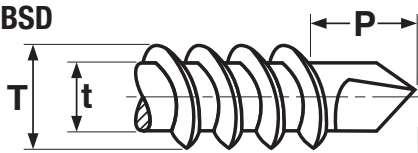


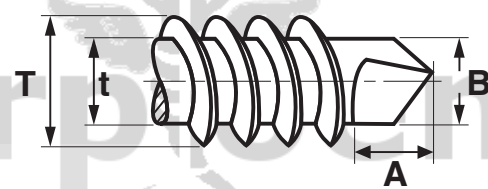
SELF-DRILLING

Type-BSD
Type-CSD

Type-BSD



5/16 & 3/8 Diameter
#3 Point



SELF-DRILLING SCREWS, TYPE BSD (SPACED THREAD)														*SAE J78-2013
Nominal Size or Basic Screw Diameter	Threads Per Inch	T		t		P		Minimum Practical Nominal Screw Lengths, Formed Points				Minimum Torsional Strength, lb.- in. (STEEL SCREWS ONLY)		
		Major Diameter		Minor Diameter		Protrusion Allowance		90° Head, #2 Pt	Csk Head, #2 Pt	90° Head, #3 Pt	Csk Head, #3 Pt			
		Max	Min	Max	Min	#2 Pt.	#3 Pt.							
2*	.0860	32	.088	.084	.064	.060	.125	-	1/4	5/16	-	-	-	
4	.1120	24	.114	.110	.086	.082	.163	-	5/16	3/8	-	-	14	
6	.1380	20	.139	.135	.104	.099	.190	.220	5/16	3/8	3/8	7/16	24	
7*	.1510	19	.153	.146	.113	.109	.137	.157	5/16	3/8	3/8	7/16	-	
8	.1640	18	.166	.161	.122	.116	.211	.251	3/8	7/16	7/16	1/2	42	
10	.1900	16	.189	.183	.141	.135	.235	.290	7/16	1/2	1/2	9/16	61	
12	.2160	14	.215	.209	.164	.157	.283	.353	1/2	5/8	1/2	5/8	92	
1/4	.2500	14	.246	.240	.192	.185	.318	.393	1/2	5/8	1/2	5/8	150	

*SAE J78 does not include Specifications for #2 or #7 diameter drill screws.

SPACED THREAD SELF DRILLING SCREWS - 5/16 & 3/8 DIAMETERS, #3 POINT											
Nominal Size or Basic Screw Diameter	Threads Per Inch	T		t		A		B			
		Major Diameter		Minor Diameter		Drill Point Length		Drill Point Diameter			
		Max	Min	Max	Min	Max	Min	Max	Min		
5/16	.3125	12	.315	.307	.272	.263	.421	.361	.270	.265	
3/8	.3750	12	.380	.370	.308	.298	.354	.314	.338	.330	

	Steel	Stainless
Description	<p>Type BSD: A tapping screw with spaced threads and a drill point which drills its own hole.</p> <p>Type CSD: A thread forming screw with machine screw thread pitch and a drill point which drills its own hole.</p> <p>Both types allow the screw to form mating threads and produce a complete fastening system in a single operation.</p>	
Applications/ Advantages	<p>Type BSD: May be used to attach plywood, soft woods or composition board to metal, or attach metal to metal.</p> <p>Type CSD: The finer thread pitch reduces friction and driving torques. Type-CSD screws are normally used with thicker materials.</p> <p>All self-drilling screws offer economical benefits: reduces labor and tooling costs; reduces or eliminates drill bits and taps.</p>	<p>The 18-8 stainless drill screw offers superior corrosion resistance while the 410 stainless screw will drill through harder material than the 18-8. The hardness of the material to be drilled should be a minimum of 10-20 Rockwell hardness points less than the screw's hardness.</p> <p>Minimum torques are the same for stainless and steel self-drill screws. Drill time is 2.5 seconds for a 1mm thick plate.</p>
Material	AISI 1016 - 1024 or equivalent steel	410, 18-8 or 316 stainless steel
Heat Treatment	Screws shall be quenched in liquid and then tempered by reheating to 625°F minimum.	<p>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.</p> <p>18-8 & 316 SS are only hardenable by cold-working.</p>
Case Hardness	Rockwell C52 -58	-
Case Depth	<p>No. 2 thru 6 diameter: .002 - .007</p> <p>No. 8 thru 12 diameter: .004 - .009</p> <p>1/4" diameter and larger: .005 - .011</p>	-
Hardness	Core: Rockwell C32 - 40 (after tempering)	<p>410 SS: Rockwell C38 - 46 (approx.)</p> <p>18-8 & 316 SS: Rockwell B100 (approx.)</p>
Plating	White Ceramic Coating 1,000hrs	Stainless drill screws are usually supplied plain.