

**TAP-R RECOMMENDED PILOT HOLE SIZES - INCH SCREWS (in.)**

Material Thickness	Inch	.020-.055	.061-.122	.125-.245	.250-.312	.313-.500	.375-.499	.500-.625
	Approx U.S. Gauge	26-17	16-11	11-3	3-5/16"	5/16"-1/2"	3/8"-1/2"	1/2"-5/8"
Inch Nominal Screw Size DIA.-T.P.I.	Material	Pilot Hole Dia.	Pilot Hole Dia.	Pilot Hole Dia.	Pilot Hole Dia.	Pilot Hole Dia.	Pilot Hole Dia.	Pilot Hole Dia.
4-40	STEEL	.098	.102	.104				
	ALUMINIUM	.098	.100	.102				
6-32	STEEL	.120	.120	.125	.128			
	ALUMINIUM	.120	.120	.125	.125			
8-32	STEEL		.147	.150	.154			
	ALUMINIUM		.147	.150	.152			
10-24	STEEL		.166	.172	.177			
	ALUMINIUM		.166	.166	.170			
10-32	STEEL		.173	.177	.180			
	ALUMINIUM		.173	.173	.177			
12-24	STEEL		.193	.199	.203	.203		
	ALUMINIUM		.191	.196	.199	.203		
1/4-20	STEEL		.219	.224	.228	.234		
	ALUMINIUM		.219	.221	.224	.228		
5/16-18	STEEL			.281	.285	.285	.290	
3/8-16	STEEL				.348	.348	.354	.354

**TAP-R RECOMMENDED PILOT HOLE SIZES - METRIC SCREWS  
(mm)**

NOMINAL SCREW SIZE	PERCENT THREAD													
	100	95	*90	*85	80	75	70	65	60	55	50	45	40	35
	PILOT HOLE SIZE													
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

\*Pilot holes listed under 90% & 85% (Thread Percent) also recommended for single punch extruded holes.