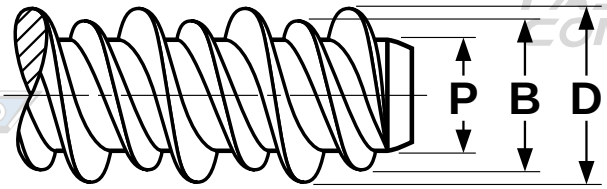
Self-Tapping Screws *Thread Forming* High-Low Style



Thread and Hole Dimensions for High-Low Thread Forming Screws

Elco*, ASME 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	-
3-28	.095 - .105	.078	.057 - .065	.0730	.0781	-
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
7-19	.148 - .158	.130	.089 - .100	.1200	.1250	18
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
5/16-14	.307 - .317	.250	.200 - .212	.2380	.2500	142
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 or 18-8 austenitic stainless steel
Heat Treatment	**Steel:** Screws shall be quenched in liquid and then tempered by reheating to 650° F minimum. **410 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 minimum
Case Depth (steel)	No. 2 thru 6 diameter: .002 - .007 No. 8 thru 12 diameter: .004 - .009 1/4" diameter and larger: .005 - .011
Core Hardness	**Steel (after tempering):** Rockwell C28 - 36 **410 Stainless (after tempering):** Rockwell C38 - 42 **18-8 Stainless:** Rockwell B100 (approximate)
Plating	See Appendix-A

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