



THE HIGH PERFORMANCE FASTENER FOR PLASTICS, PARTICLE BOARD, MASONITE AND WOOD

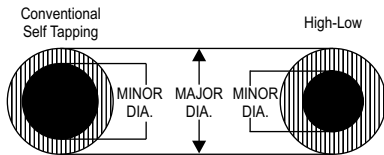
The Hi - Low fastener, with its unique thread form, improves fastener performance in a broad range of low density, materials such as plastics, wood, masonite and particle board.

This fastener is designed with a double lead, consisting of a high and a low thread, having a 30 included angle as compared to the conventional 60 included angle. The low thread has the 60 included angle and a height that is 40% to 50% of the high thread height.

REDUCED CRACKING, SPLITTING AND BOSS BREAKAGE

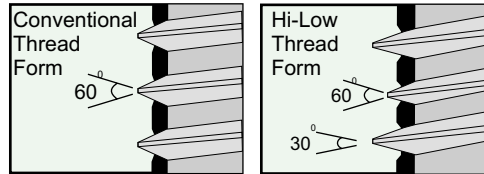
The superior performance of the Hi-Low fastener increases product quality and decreases costs. The 30 included angle of the high thread form reduces radial or bursting pressure to one - half of that generated by the conventional 60 included angle thread form. Boss cracking in plastic is dramatically reduced and smaller diameter bosses can often be specified. In wood applications, even when driving close to the edge, splitting is greatly reduced due to lower radial pressure.

INCREASED PULL-OUT STRENGTH

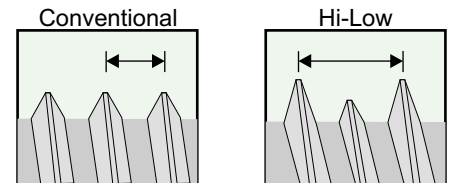


The Hi-Low screw thread configuration has a smaller minor diameter than a conventional screw. The high threads make a deeper cut into the material between the threads. There is also a greater amount of material in contact with the high, sharp thread and the axial shear area is increased. All of this contributes to greater resistance to pullout and stronger fastening.

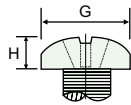
THREAD FORM



The thread of the Hi-Low fasteners have a unique shape that directs the displaced material upward, flowing it around the threads. Stress is directed upward and material cracking and splitting is, therefore, minimized.

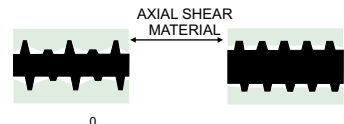


In forming mating threads in the work piece, the unique Hi-Low screw accommodates the displaced material between the widely spaced high threads, actually increasing thread engagement while minimizing outward pressure.

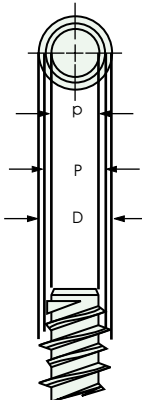


SCREW SIZE		M 2.0	M 2.5	M 3.0	M 3.5	M 4.0	M 5.0	M 6.0
G	HEAD DIAMETER	MAX. 3.50	4.10	5.50	6.00	7.00	9.00	10.50
		MIN. 3.10	3.70	5.00	5.50	6.50	8.40	9.80
H	HEAD HEIGHT	MAX. 1.40	1.80	2.15	2.45	2.75	3.45	4.10
		MIN. 1.20	1.60	1.85	2.15	2.45	3.15	3.70
	CROSS WIDTH DRIVE	REF. 2.20	2.60	3.50	3.80	4.10	4.80	6.20
		1	1	2	2	2	2	3

LOWER DRIVING, HIGHER STRIPPING TORQUES



The 30 included angle of the high thread displaces less material when it is driven into plastic or wood and, therefore, requires lower driving torques. A greater amount of material remains between the high threads increasing the stripping torques. Both these factors provide maximum protection against stripping problems.



SCREW SIZE	HIGH THREAD DIAMETER (D)		LOW THREAD DIAMETER (P)	POINT DIAMETER (d)	RECOMMENDED PILOT HOLE DIAMETER*	TORQUE lb-in**
	MAX.	MIN.				
3-28	2.667	2.413	1.981	1.549	1.981	6
4-24	2.921	2.667	2.184	1.676	2.184	10
5-20	3.175	3.022	2.540	1.981	2.514	12
6-19	3.683	3.429	2.743	2.159	2.743	18
7-19	4.013	3.759	3.302	2.413	3.175	20
8-19	4.138	4.064	3.302	2.540	3.251	26
10-16	4.953	4.699	3.683	2.667	3.657	36
11-16	3.175	5.334	3.810	3.022	3.810	50
12-16	3.683	5.334	4.241	3.327	4.216	61
13-16	5.842	5.588	4.572	2.540	4.572	70
1/4-15	6.604	6.350	5.080	4.267	5.080	84
5/16-14	8.051	7.797	3.810	5.232	6.350	189

* These hole sizes are tentative and are provided as a guide only. Actual hole size could vary depending on type of plastic, boss diameter and length of thread engagement.

** These torques are tentative. Actual torques depend on hole size, type of plastic, and thread engagement. For torques more than 40 lb-in., a hex head drive is recommended.