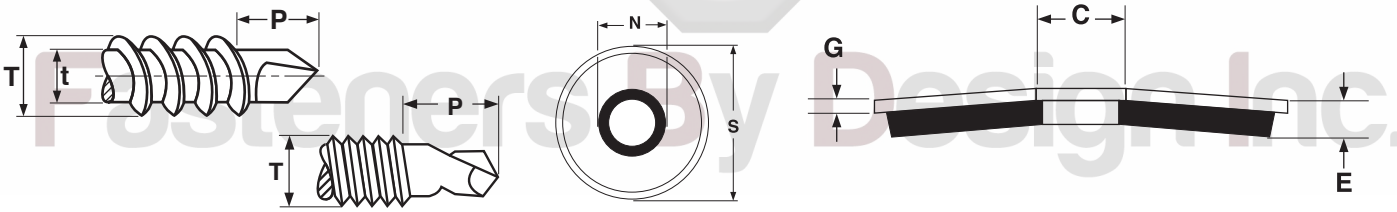
SELF-DRILLING

With Neo-EPDM Washers



Self-Drilling Screws, Type BSD

SAE J78-2013

Nominal Size or Basic Screw Diameter		Threads Per Inch	T Major Diameter		t Minor Diameter		P Protrusion Allowance		Minimum Practical Nominal Screw Lengths, Formed Points				Minimum Torsional Strength, lb.- in. (STEEL SCREWS ONLY)
			Max	Min	Max	Min	#2 Pt.	#3 Pt.	90° Head, #2 Pt	Csk Head, #2 Pt	90° Head, #3 Pt	Csk Head, #3 Pt	
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	.300	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
12	.2160	24	.216	.2094	-	-	.223	.293	1/2	5/8	1/2	5/8	100
1/4	.2500	14	.246	.240	.192	.185	.318	.393	1/2	5/8	1/2	5/8	150

Coarse Thread Self Drilling Screws - 5/16 & 3/8 Diameters, #3 Point

Nominal Size or Basic Screw Diameter		Threads Per Inch	T Major Diameter		t Minor Diameter		A Drill Point Length		B 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

Neo-EPDM Washers used with Self Piercing & Self Drilling Screws

For Use with Screw of this Nominal Diameter	S Outside Diameter of Steel Section		N Inside Diameter of Steel Section		G Thickness of Steel Section		E Total Thickness (EPDM & Steel)	
	Max	Min	Max	Min	Max	Min	Max	Min
8	.507	.491	.212	.196	.039	.023	.125	.093
10	.507	.491	.212	.196	.039	.023	.125	.093
12	.558	.542	.243	.227	.039	.023	.125	.093
14 or 1/4	.617	.601	.275	.259	.039	.023	.125	.093
5/16	.750	.720	.345	.315	.040	.032	.116	.086
3/8	.750	.720	.449	.419	.040	.032	.110	.080

Description	A hex washer head tapping screw with spaced threads and a drill point which drills its own hole. Beneath the head is a thin conically-shaped circular steel washer, bonded to a similarly shaped rubber-like piece which as a slightly smaller outside and inside diameter. When these washers are assembled (rubber side down) to self-piercing or self-drilling screws, those fasteners become “sealing screws”.	
Applications/ Advantages	When properly assembled, this washer: (a) offers protection against leakage; (b) provides load bearing qualities superior to that of a regular flat washer; (c) reduces the chance of the fastening becoming loose due to vibration; (d) minimizes damage to the mating surface caused by contact with a steel washer. Sealing screws may be used to attach roofing or metal walls to steel frames. Consult a self-drilling screw selection chart for the correct size.	
Material	***Steel***	***Stainless***
	Screw: AISI 1016-1024 or equivalent steel; ***Steel Section of washer***: 20 gauge steel; ***Elastic Section of washer***: Style 40 EPDM sheet	***Screw:*** 18-8 or 410 stainless; ***Metal Section of washer***: 18-8 or 410 stainless steel; ***Elastic Section of washer***: Style 40 EPDM sheet
Heat Treatment	Screws are quenched in liquid and then tempered by reheating to 625°F min.	-
Case Hardness	***Screw***: Rockwell C52 -58 ***Washer***: EPDM ***Material***: Shore A 65 - 75 (Durometer scale)	-
Case Depth of Screw	***No. 4 and 6 diameter:*** .002 - .007 ***No. 8 thru 12 diameter:*** .004 - .009 ***1/4” diameter and larger:*** .005 - .011	-
Core Hardness of Screw	Rockwell C32 - 40 (after tempering)	-
Plating	See Appendix-A for plating information.	Stainless parts are usually supplied without additional finish.