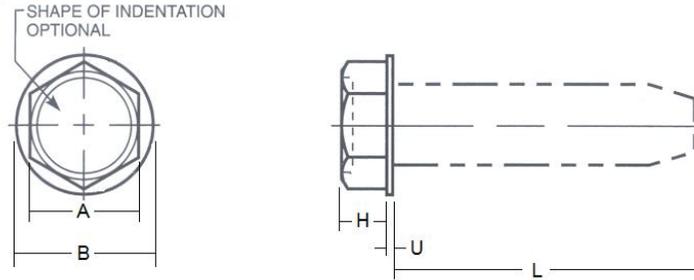


Self-Drilling Screw, Hex Washer Head, BSD Thread, Zinc

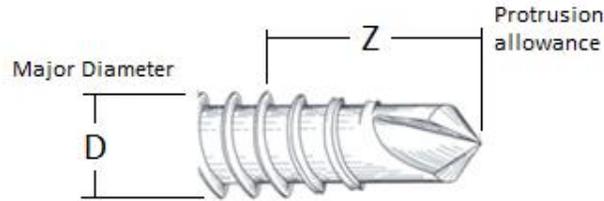
This product standard contains the required dimensional, mechanical, performance, and chemical characteristics of the products shown in this purchase order (as applicable to the product). Unless specified below, current revisions of national or international standards shall be applicable as of the date of Fastenal's purchase order and must be adhered to in their entirety. If the order received does not meet these requirements, corrective action may be issued which could jeopardize your status as an approved supplier to Fastenal.



Mitrex
Recommendation

Nominal Size	A		H		B		U	
	Width Across Flats		Head Height		Washer Diameter		Washer Thickness	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
#4	0.188	0.181	0.060	0.049	0.243	0.225	0.019	0.011
#6	0.250	0.244	0.093	0.080	0.328	0.302	0.025	0.015
#8	0.250	0.244	0.110	0.096	0.348	0.322	0.031	0.019
#10	0.312	0.305	0.120	0.105	0.414	0.384	0.031	0.019
#12	0.312	0.305	0.155	0.139	0.432	0.398	0.039	0.022
1/4 (#14)	0.375	0.367	0.190	0.172	0.520	0.480	0.050	0.030
5/16	0.500	0.489	0.230	0.208	0.676	0.624	0.055	0.035
3/8	0.562	0.551	0.295	0.270	0.780	0.720	0.063	0.037

RECORD OF REVISION CHANGES TO THIS DOCUMENT ARE LOCATED ON THE LAST PAGE



Nominal Size	Type BSD							Point Diameter		
	Threads per Inch	D		Minor Diameter		Z	Max.			Min.
		Major Diameter				Protrusion				
		Max.	Min.	Max.	Min.	Ref.			Max.	
#4	24	.114	.110	.086	.082	.163	.091	.087		
#6	20	.139	.135	.104	.099	.190	.116	.110		
#8	18	.166	.161	.122	.116	.211	.136	.130		
#10	16	.189	.183	.141	.135	.300	.156	.150		
#12	14	.215	.209	.164	.157	.353	.183	.177		
1/4 (#14)	14	.246	.240	.192	.185	.393	.222	.217		
5/16	12	.314	.305	.244	.236	.421	.274	.268		
3/8	12	.380	.370	.308	.298	-	.338	.330		

Length Tolerance	
Nominal Screw Length	Tolerance
Up to 3/4", inclusive	-0.03
Over 3/4" to 1-1/2", inclusive	-0.05
Over 1-1/2"	-0.06

5/16 Test Performance				
Test Plate Thickness	Axial Loading	Drill Speed	Max. Time to Drill	Min. Torsional Strength
Inch	lbs.	RPM	Seconds	lb-in
0.063	44.974	1,800	5.0	289.5

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Date: February 7, 2023	FASTENAL	SDS.HW.BSD.Z

Specification Requirements:

- Dimensions: ASME B18.6.3
SAE J78
Fully Threaded
- Material: SAE J78
- Mechanical: SAE J78
- Performance: #4 – 1/4: SAE J78
3/8” shall have the same performance as #14
5/16”: See table above
- Drive Style: Hex
- Threads: SAE J78
- Point Size: Sizes #4 to #8: Style #2
Sizes #10 to 3/8”: Style #3
**Exception: Screws 1/2 in length and under shall have a #2 point
- Finish: Fe/Zn 3AN per ASTM F1941/F1941M
- Hydrogen Embrittlement: Baking to relieve internal hydrogen embrittlement is mandatory and shall be performed after electroplating prior to the application of conversion finish where baking temperatures can damage the conversion film. Baking may be allowed after conversion finish provided temperature does not alter performance. Part temperature shall reach 375°F to 425°F (190°C to 220°C) for a minimum of 4 hours, as soon as practical after plating.
Hydrogen Embrittlement test results shall be maintained and supplied to Fastenal upon request.

Revision Level Changes to this Document

Document Name	Revision Level	Revision Date	Rationale for Revision
SDS.HW.BSD.Z	03	1/10/2019	Revised dimensional table.
SDS.HW.BSD.Z	04	2/7/2023	Revised baking temperature requirement.

The rationale above may not include all of the changes within each revision. A complete review of the Fastenal Product Standard is required.