

TAPTITE® II RECOMMENDED PILOT HOLE SIZES FOR VARIOUS MATERIAL THICKNESSES																Reminc
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			
% 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	.0748	.034-.052	.0761	.076	.052-.073	.0767	.0763	.073-.095	.0773	.0781	.095-.169	.0779	.0781	
3-48	.020-.040	.0868	.0866	.040-.059	.0875	.0866	.059-.084	.0882	.089	.084-.110	.0888	.089	.110-.141	.0895	.089	
4-40	.022-.045	.0974	.098	.045-.067	.0982	.098	.067-.095	.099	.0995	.095-.126	.0998	.0995	.126-.157	.1006	.0995	
5-40	.025-.051	.1104	.1102	.051-.075	.1112	.111	.075-.106	.112	.113	.106-.141	.1128	.113	.141-.175	.1136	.113	
6-32	.028-.066	.1197	.120	.066-.083	.1207	.120	.083-.117	.1218	.122	.117-.152	.1228	.122	.152-.193	.1238	.125	
8-32	.033-.066	.1457	.1457	.066-.098	.1467	.147	.098-.141	.1478	.1476	.141-.180	.1488	.1496	.180-.230	.1498	.1496	
10-24	.038-.079	.1656	.166	.079-.114	.167	.1673	.114-.162	.1683	.1695	.162-.209	.1697	.1695	.209-.266	.171	.1719	
10-32	.038-.079	.1717	.1719	.079-.114	.1727	.173	.114-.162	.1738	.173	.162-.209	.1748	.1732	.209-.266	.1758	.177	
12-24	.043-.086	.1916	.191	.086-.130	.193	.1929	.130-.184	.1943	.196	.184-.238	.1957	.196	.238-.302	.197	.1969	
1/4-20	.050-.100	.2208	.221	.100-.150	.2224	.2244	.150-.213	.224	.2244	.213-.275	.2256	.2264	.275-.350	.2273	.228	
5/16-18	.062-.126	.2800	.2795	.126-.188	.2818	.2812	.188-.266	.2836	.2835	.266-.345	.2854	.2854	.345-.438	.2872	.2874	
3/8-16	.075-.150	.3384	.3386	.150-.225	.3405	.3386	.225-.319	.3425	.3425	.319-.413	.3445	.3455	.413-.525	.3466	.3465	
1/2-13	.100-.200	.455	.4531	.200-.300	.4575	.4531	.300-.425	.460	.4531	.425-.550	.4625	.4688	.550-.700	.465	.4688	

NOTES:
 APPLICATION DUTY CLASS is a general term used here to group material thicknesses in terms of screw diameters. For example, the average material thickness listed under "Medium-Heavy" equals 75% of the screw diameter.

TAPTITE® II SUGGESTED HOLE SIZES AT VARIOUS PERCENTAGES OF THREAD ENGAGEMENT															Reminc
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	
1/2-13	.4500	.4525	.4550	.4575	.4600	.4625	.4650	.4675	.4700	.4725	.4750	.4775	.4800	.4825	

(1) Pilot holes listed under 90% & 85% (thread percent) also recommended for single punch extruded holes. See suggested extruded hole chart.

NOTES:
 -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%. The chart indicates that a 10-32 screw in a .1738" hole size provides 80% thread engagement.
 -These holes are based on the U.S. basic thread depth of .6495 times the pitch and are calculated using nominal screw diameters.
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