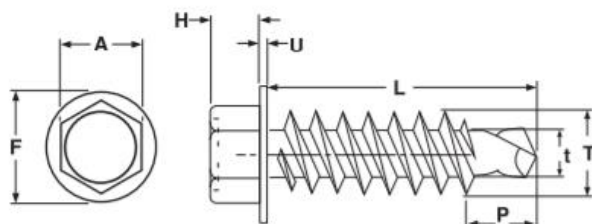


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HEX "HIGH HAT" WASHER HEAD SELF DRILLING & TAPPING SCREWS – STEEL ZINC

The following Specification Sheet applies to all Hex "High Hat" Washer Head Self Drilling & Tapping Screws – Steel Zinc in our JTEKDHH series of screws.



HIGH HEAD HEX WASHER SELF-DRILLING SCREWS, SPACED THREAD

Nominal Screw Size & Threads per Inch	A		H		F		T		t		Drill Point Size	P	Drilling Thickness	
	Width Across Head		Head Height		Washer Diameter		Major Diameter		Minor Diameter			Protrusion Allowance		
	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min		Max	Min	
10-16	.312	.305	.130	.125	.414	.384	.189	.183	.141	.135	3	.300	.175	.110

Description	An integrally formed hex washer head screw with a drill point. The hex section of the head is taller than a standard hex washer head of the same diameter. Thread design is spaced (like a type-BSD drill screw).
Applications/ Advantages	The high head design provides greater stability while driving the screw. Intended to be used in heavier duty (up to 7 gauge) steel.
Material	AISI 1016 - 1024 or equivalent steel
Heat Treatment	Fasteners are heat treated in a carbonitriding or gas-carburizing system at a minimum temperature of 625°F, or in a cyaniding system (with consent of the buyer) at a minimum temperature of 450°F.
Case Hardness	Rockwell C 50 - 56
Case Depth	#10 Diameter: .004 - .009
Core Hardness	Rockwell C32 - 40
Plating	High head hex washer self-drilling screws are usually supplied with a clear zinc finish.

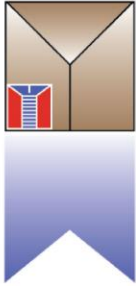
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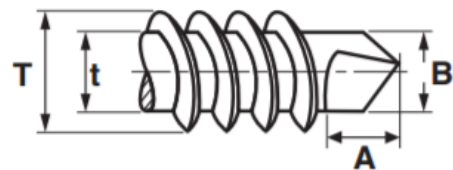
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THREAD DIMENSIONS

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						
			Max	Min	Max	Min	#2 Pt.	#3 Pt.	90° Head, #2 Pt	Csk Head, #2 Pt	90° Head, #3 Pt	Csk Head, #3 Pt	
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	.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
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 #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

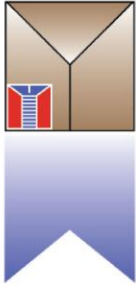
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**TYPE BSD SELF-DRILLING SCREW
SELECTION CHART**

Nominal Screw Size	Point Number	Recommended Panel Thickness, in.	
		Min.	Max.
4	2	.035	.080
6	2	.035	.090
8	2	.035	.100
10	2	.035	.110
10	3	.110	.175
12	3	.110	.210
1/4	3	.110	.220

This table is only a guide and does not constitute a warranty of any type.

	Steel	Stainless
Description	Type BSD: A tapping screw with spaced threads and a drill point which drills its own hole. Type CSD: A thread forming screw with machine screw thread pitch and a drill point which drills its own hole. Both types allow the screw to form mating threads and produce a complete fastening system in a single operation.	
Applications/ Advantages	Type BSD: May be used to attach plywood, soft woods or composition board to metal, or attach metal to metal. Type CSD: The finer thread pitch reduces friction and driving torques. Type-CSD screws are normally used with thicker materials. All self-drilling screws offer economical benefits: reduces labor and tooling costs; reduces or eliminates drill bits and taps.	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. Minimum torques are the same for stainless and steel self-drill screws. Drill time is 2.5 seconds for a 1mm thick plate.
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.	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. 18-8 & 316 are only hardenable by cold-working.
Case Hardness	Rockwell C52 -58	-
Case Depth	No. 4 and 6 diameter: .002 - .007 No. 8 thru 12 diameter: .004 - .009 1/4" diameter and larger: .005 - .011	-
Hardness	Core: Rockwell C32 - 40 (after tempering)	410 SS: Rockwell C38 - 46 (approx.) 18-8 & 316 SS: Rockwell B100 (approx.)
Plating	See Appendix-A for plating information.	Stainless drill screws are usually supplied plain.

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