

PRODUCT SUBMITTAL

Submitted to:

Project:

Date of Submittal:

Submitted by, Contact name:

Company:

Address:

Phone:

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Approved

Approved as Noted

Not Approved

Comments:

By:

Date:

List of items from Table A submitted for the project:

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Product Family S-DFF - SCORPION-Self-Drilling Flat Head Fine Thread

TABLE A

Item Number	Screw Size (#)	Length	Head Style	Head Diameter	TPI	Point Size/Style	Coating	Maximum Total Drilling Thickness	Drive Type	Bulk Quantity	Special Features
T3PF10158	10	1-5/8-in.	Flat	0.363-in	16	3	NanoGard®	0.175-in	#2 Phillips	3,000	with Wings, 8 Underhead Nibs
T4PF12200	12	2-in.	Flat	0.413-in	24	3.5	NanoGard®	0.220-in	#3 Phillips	2,000	Slotted Shank with Wings
T4PF12314	12	3-1/4-in.	Flat	0.413-in	24	4	NanoGard®	0.250-in	#3 Phillips	1,000	Slotted Shank with Wings
T4PF12212	12	2-1/2-in.	Flat	0.413-in	24	4	NanoGard®	0.250-in	#3 Phillips	1,500	Slotted Shank with Wings
T4PF14234	14	2-3/4-in.	Flat	0.480-in	20	4	NanoGard®	0.250-in	#3 Phillips	1,000	Slotted Shank with Wings
T4PF14234XT	14	2-3/4-in.	Flat	0.480-in	20	4	NanoGard®	0.250-in	#3 Phillips	1,000	Slotted Shank with Wings
T4PF14300XT	14	3-in.	Flat	0.480-in	20	4	NanoGard®	0.250-in	#3 Phillips	1,000	Slotted Shank with Wings
T4PF14314XT	14	3-1/4-in.	Flat	0.480-in	20	4	NanoGard®	0.250-in	#3 Phillips	1,000	Slotted Shank with Wings
T4PF14350XT	14	3-1/2-in.	Flat	0.480-in	20	4	NanoGard®	0.250-in	#3 Phillips	1,000	Slotted Shank with Wings
T4PF14334XT	14	3-3/4-in.	Flat	0.480-in	20	4	NanoGard®	0.250-in	#3 Phillips	1,000	Slotted Shank with Wings
T5PF12214XT	12	2-1/4-in.	Flat	0.413-in	24	5	NanoGard®	0.500-in	#3 Phillips	1,500	Slotted Shank

Item Number Code: XT - Exterior (NanoGard), PP = 1-lb, FP = 5-lb, CP = Count Pack

Description: Self-Drilling Flat head screw used in heavy-gauge (see TABLE A - Maximum Total Drilling Thickness) wood-to-metal applications. Self tapping drill point are designed for penetration into heavy-gauge steel.

Directions: Use a standard screwgun with a depth sensitive nose piece. Suggested screwgun specification for optimal performance - Size #10, up to 2,500 RPM, Size #12 - #14 up to 1,800 RPM. Overdriving may result in failure of the fastener, or failure of the gypsum board. For Corrosion Resistance Testing Results, see TABLE B.

Corrosion: For Corrosion Resistance Testing Results, see TABLE B.

Self-Drilling Screw Selection Guide

DRILL POINT SELECTION

Top Material to be drilled
Bottom Material to be drilled

Total Drilling Thickness

Top Material to be drilled
Void or insulation
Bottom Material to be drilled

Total Drilling Thickness

Pre-drilled or punched hole with diameter Larger than screw threads
Pre-drilled or punched top material
Void or insulation
Bottom Material to be drilled

Total Drilling Thickness

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.

Flute Length

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.

Pilot Point Length

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.

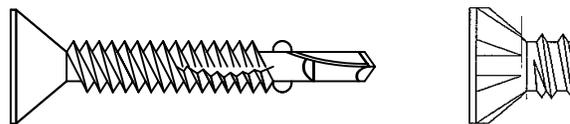
Winged Point

TABLE B

CORROSION RESISTANCE TESTING RESULTS			
Finish	Test	Standard/Protocol	Results (minimum)
NanoGard	Salt Spray (SST)	ASTM B117	1000 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*.

S-DFF - SCORPION-Self-Drilling Flat Head Fine Thread



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