	9# .196	.184-.238	.1957	95 .196	.238-.302	.1970	5mm .1969
1/4-20	.050-.100	.2208	#2 .221	.100-.150	.2224	5.7mm .2244	.150-.213	.2240	5.7mm .2244	.213-.275	.2256	5.75mm .2264	.275-.350	.2273	#1 .228
5/16-18	.062-.126	.2800	7.1mm .2795	.126-.188	.2818	9/32 .2812	.188-.266	.2836	7.2mm .2835	.266-.345	.2854	7.25mm .2854	.345-.438	.2872	7.3mm .2874
3/8-16	.075-.150	.3384	8.6mm .3386	.150-.225	.3405	8.6mm .3386	.225-.319	.3425	8.7mm .3425	.319-.413	.3445	8.75mm .3455	.413-.525	.3466	8.8mm .3465
7/16-14	.087-.174	.3957	X .397	.174-.262	.3980	X .397	.262-.371	.4004	X .397	.371-.481	.4027	Y .404	.481-.612	.4050	Y .404
1/2-13	.100-.200	.4550	29/64 .4531	.200-.300	.4575	29/64 .4531	.300-.425	.4600	29/64 .4531	.425-.550	.4625	15/32 .4688	.550-.700	.4650	15/32 .4688

Notes: This chart pertains to steel nut members

APPLICATION DUTY CLASS - A general term used here to group material thickness in terms of screw diameters. For example, the average material thickness listed under "medium-heavy" equals 75% of the screw diameter.

Technical drawing of a U-shaped metal part. The drawing shows a cross-section of the part with the following dimensions and tolerances:

- Top Flange Thickness:** $+1.00\text{mm}$ ($+.040$ in.) / $-.000$
- Top Flange Width:** D
- Bottom Flange Thickness:** T
- Bottom Flange Width:** W Min. = $T/2$, W Max. = $0.6T$
- Radius:** R $+125\text{mm}$ ($+.005$ in.) / $-.000$

The areas of the upper chart indicate that an extruded hole diameter of .146" to .149" is suggested in .060" thick material when using a number 8-32 TAPTITE II® or DUO-TAPTITE® screw. The corresponding H dimension, shown on Page 12, for this hole will be .053" minimum, making the total length of engagement .113" minimum.

TAPTITE II® and DUO-TAPTITE® screws and bolts will develop almost twice the failure torque in extruded holes, providing maximum joint integrity.

mm Thickness	0.5			0.8		1.1		1.6		2.4		3.6		4.4		5.5					
Inch Thickness		0.02	0.03		0.04		0.06		0.09		0.13		0.16			0.19		0.22	0.25	0.31	0.38
Screw Size	HOLE SIZES - D																				
M2.5 x 0.45	2.21 2.24			2.22 2.26		2.25 2.28		2.27 2.30													
M3 x 0.50	2.68 2.71			2.71 2.74		2.74 2.77		2.77 2.80		2.80 2.83											
M3.5 x 0.60	3.11 3.15			3.13 3.18		3.16 3.21		3.19 3.24		3.24 3.29		3.27 3.32									
6-32		0.118 0.120	0.118 0.121		0.119 0.122		0.120 0.123		0.122 0.125												
M4 x 0.70				3.55 3.59		3.58 3.62		3.60 3.65		3.64 3.68		3.69 3.73									
8-32		0.144 0.146	0.144 0.147		0.145 0.148		0.146 0.149		0.147 0.150		0.148 0.152										
M4.5 x 0.75				4.01 4.06		4.04 4.09		4.07 4.12		4.10 4.15		4.15 4.20									
10-24		0.163 0.165	0.163 0.166		0.164 0.167		0.165 0.168		0.166 0.170		0.168 0.173										
10-32		0.170 0.172	0.170 0.173		0.171 0.174		0.172 0.175		0.173 0.176		0.174 0.177										
M5 x 0.80						4.48 4.53		4.51 4.56		4.54 4.59		4.57 4.62									
12-24		0.189 0.191	0.189 0.192		0.190 0.193		0.191 0.194		0.192 0.196		0.193 0.197		0.195 0.200			0.198 0.203					
M6 x 1.00						5.35 5.42		5.38 5.45		5.41 5.48		5.44 5.51		5.49 5.56							
M6.3 x 1.00						5.65 5.72		5.68 5.75		5.71 5.78		5.74 5.81		5.79 5.86	5.85 5.91						
1/4-20					0.218 0.220		0.218 0.221		0.219 0.223		0.221 0.225		0.224 0.228			0.227 0.231		0.228 0.233	0.230 0.235		
M7 x 1.00						6.35 6.42		6.40 6.47		6.45 6.52		6.50 6.57		6.55 6.62	6.63 6.70		6.71 6.78				
5/16-18							0.277 0.279		0.278 0.280		0.279 0.281		0.280 0.283			0.281 0.285		0.283 0.288	0.285 0.290		
M8 x 1.25								7.19 7.27		7.22 7.30		7.25 7.33		7.30 7.38	7.35 7.43		7.43 7.51		7.51 7.59		
3/8-16											0.335 0.337		0.336 0.338			0.337 0.340		0.337 0.340	0.342 0.346	0.344 0.349	
M10 x 1.50								9.03 9.12		9.08 9.17		9.13 9.22		9.18 9.27	9.26 9.35		9.34 9.43		9.42 9.51	9.50 9.59	
7/16-14													0.392 0.395			0.394 0.397		0.396 0.400	0.398 0.402	0.401 0.405	0.404 0.409
M12 x 1.75										10.86 10.98		10.91 11.03		10.96 11.08	11.01 11.13		11.09 11.21		11.17 11.29	11.25 11.37	11.33 11.45
1/2-13																0.450 0.453		0.452 0.455	0.454 0.457	0.455 0.460	0.459 0.464

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Extruded Holes



**Suggested extruded holes in light gauge steel for
TAPTITE II® and DUO-TAPTITE® Screws and Bolts** (Continued from page 11)

Approximate Material Thickness "T"

IN MM	.024 - .035 0.61 - 0.89		.042 - .048 1.07 - 1.22		0.060 1.52		0.09 2.29		0.106 2.69		0.122 3.10	
	H	R	H	R	H	R	H	R	H	R	H	R
IN. 0.081 - .100 MM 2.06 - 2.54	0.040 1.02	0.005 0.13	0.040 1.02	0.005 0.13	0.040 1.02	0.006 0.15	0.043 1.09	0.010 0.25				
IN. .101 - .130 MM 2.57 - 3.30	0.047 1.19	0.005 0.13	0.047 1.19	0.005 0.13	0.047 1.19	0.006 0.15	0.052 1.32	0.010 0.25	0.054 1.37	0.010 0.25		
IN. .131 - .150 MM 3.33 - 3.81	0.053 1.35	0.005 0.13	0.053 1.35	0.005 0.13	0.053 1.35	0.006 0.15	0.060 1.52	0.010 0.25	0.063 1.60	0.010 0.25	0.072 1.83	0.013 0.33
IN. .151 - .180 MM 3.84 - 4.57			0.060 1.52	0.005 0.13	0.081 1.55	0.006 0.15	0.070 1.78	0.010 0.25	0.075 1.91	0.010 0.25	0.087 2.21	0.013 0.33
IN. .181 - .220 MM 4.60 - 5.59			0.070 1.78	0.005 0.13	0.070 1.78	0.006 0.15	0.090 2.29	0.010 0.25	0.095 2.41	0.010 0.25	0.104 2.64	0.013 0.33
IN. .221 - .260 MM 5.61 - 6.60					0.075 1.91	0.006 0.15	0.100 2.54	0.010 0.25	0.105 2.67	0.010 0.25	0.120 3.05	0.013 0.33
IN. .261 - .300 MM 6.63 - 7.62					0.083 2.11	0.006 0.15	0.116 2.95	0.010 0.25	0.125 3.18	0.010 0.25	0.140 3.58	0.013 0.33
IN. .301 - .340 MM 7.65 - 8.64							0.130 3.30	0.010 0.25	0.140 3.56	0.010 0.25	0.164 3.91	0.013 0.33
IN. .341 - .380 MM 8.66 - 9.65							0.140 3.56	0.010 0.25	0.155 3.94	0.010 0.25	0.170 4.32	0.013 0.33
IN. .381 - .430 MM 9.68 - 10.92							0.150 3.81	0.010 0.25	0.170 4.32	0.010 0.25	0.184 4.67	0.013 0.33

The above hole sizes are suggested starting points to be confirmed by actual testing. Extrusion dimensions can vary due to tooling design and material being extruded.

**Suggested hole sizes for Aluminum or Zinc die castings
For TAPTITE® and DUO-TAPTITE® Screws & Bolts**

Screw Size	Hole Diameter as Cast Std. Taper				F Hole Dia. as Drilled	L Length of Thread Engagement	H Boss Dia. Min.	J Distance to Edge for No Measurable Distortion-Min.
	Top A		Bottom B					
	Max.	Min.	Max.	Min.				
Metric Sizes (mm)								
M2 x 0.40	1.91	1.83	1.81	1.73	1.81	4.00	3.32	1.0
M2.5 x 0.45	2.39	2.31	2.28	2.20	2.28	5.00	4.15	1.2
M3 x 0.5	2.90	2.82	2.76	2.68	2.76	6.00	4.98	1.3
M3.5 x 0.6	3.31	3.23	3.21	3.13	3.21	7.00	5.81	1.6
M4 x 0.7	3.82	3.74	3.64	3.56	3.64	8.00	6.64	1.8
M4.5 x 0.75	4.31	4.23	4.11	4.03	4.11	9.00	7.47	2.0
M5 x 0.8	4.80	4.72	4.58	4.50	4.58	10.00	8.30	2.1
M6 x 1.0	5.74	5.66	5.48	5.40	5.48	12.00	9.96	2.6
M6.3 x 1.0	6.05	5.97	5.78	5.70	5.78	13.00	10.46	2.6
M7 x 1.0	6.78	6.70	6.48	6.40	6.48	14.00	11.62	2.6
M8 x 1.25	7.69	7.61	7.35	7.27	7.35	16.00	13.28	3.3
M10 x 1.5	9.64	9.56	9.22	9.14	9.22	20.00	16.60	3.9
M12 x 1.75	11.59	11.51	11.09	11.01	11.09	24.00	19.92	4.6
Inch Sizes (in)								
2-56	0.081	0.078	0.077	0.074	0.077	0.172	0.197	0.046
3-48	0.093	0.090	0.088	0.085	0.088	0.198	0.208	0.054
4-40	0.105	0.102	0.099	0.096	0.099	0.224	0.220	0.065
5-40	0.118	0.115	0.112	0.109	0.112	0.250	0.232	0.065
6-32	0.128	0.125	0.122	0.119	0.122	0.276	0.242	0.081
8-32	0.155	0.152	0.148	0.145	0.148	0.328	0.272	0.081
10-24	0.177	0.174	0.168	0.165	0.168	0.380	0.315	0.108
10-32	0.182	0.179	0.174	0.171	0.174	0.380	0.315	0.081
12-24	0.203	0.200	0.194	0.191	0.194	0.432	0.359	0.108
1/4-20	0.235	0.232	0.224	0.221	0.224	0.500	0.415	0.130
5/16-18	0.297	0.294	0.284	0.281	0.284	0.625	0.519	0.144
3/8-16	0.359	0.356	0.343	0.340	0.343	0.750	0.623	0.162
7/16-14	0.419	0.416	0.400	0.397	0.400	0.875	0.726	0.186
1/2-13	0.481	0.478	0.460	0.457	0.460	1.000	0.830	0.200

The minimum length of thread engagement should be equal to twice the diameter of the screw (to approach utilizing available screw strength). The hole diameter to ensure optimum performance should provide for 65% to 75% thread engagement.

