

# T-STAR plus Wafer Head HCR-X™



## Multi-Purpose Engineered Fasteners



### DESCRIPTION

SPAX® T-STAR plus Wafer Head fasteners with HCR-X™ coating are designed for use in multiple material connections often found outside residential dwellings. These fasteners are designed with a low profile large diameter wafer head for applications requiring additional surface area under the head for superior pull-down force. Ideal for attaching rail, fencing and out building hardware where a flush or countersunk installation is not possible or desired.

### MATERIALS & COATING

Cold-rolled “carbon steel” wire, heat treated to grade 5 durability and plated with a HCR-X™ finish to prevent red rust. “HCR-X™” is tested and recognized for use in ground contact pressure treated lumber for exterior, freshwater general construction applications (e.g. AWPA UC1-UC4A, UCFA). SPAX® recommends stainless steel fasteners for applications with cedar and redwoods.

EXTERIOR



#### Low Profile Wafer Head

Provides a larger surface area and aesthetically clean look for the reliable installation of fine cabinetry.



#### Unique 4CUT™ Point

Prevents splitting and requires no pre-drilling in wood.



#### Patented Serrations

Allow for quicker, easier fastening.  
U.S. Patent No. 7,101,133



#### T-STAR plus Drive

“The Pro’s Choice” drive system provides superior bit engagement, eliminates camming out and facilitates overhead driving.



### TYPICAL EXTERIOR APPLICATIONS

- Treated lumber rail and gate hardware attachment
- Other exterior applications where substrate must be tightly connected to treated lumber
- Outdoor furniture
- Outdoor play structures
- Window installation

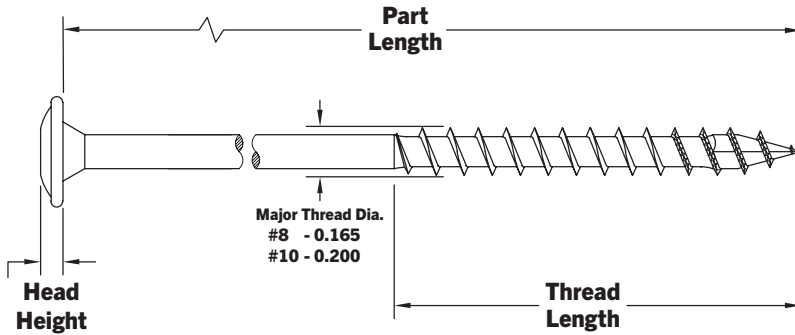


# T-STAR plus Wafer Head HCR-X™



ENGINEERED FASTENERS

## Multi-Purpose Engineered Fasteners



### PRODUCT SELECTION

Part Length	Thread Length		Head Dia. Head Ht.	Drive/Bit Size	Approx. Qty.	Pkg. Type	Master Qty.	Part No.
	Full	Partial						
#8 x 1-1/4"	N/A	0.670	0.375 0.080	T20+	195	1 lb. Box	5	4281670400324
#8 x 1-1/2"	N/A	0.875	0.375 0.080	T20+	165	1 lb. Box	5	4281670400404
#8 x 2"	N/A	1.250	0.375 0.080	T20+	140	1 lb. Box	5	4281670400504
					1500	Bulk Pail	1	3281670400500
#8 x 2-1/2"	N/A	1.375	0.375 0.080	T20+	120	1 lb. Box	5	4281670400604
#10 x 2-1/2"	N/A	1.500	0.470 0.085	T20+	77	1 lb. Box	5	4281670500604
					1200	Bulk Pail	1	3281670500600
#10 x 3"	N/A	1.625	0.470 0.085	T20+	63	1 lb. Box	5	4281670500754
					185	3 lb. Box	3	42816705007545
					1000	Bulk Pail	1	3281670500750

NOTE: Only sold in master cartons.

EXTERIOR



1 and 3 lb. Box



Bulk Pail



T-Star plus Bit

### BIT SELECTION

Drive Bit	Bit Size	Master Qty.	Part No.
T20+	1"	10	5000009185209
	2"	10	5000009285209



NOTE: Only sold in master cartons. Made in Taiwan.



## Multi-Purpose Engineered Fasteners

### FASTENER LENGTHS

Part Length	Head	Fastener	Part Length	Head	Fastener
#8 x 1-1/4"			#8 x 2-1/2"		
#8 x 1-1/2"			#10 x 2-1/2"		
#8 x 2"			#10 x 3"		

### MASONRY & CONCRETE PRE-DRILL SPECIFICATIONS

NOTE: In masonry/concrete, pre-drill a hole at least 1/4" to 1/2" longer than the length of the screw (refer to chart). No anchor required. In sheet metal, no pre-drilling is required up to 24 gauge.

Screw Diameter	Drill Bit	Weight
#8	1/8"	Light
#10	5/32"	Medium

### PERFORMANCE SPECIFICATIONS



TER No. 2010-02  
Multi-Purpose Fastener Properties

DIAMETER	ALLOWABLE WITHDRAWAL (W) AND HEAD PULL-THROUGH (W <sub>H</sub> ) <sup>1,2,3,4</sup>					
	SOUTHERN PINE (G=0.55)		DOUGLAS-FIR (G=0.50)		HEM FIR & SPRUCE-PINE-FIR (G=0.42)	
	WITHDRAWAL (W) (lbs./inch)	HEAD PULL-THROUGH (W <sub>H</sub> ) (lbs.)	WITHDRAWAL (W) (lbs./inch)	HEAD PULL-THROUGH (W <sub>H</sub> ) (lbs.)	WITHDRAWAL (W) (lbs./inch)	HEAD PULL-THROUGH (W <sub>H</sub> ) (lbs.)
#8	175	335	133	297	127	268
#10	190	461	176	387	144	338

DIAMETER	ALLOWABLE WITHDRAWAL (W) AND HEAD PULL-THROUGH (W <sub>H</sub> ) <sup>1,2</sup>													
	PLYWOOD 15/32" (G=0.39)		PLYWOOD 19/32" (G=0.39)		PLYWOOD 23/32" (G=0.50)		OSB 7/16" (G=0.50)		OSB 15/32" (G=0.50)		OSB 19/32" (G=0.50)		OSB 23/32" (G=0.50)	
	WITHDRAWAL (W) (lbs.)	HEAD PULL-THROUGH (W <sub>H</sub> ) (lbs.)	WITHDRAWAL (W) (lbs.)	HEAD PULL-THROUGH (W <sub>H</sub> ) (lbs.)	WITHDRAWAL (W) (lbs.)	HEAD PULL-THROUGH (W <sub>H</sub> ) (lbs.)	WITHDRAWAL (W) (lbs.)	HEAD PULL-THROUGH (W <sub>H</sub> ) (lbs.)	WITHDRAWAL (W) (lbs.)	HEAD PULL-THROUGH (W <sub>H</sub> ) (lbs.)	WITHDRAWAL (W) (lbs.)	HEAD PULL-THROUGH (W <sub>H</sub> ) (lbs.)	WITHDRAWAL (W) (lbs.)	HEAD PULL-THROUGH (W <sub>H</sub> ) (lbs.)
#8	51	146	83	190	162	319	26	62	36	86	48	110	52	131
#10	90	183	92	246	186	322	39	73	54	87	54	126	66	131

<sup>1</sup> Tabulated withdrawal and head pull-through design values (W) and (W<sub>H</sub>) are shown at a C<sub>p</sub> = 1.0. Tabulated withdrawal and head pull-through values shall be adjusted by all applicable adjustment factors per NDS Table 11.3.1.

<sup>2</sup> Full withdrawal strength is calculated by multiplying the length of thread embedded in the main member by the tabulated reference withdrawal values.

<sup>3</sup> Head pull-through values for #8 diameter and larger in Southern Pine, Douglas-Fir, Hem-Fir and Spruce-Pine-Fir are minimum 1.5" side member thickness.

<sup>4</sup> For wood species with an assigned specific gravity between 0.42 and 0.50, use the tabulated values for specific gravity of 0.42. For wood species with an assigned specific gravity between 0.50 and 0.55, use the tabulated values for specific gravity of 0.50. For wood species with an assigned specific gravity greater than or equal to 0.55, use the tabulated values for specific gravity of 0.55.