

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	9
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	39
1/4-15	.250-.260	.200	.161-.175	.1890	.2010	56
Tolerance on Length			Up to 1 in., Incl.: +0, -3/64		Over 1 in.: +0, -1/16	

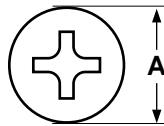
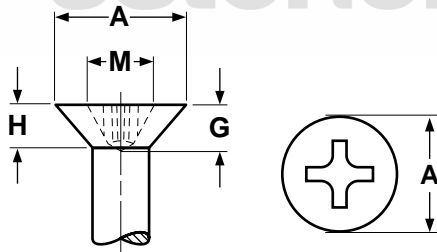
Description	A thread forming screw with a double-lead, consisting of a high and low thread. The lower thread varies in height from 1/3 to 1/2 that of the higher thread, which is sharper and flatter than a standard thread.
Applications/Advantages	For use in plastic, nylon, wood or other low-density materials.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

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

High-Low Style

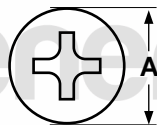
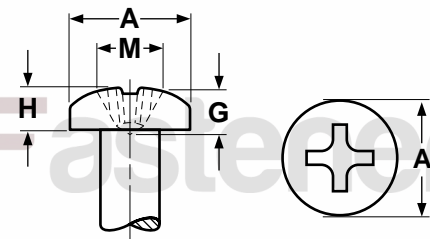
Head Dimensions

Self-Tapping Screws

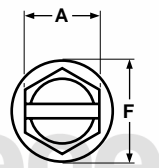
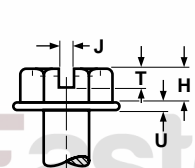
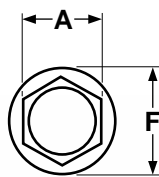
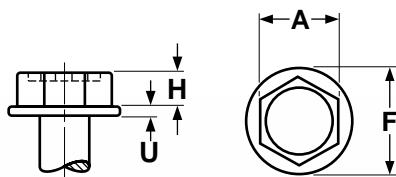


Nominal Size	A		H	M		G		Driver Size
	Head Diameter		Head Height	Recess Diameter		Recess Penetration Gaging Depth		
	Max	Min	Ref	Max	Min	Max	Min	
4	.225	.195	.062	.128	.115	.082	.066	1
6	.279	.244	.075	.174	.161	.095	.072	2
8	.332	.292	.091	.189	.176	.110	.087	2
10	.385	.340	.112	.204	.191	.125	.102	2
12	.438	.389	.122	.268	.255	.139	.116	3
1/4	.507	.452	.139	.283	.270	.154	.131	3

Undercut Flat head High-Low screws conform to ASME B 18.6.4 specifications (see page 8).



Nominal Size	A		H		M		G		Driver Size
	Head Diameter		Head Height		Recess Diameter		Recess Penetration Gaging 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
12	.373	.357	.133	.122	.199	.186	.113	.089	2
1/4	.492	.473	.175	.162	.281	.268	.144	.118	3



Nominal Size	A		T		J		H		F		U	
	Width Across Flats		Slot Depth		Slot Width		Height of Head		Diameter of Washer		Thickness of Washer	
	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
4	.125	.120	-	-	-	-	.055	.044	.177	.163	.016	.010
6	.187	.181	.049	.030	.043	.035	.070	.058	.260	.240	.025	.015
8	.250	.244	.053	.033	.048	.039	.093	.080	.328	.302	.025	.015
10	.250	.244	.074	.052	.054	.045	.110	.096	.348	.322	.031	.019
12	.312	.305	.103	.077	.067	.056	.155	.139	.432	.398	.039	.022
1/4	.375	.367	.111	.083	.075	.064	.190	.172	.520	.480	.050	.030