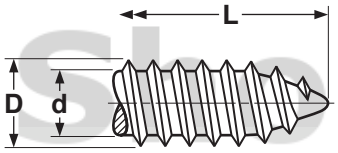
THREAD FORMING

Type AB



Threads For Self-Tapping Screws Type AB

ASME B18.6.3-2013

Nominal Size or Basic Screw Diameter		Threads Per Inch	D		d		L		Minimum Torsional Strength, lb.- in. (STEEL SCREWS ONLY)
			Major Diameter		Minor Diameter		Minimum Practical Screw Length		
			Max	Min	Max	Min	90° Heads	Csk Heads	
2	.0860	32	.088	.082	.064	.060	3/16	7/32	4
3	.0990	28	.101	.095	.075	.071	3/16	1/4	9
4	.1120	24	.114	.108	.086	.082	7/32	9/32	13
5	.1250	20	.130	.123	.094	.090	1/4	5/16	18
6	.1380	20	.139	.132	.104	.099	9/32	11/32	24
7	.1510	19	.154	.147	.115	.109	5/16	3/8	30
8	.1640	18	.166	.159	.122	.116	5/16	3/8	39
10	.1900	16	.189	.182	.141	.135	3/8	7/16	56
12	.2160	14	.215	.208	.164	.157	7/16	21/32	88
1/4	.2500	14	.246	.237	.192	.185	1/2	19/32	142
5/16	.3125	12	.315	.306	.244	.236	5/8	3/4	290
3/8	.3750	12	.380	.371	.309	.299	3/4	29/32	590
Tolerance on Length			Up to 1" Incl.: ±0.03				Over 1": ±0.05		

Description	A thread forming tapping screw with spaced threads and a gimlet point.		
Applications/ Advantages	For self starting in thin (.015-.050 thick) metal or resin-filled plywood. Recommended over a Type-A, particularly in brittle materials.	For self starting in thin stainless sheet when corrosion resistance is required.	For self-starting in thin stainless sheet when a harder material is preferred.
Material	**Steel**: AISI 1016 - 1024 or equivalent steel	**18-8 Stainless**: Austenitic 18-8 stainless steel	**410 Stainless**: Martensitic 410 stainless steel
Heat Treatment	Screws shall be quenched in liquid and then tempered by reheating to 650°F minimum.	-	***410 SS:*** An ideal method of hardening 410 stainless screws is a bright hardening process, which typically involves a vacuum furnace. Another key factor affecting hardness is the chemistry of the fastener--most elements have maximum values but not minimums. This fact can contribute to hardness variance.
Surface Hardness	Steel: Rockwell C45 minimum	-	-
Case Depth (Steel only)	No. 4 thru 6 diameter: .002 - .007 No. 8 thru 12 diameter: .004 - .009 1/4" and larger: .005 - .011	-	-
Hardness	**Steel**: Core: Rockwell C28 - 38 (after tempering)	**18-8** Stainless: Rockwell B90 - C20 (approx.)	**410**: Rockwell C38 - 46 (approx.)
Plating	See Appendix-A for plating information.		