

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 Thick-ness	Pilot Hole	Drill Size	Material Thick-ness	Pilot Hole	Drill Size	Material Thick-ness	Pilot Hole	Drill Size	Material Thick-ness	Pilot Hole	Drill Size	Material Thick-ness	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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