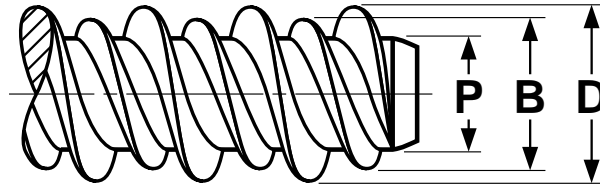


# Self-Tapping Screws *Thread Forming*

## High-Low Style



THREAD AND HOLE DIMENSIONS FOR HIGH-LOW THREAD FORMING SCREWS						Elco*, ANSI B18.6.4
Screw Size	D	B	P	Pilot Hole Diameter Flexural Modulus of Plastic		Minimum Torsional Strength, lb. in. (STEEL SCREWS ONLY)
	High Thread Diameter	Low Thread Diameter	Point Diameter	Up to 200,000 P.S.I.	200,000-400,000 P.S.I.	
2-32	.084-.090	.069	.050-.058	.0670	.0700	-
4-24	.105-.115	.086	.061-.070	.0810	.0860	4
5-20	.119-.125	.100	.073-.082	.0935	.0995	18
6-19	.135-.145	.108	.080-.090	.1015	.1100	13
8-18	.160-.170	.130	.095-.105	.1200	.1285	18
10-16	.185-.195	.145	.099-.110	.1360	.1440	30
12-16	.210-.220	.167	.125-.137	.1570	.1660	88
1/4-15	.250-.260	.200	.161-.175	.1890	.2010	56
<b>Tolerance on Length</b>			Up to 1 in., Incl.: +0, -3/64	Over 1 in.: +0, -1/16		

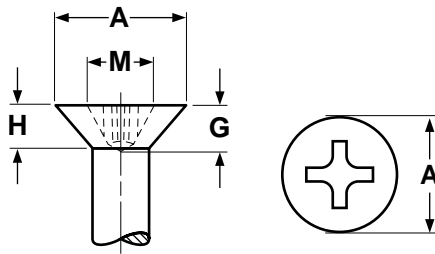
<b>Description</b>	A thread forming screw with a double-lead, consisting of a high and low thread. The lower thread varies in height from 1/3 to 1/2 that of the higher thread, which is sharper and flatter than a standard thread.
<b>Applications/ Advantages</b>	For use in plastic, nylon, wood or other low-density materials. Thread design reduces driving torques, enhances resistance to thread stripping, improves pullout strength and lessens risk of cracking the work piece.
<b>Material</b>	<b>Steel:</b> 1019-1022 or equivalent steel. <b>Stainless:</b> 410 martensitic stainless steel
<b>Heat Treatment</b>	<b>Steel:</b> Screws shall be quenched in liquid and then tempered by reheating to 650°F minimum. <b>Stainless:</b> Screws shall be annealed by heating to 1850-1950°F, held at least 1/2 hour and rapid air- or oil-quenched then reheating to 525°F minimum for at least 1 hour and air cooled to provide the required tensile, yield and hardness properties.
<b>Case Hardness</b>	<b>Steel:</b> Rockwell C45 - 50
<b>Case Depth (steel)</b>	No. 2 thru 6 diameter: .002 - .007 No. 8 thru 12 diameter: .004 - .009 1/4" diameter: .005 - .011
<b>Core Hardness (after tempering)</b>	<b>Steel:</b> Rockwell C28 - 36 <b>Stainless:</b> Rockwell C38 - 42
<b>Plating</b>	See Appendix-A

\*Elco is the original writer of high-low screw dimensions.

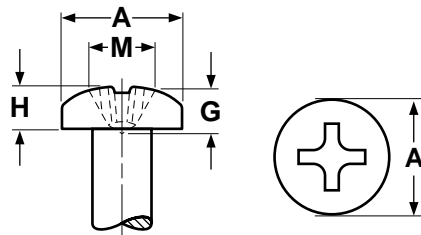
# High-Low Style

# Head Dimensions

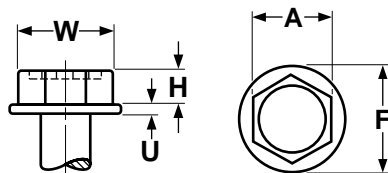
# Self-Tapping Screws



HEAD & DRIVE DIMENSIONS FOR PHILLIPS FLAT HIGH-LOW								
Nominal Size	A		H	M		G		Driver Size
	Head Diameter		Head Height	Recess Diameter		Recess Depth		
	Max	Min	Ref	Max	Min	Max	Min	
4	.225	.195	.062	.128	.115	.082	.066	1
6	.279	.244	.075	.174	.161	.095	.072	2
8	.332	.292	.091	.189	.176	.110	.087	2
10	.385	.340	.112	.204	.191	.125	.102	2



HEAD & DRIVE DIMENSIONS FOR PHILLIPS PAN HIGH-LOW									
Nominal Size	A		H		M		G		Driver Size
	Head Diameter		Head Height		Recess Diameter		Recess Depth		
	Max	Min	Max	Min	Max	Min	Max	Min	
2	.167	.155	.062	.053	.104	.091	.052	.034	1
4	.193	.180	.071	.062	.112	.099	.061	.043	1
5	.219	.205	.080	.070	.122	.109	.071	.053	1
6	.254	.240	.097	.087	.158	.145	.072	.046	2
8	.270	.256	.097	.087	.166	.153	.080	.055	2
10	.322	.306	.115	.105	.182	.169	.097	.071	2
1/4	.492	.473	.175	.162	.281	.268	.144	.118	3



HEAD & DRIVE DIMENSIONS FOR HEX WASHER HIGH-LOW									
Nominal Size	A		W	H		F		U	
	Width Across Flats		Width Across Corners	Height of Head		Diameter of Washer		Thickness of Washer	
	Max	Min	Min	Max	Min	Max	Min	Max	Min
4	.125	.120	.134	.055	.044	.177	.163	.016	.010
6	.187	.181	.202	.070	.058	.260	.240	.025	.015
8	.250	.244	.272	.093	.080	.328	.302	.025	.015
10	.250	.244	.272	.110	.096	.348	.322	.031	.019
12	.312	.305	.340	.155	.139	.432	.398	.039	.022
1/4	.375	.367	.409	.190	.172	.520	.480	.050	.030