

PRODUCT SUBMITTAL

Submitted to:

Project:

Date of Submittal:

Submitted by, Contact name:

Company:

Address:

Phone:

Email:

Approved

Approved as Noted

Not Approved

Comments:

By:

Date:

List of items from Table A submitted for the project:

--

Product Family: S-DHF - SCORPION-Self-Drilling Hex Washer Head Fine Thread

TABLE A

Item Number	Screw Size (#)	Length	Head Style	Head/Washer Diameter	TPI	Drill Point Size	Coating	Maximum Total Drilling Thickness	Drive Type	Bulk/Collated Quantity	Special Features
T1HW14078WXT	14	7/8-in.	Hex Washer	0.415-in	14	1	NanoGard®	0.110-in	5/16-in Hex	2,500	EPDM Washer
T2HW8012	8	1/2-in.	Hex Washer	0.335-in	18	2	Clear Zinc	0.100-in	1/4-in Hex	10,000	
T2HW8034	8	3/4-in.	Hex Washer	0.335-in	18	2	Clear Zinc	0.100-in	1/4-in Hex	10,000	
T2HW8100	8	1-in.	Hex Washer	0.335-in	18	2	Clear Zinc	0.100-in	1/4-in Hex	7,500	
T2HW8114	8	1-1/4-in.	Hex Washer	0.335-in	18	2	Clear Zinc	0.100-in	1/4-in Hex	5,000	
T2HW8112	8	1-1/2-in.	Hex Washer	0.335-in	18	2	Clear Zinc	0.100-in	1/4-in Hex	5,000	
T3HW10012	10	1/2-in.	Hex Washer	0.399-in	16	3	Clear Zinc	0.175-in	5/16-in Hex	10,000	
T3HW10058	10	5/8-in.	Hex Washer	0.399-in	16	3	Clear Zinc	0.175-in	5/16-in Hex	7,500	
T3HW10034	10	3/4-in.	Hex Washer	0.399-in	16	3	Clear Zinc	0.175-in	5/16-in Hex	8,000	
T3HW100345M	10	3/4-in.	Hex Washer	0.399-in	16	3	Clear Zinc	0.175-in	5/16-in Hex	5,000	
T3HHW10034	10	3/4-in.	High Hex Washer	0.399-in	16	3	Clear Zinc	0.175-in	5/16-in Hex	8,000	
T3HHW100345M	10	3/4-in.	High Hex Washer	0.399-in	16	3	Clear Zinc	0.175-in	5/16-in Hex	5,000	
T3HHW10075	10	3/4-in.	High Hex Washer	0.399-in	16	3	Clear Zinc	0.175-in	5/16-in Hex	5,000	
T3HW10034WXT	10	3/4-in.	Hex Washer	0.399-in	16	3	NanoGard®	0.175-in	5/16-in Hex	5,000	EPDM Washer
T3HW10100	10	1-in.	Hex Washer	0.399-in	16	3	Clear Zinc	0.175-in	5/16-in Hex	5,000	
T3HW10100WXT	10	1-in.	Hex Washer	0.399-in	16	3	NanoGard®	0.175-in	5/16-in Hex	4,000	EPDM Washer
T3HW10112	10	1-1/2-in.	Hex Washer	0.399-in	16	3	Clear Zinc	0.175-in	5/16-in Hex	3,000	
T3HW10112BWX	10	1-1/2-in.	Hex Washer	0.399-in	16	3	NanoGard®	0.175-in	5/16-in Hex	2,500	EPDM Washer
T3HW10112WXT	10	1-1/2-in.	Hex Washer	0.399-in	16	3	NanoGard®	0.175-in	5/16-in Hex	2,500	EPDM Washer
T3HW10114	10	1-1/4-in.	Hex Washer	0.399-in	16	3	Clear Zinc	0.175-in	5/16-in Hex	3,500	
T3HW10114WXT	10	1-1/4-in.	Hex Washer	0.399-in	16	3	NanoGard®	0.175-in	5/16-in Hex	2,500	EPDM Washer
T3HW10200	10	2-in.	Hex Washer	0.399-in	16	3	Clear Zinc	0.175-in	5/16-in Hex	2,500	
T3HW10200WXT	10	2-in.	Hex Washer	0.399-in	16	3	NanoGard®	0.175-in	5/16-in Hex	1,500	EPDM Washer
T3HW10212	10	2-1/2-in.	Hex Washer	0.399-in	16	3	Clear Zinc	0.175-in	5/16-in Hex	2,000	
T3HW10212WXT	10	2-1/2-in.	Hex Washer	0.399-in	16	3	NanoGard®	0.175-in	5/16-in Hex	1,000	EPDM Washer
T3HW10300	10	3-in.	Hex Washer	0.399-in	16	3	Clear Zinc	0.175-in	5/16-in Hex	1,500	
T3HW10300WXT	10	3-in.	Hex Washer	0.399-in	16	3	NanoGard®	0.175-in	5/16-in Hex	1,000	EPDM Washer
T3HW12034	12	3/4-in.	Hex Washer	0.415-in	14	3	Clear Zinc	0.210-in	5/16-in Hex	5,000	
T3HW12034WXT	12	3/4-in.	Hex Washer	0.415-in	14	3	NanoGard®	0.210-in	5/16-in Hex	3,500	EPDM Washer
T3HHW12034	12	3/4-in.	High Hex Washer	0.415-in	14	3	Clear Zinc	0.210-in	5/16-in Hex	5,000	
T3HW12100	12	1-in.	Hex Washer	0.415-in	14	3	Clear Zinc	0.210-in	5/16-in Hex	4,000	
T3HW12100WXT	12	1-in.	Hex Washer	0.415-in	14	3	NanoGard®	0.210-in	5/16-in Hex	3,000	EPDM Washer
T3HW12112	12	1-1/2-in.	Hex Washer	0.415-in	14	3	Clear Zinc	0.210-in	5/16-in Hex	3,000	
T3HW12112BWX	12	1-1/2-in.	Hex Washer	0.415-in	14	3	NanoGard®	0.210-in	5/16-in Hex	1,000	EPDM Washer
T3HW12112WXT	12	1-1/2-in.	Hex Washer	0.415-in	14	3	NanoGard®	0.210-in	5/16-in Hex	2,000	EPDM Washer
T3HW12114	12	1-1/4-in.	Hex Washer	0.415-in	14	3	Clear Zinc	0.210-in	5/16-in Hex	3,000	
T3HW12114WXT	12	1-1/4-in.	Hex Washer	0.415-in	14	3	NanoGard®	0.210-in	5/16-in Hex	2,500	EPDM Washer
T3HW12200	12	2-in.	Hex Washer	0.415-in	14	3	Clear Zinc	0.210-in	5/16-in Hex	2,000	
T3HW12200BWX	12	2-in.	Hex Washer	0.415-in	14	3	NanoGard®	0.210-in	5/16-in Hex	1,500	EPDM Washer
T3HW12200WXT	12	2-in.	Hex Washer	0.415-in	14	3	NanoGard®	0.210-in	5/16-in Hex	1,500	EPDM Washer
T3HW12212	12	2-1/2-in.	Hex Washer	0.415-in	14	3	Clear Zinc	0.210-in	5/16-in Hex	1,000	
T3HW12212WXT	12	2-1/2-in.	Hex Washer	0.415-in	14	3	NanoGard®	0.210-in	5/16-in Hex	1,000	EPDM Washer
T3HW12300	12	3-in.	Hex Washer	0.415-in	14	3	Clear Zinc	0.210-in	5/16-in Hex	1,000	
T3HW12300BWX	12	3-in.	Hex Washer	0.415-in	14	3	NanoGard®	0.210-in	5/16-in Hex	1,000	EPDM Washer
T3HW12300WXT	12	3-in.	Hex Washer	0.415-in	14	3	NanoGard®	0.210-in	5/16-in Hex	1,000	EPDM Washer
T3HW12400BWX	12	4-in.	Hex Washer	0.415-in	14	3	NanoGard®	0.210-in	5/16-in Hex	1,000	EPDM Washer
T3HW14034	14	3/4-in.	Hex Washer	0.500-in	14	3	Clear Zinc	0.220-in	3/8-in Hex	4,000	
T3HW14034WXT	14	3/4-in.	Hex Washer	0.500-in	14	3	NanoGard®	0.220-in	3/8-in Hex	3,000	EPDM Washer
T3HW14100	14	1-in.	Hex Washer	0.500-in	14	3	Clear Zinc	0.220-in	3/8-in Hex	3,000	
T3HW14100WXT	14	1-in.	Hex Washer	0.500-in	14	3	NanoGard®	0.220-in	3/8-in Hex	2,500	EPDM Washer
T3HW14112	14	1-1/2-in.	Hex Washer	0.500-in	14	3	Clear Zinc	0.220-in	3/8-in Hex	2,000	
T3HW14112WXT	14	1-1/2-in.	Hex Washer	0.500-in	14	3	NanoGard®	0.220-in	3/8-in Hex	2,000	EPDM Washer
T3HW14114	14	1-1/4-in.	Hex Washer	0.500-in	14	3	Clear Zinc	0.220-in	3/8-in Hex	2,000	
T3HW14114WXT	14	1-1/4-in.	Hex Washer	0.500-in	14	3	NanoGard®	0.220-in	3/8-in Hex	2,000	EPDM Washer
T3HW1412034	14	3/4-in.	Hex Washer	0.500-in	14	3	Yellow Zinc	0.220-in	3/8-in Hex	4,000	
T3HW14200	14	2-in.	Hex Washer	0.500-in	14	3	Clear Zinc	0.220-in	3/8-in Hex	1,500	
T3HW14200WXT	14	2-in.	Hex Washer	0.500-in	14	3	NanoGard®	0.220-in	3/8-in Hex	1,500	EPDM Washer
T3HW14212	14	2-1/2-in.	Hex Washer	0.500-in	14	3	Clear Zinc	0.220-in	3/8-in Hex	1,000	
T3HW14212WXT	14	2-1/2-in.	Hex Washer	0.500-in	14	3	NanoGard®	0.220-in	3/8-in Hex	1,000	EPDM Washer
T3HW14300	14	3-in.	Hex Washer	0.500-in	14	3	Clear Zinc	0.220-in	3/8-in Hex	1,000	
T3HW14400	14	4-in.	Hex Washer	0.500-in	14	3	Clear Zinc	0.220-in	3/8-in Hex	750	
T3HW14400WXT	14	4-in.	Hex Washer	0.500-in	14	3	NanoGard®	0.220-in	3/8-in Hex	750	EPDM Washer
T3HW14500	14	5-in.	Hex Washer	0.500-in	14	3	Clear Zinc	0.220-in	3/8-in Hex	500	
T3HW14500BWX	14	5-in.	Hex Washer	0.500-in	14	3	NanoGard®	0.220-in	3/8-in Hex	500	EPDM Washer
T3HW14500WXT	14	5-in.	Hex Washer	0.500-in	14	3	NanoGard®	0.220-in	3/8-in Hex	500	EPDM Washer
T3HW14600	14	6-in.	Hex Washer	0.500-in	14	3	Clear Zinc	0.220-in	3/8-in Hex	250	
T3HW14600WXT	14	6-in.	Hex Washer	0.500-in	14	3	NanoGard®	0.220-in	3/8-in Hex	250	EPDM Washer
T4HW12078	12	7/8-in.	Hex Washer	0.415-in	24	4	Clear Zinc	0.250-in	5/16-in Hex	5,000	Slotted Shank
T4HW12078WXT	12	7/8-in.	Hex Washer	0.415-in	24	4	NanoGard®	0.250-in	5/16-in Hex	3,000	Slotted Shank, EPDM Washer
T4HW12078XT	12	7/8-in.	Hex Washer	0.415-in	24	4	NanoGard®	0.250-in	5/16-in Hex	5,000	Slotted Shank
T4HW12112WXT	12	1-1/2-in.	Hex Washer	0.415-in	24	4	NanoGard®	0.250-in	5/16-in Hex	2,000	Slotted Shank, EPDM Washer
T4HW12112XT	12	1-1/2-in.	Hex Washer	0.415-in	24	4	NanoGard®	0.250-in	5/16-in Hex	2,500	Slotted Shank
T4HW12114WXT	12	1-1/4-in.	Hex Washer	0.415-in	24	4	NanoGard®	0.250-in	5/16-in Hex	2,500	Slotted Shank, EPDM Washer
T4HW12114XT	12	1-1/4-in.	Hex Washer	0.415-in	24	4	NanoGard®	0.250-in	5/16-in Hex	3,000	Slotted Shank
T4HW12200WXT	12	2-in.	Hex Washer	0.415-in	24	4	NanoGard®	0.250-in	5/16-in Hex	1,500	Slotted Shank, EPDM Washer
T4HW12200XT	12	2-in.	Hex Washer	0.415-in	24	4	NanoGard®	0.250-in	5/16-in Hex	2,000	Slotted Shank
T4HW14112WXT	14	1-1/2-in.	Hex Washer	0.500-in	20	4	NanoGard®	0.250-in	3/8-in Hex	2,000	Slotted Shank, EPDM Washer
T5HW12112WXT	12	1-1/2-in.	Hex Washer	0.415-in	24	5	NanoGard®	0.500-in	5/16-in Hex	2,000	Slotted Shank EPDM Washer
T5HW12112XT	12	1-1/2-in.	Hex Washer	0.415-in	24	5	NanoGard®	0.500-in	5/16-in Hex	2,500	Slotted Shank
T5HW12114WXT	12	1-1/4-in.	Hex Washer	0.415-in	24	5	NanoGard®	0.500-in	5/16-in Hex	2,500	Slotted Shank, EPDM Washer

Prefixes: PP = 1-lb, FP = 5-lb, CP = Count Pack

Item Numbers with "W" indicate EPDM washer is included.

(Continued on next page)

Product Family: S-DHF - SCORPION-Self-Drilling Hex Washer Head Fine Thread - Continued

TABLE A - Continued

Item Number	Screw Size (#)	Length	Head Style	Head/Washer Diameter	TPI	Drill Point Size	Coating	Maximum Total Drilling Thickness	Drive Type	Bulk/Collated Quantity	Special Features
T5HW12114XT	12	1-1/4-in.	Hex Washer	0.415-in	24	5	NanoGard®	0.500-in	5/16-in Hex	4,000	Slotted Shank
T5HW12200	12	2-in.	Hex Washer	0.415-in	24	5	Clear Zinc	0.500-in	5/16-in Hex	2,000	Slotted Shank
T5HW12200XT	12	2-in.	Hex Washer	0.415-in	24	5	NanoGard®	0.500-in	5/16-in Hex	2,000	Slotted Shank
T5HW12200WXT	12	2-in.	Hex Washer	0.415-in	24	5	NanoGard®	0.500-in	5/16-in Hex	1,500	Slotted Shank, EPDM Washer
T5HW12212WXT	12	2-1/2-in.	Hex Washer	0.415-in	24	5	NanoGard®	0.500-in	5/16-in Hex	1,000	Slotted Shank, EPDM Washer
T5HW12212XT	12	2-1/2-in.	Hex Washer	0.415-in	24	5	NanoGard®	0.500-in	5/16-in Hex	1,000	Slotted Shank
T5HW12300	12	3-in.	Hex Washer	0.415-in	24	5	Clear Zinc	0.500-in	5/16-in Hex	1,000	Slotted Shank
T5HW12300WXT	12	3-in.	Hex Washer	0.415-in	24	5	NanoGard®	0.500-in	5/16-in Hex	1,000	Slotted Shank, EPDM Washer
T5HW12300XT	12	3-in.	Hex Washer	0.415-in	24	5	NanoGard®	0.500-in	5/16-in Hex	1,000	Slotted Shank

Prefixes: PP = 1-lb, FP = 5-lb, CP = Count Pack

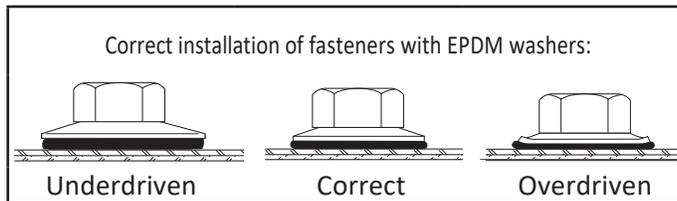
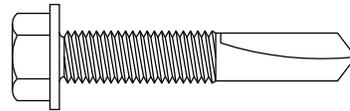
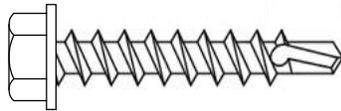
Item Numbers with "W" indicate EPDM washer is included.

Description: SCORPION Self-drilling Hex Washer head framing screw used in heavy-gauge (see TABLE A - Maximum Total Drilling Thickness) metal-to-metal applications. Self tapping drill point is designed for penetration into heavy-gauge metal. Hex head provides maximum driving torque with a flat bearing surface. Available with #1, #2, #3, #4, and #5-point, with EPDM washers, and with high (taller) heads.

Directions: For optimal performance, use a standard screwgun with an adjustable torque nose piece to prevent overdriving; very important. Use extra caution when installing with impact drivers. Recommended screwgun/driver specification include - Screw sizes #8 to #10, up to 2,500 RPM - Screw sizes #12 to #14, up to 1800 RPM. Follow tool manufacturer's recommendations. The Hex head is fully seated when the bearing surface of the head is flush with the work surface. The fastener must penetrate beyond the metal a minimum of three full threads.

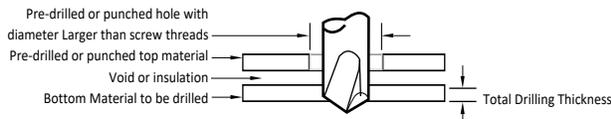
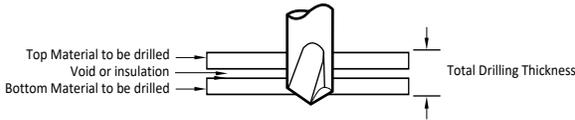
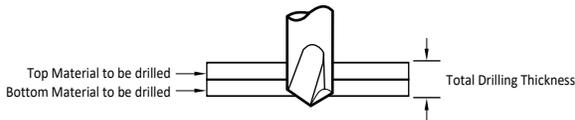
Corrosion: For corrosion resistance results, see Table B.

S-DHF - SCORPION-Self-Drilling Hex Washer Head Fine Thread



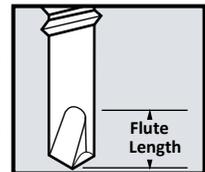
Self-Drilling Screw Selection Guide

DRILL POINT SELECTION



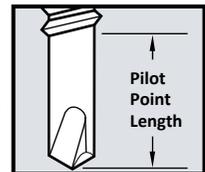
Drill Flute (Point Length)

The length of the drill flute determines the metal thickness that can be drilled. The flute itself provides a channel for chip removal during drilling action. If it becomes completely embedded in material, drill chips will be trapped in the flute and cutting action will cease. This will cause the point to burn up or break.



Pilot Point Length

The un-threaded section from the point to the first thread should be long enough to assure the drilling action is complete before the first thread engages the drilled metal. Screw threads advance at a rate of up to ten times faster than the drill flute can remove metal. All drilling therefore should be complete before threads begin to form.



Drilling Through Wood To Metal

If your application calls for drilling through wood over 1/2-in. thick, a clearance hole is required. Select a fastener with break away wings for this type of job. The wings will ream a clearance hole and break-off when in contact with metal surface (minimum metal thickness .040-in.) to be drilled.

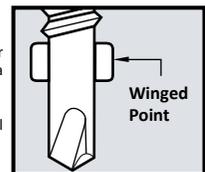


TABLE B

CORROSION RESISTANCE TESTING RESULTS			
Finish	Test	Standard/Protocol	Results (minimum)
Clear Zinc	Salt Spray	ASTM B117	12 hours, no red rust
NanoGard®	Salt Spray	ASTM B117	1,000 hours, no red rust

NOTE: Salt Spray Testing (SST) results are not intended to predict corrosion resistance in real-world environments. The ASTM B117 standard for SST is recognized industry-wide as an effective tool to compare different metals and different metal coatings in a tightly controlled highly corrosive environment for specific periods of time. For more information about corrosion resistance, see the *Grabber Guide to Corrosion Resistance for Fasteners*.

TRADEMARKS:

The following trademarks used herein are owned by Grabber Construction Products, Inc.:

GRABBER®
SCORPION®
NanoGard®

NOTICE:

We shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instruction or for other than the intended use. Our Liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within thirty (30) days of the date it was or reasonably should have been discovered.