

## MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208 Miami, Florida 33175-2474 T (786) 315-2590 F (786) 315-2599 www.miamidade.gov/economy

## BOARD AND CODE ADMINISTRATION DIVISION NOTICE OF ACCEPTANCE (NOA)

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)

DEWALT 701 East Joppa Road Towson, MD 21286

**SCOPE:** This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami Dade County and other areas where are allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami-Dade County) and/ or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

## DESCRIPTION: 1/4"Crete-Flex SS4, 1/4" Ultracon SS4 and 1/4" Aggre-Gator 300 Concrete and Masonry Screw Anchor

**APPROVAL DOCUMENT:** Drawing No. **20-21685**, titled "1/4"Crete-Flex, Ultracon SS4 & Aggre-Gator Concrete and Masonry Anchors", sheet 1 through 3 of 3, dated 02/18/2019 with latest revision date 10/20/2020, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E., bearing the Miami-Dade County Product Control revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

#### **MISSILE IMPACT RATING: None**

**LABELING:** Each box/container of the smallest quantity shall bear a label with the manufacturer's name or logo, city, state, model/series and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/ or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA #19-0619.01 and consists of this page 1, evidence pages E-1, E-2, E-3, E-4 and E-5, as well as approval document mentioned above.

The submitted documentation was reviewed by Sifang Zhao, P.E.



*5,2*. 05/06/2021

NOA No: 21-0201.08 Expiration Date: April 14, 2023 Approval Date: May 06, 2021 Page 1

#### NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

- 1.1 Evidence submitted under 1/4" Crete-Flex® SS4 Concrete and Masonry Anchors NOA
- A. DRAWINGS "Submitted under NOA # 17-1227.18"
  - 1. Drawing No. 14-1818, titled "1/4" Crete-Flex® SS4 Concrete and Masonry Anchors", sheet 1 of 1, dated 04/03/2008, with last revision dated 12/20/2017, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E.
- B. TESTS "Submitted under NOA # 11-0428.01"

	Test Report No.	Standard	Date	Signature
1.	HETI-08-A262	ASTM E488-96	03/17/08	Candido F. Font, P.E.
2.	HETI-08-A264	ASTM E488-96	03/17/08	Candido F. Font, P.E.
<b>3.</b>	HETI-08-A279	ASTM E488-96	03/18/08	Candido F. Font, P.E.
4.	HETI-08-A281	ASTM E488-96	03/18/08	Candido F. Font, P.E.
<b>5.</b>	HETI-08-T14	<b>ASTM E8-01</b>	08/05/08	Candido F. Font, P.E.
6.	HETI-08-C101B	ASTM C39-03	03/25/08	Candido F. Font, P.E.
	"Submitted under .	NOA # 99-1227.13"		
1.	CTC 99-008	ASTM F488	02/14/98	G. Dotzler, P.E.

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2.	CTC 98-039	ASTM E488	09/12/98	G. Dotzler, P.E.
<b>3.</b>	HETI 98-3023	ASTM E488	06/18/98	H. M. Medina, P.E.

- C. CALCULATIONS
  - 1. None.
- D. MATERIAL CERTIFICATIONS
  - 1. None.
- E. QUALITY ASSURANCE
  - 1. Miami-Dade Department of Regulatory and Economic Resources (RER)
- F. STATEMENTS "Submitted under NOA # 17-1227.18"
  - 1. Statement letter of code conformance to 6<sup>th</sup> edition (2017) FBC, prepared by Engineering Express, dated 12/21/2017, signed and sealed by Frank L. Bennardo, P.E.

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#### NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

## 1.2 Evidence submitted under Aggre-Gator 300 Series Stainless Steel Concrete and Masonry Anchor NOA

#### A. DRAWINGS "Submitted under NOA # 17-1227.19"

1. Drawing No. 14-1820, titled "Aggre-Gator Fasteners 300 Series Stainless Steel Bi-Metal Concrete & Masonry Screw", sheet 1 of 1, dated 09/09/2013, with last revision dated 12/20/2017, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E.

#### B. TESTS "Submitted under NOA # 08-0813.06"

	Test Report	Standard	Date	Signature
1.	HETI-08-A242	ASTM E488	02/28/08	Candido F. Font, P.E.
2.	HETI-08-A248	ASTM E488	02/28/08	Candido F. Font, P.E.
<b>3.</b>	HETI-08-A236	ASTM E488	02/28/08	Candido F. Font, P.E.
4.	HETI-08-A230	ASTM E488	02/28/08	Candido F. Font, P.E.
5.	HETI-08-A260	ASTM E488	02/28/08	Candido F. Font, P.E.
6.	HETI-08-A275	ASTM E488	03/17/08	Candido F. Font, P.E.
7.	HETI-08-A277	ASTM E488	03/17/08	Candido F. Font, P.E.
8.	HETI-08-A222	ASTM E488	02/28/08	Candido F. Font, P.E.
9.	HETI-08-A226	ASTM E488	02/28/08	Candido F. Font, P.E.
10.	HETI-08-C102A	ASTM C39	03/25/08	Candido F. Font, P.E.
11.	HETI-08-C101A	ASTM C39	03/25/08	Candido F. Font, P.E.
<b>12.</b>	HETI-08-C100A	ASTM C39	03/25/08	Candido F. Font, P.E.
<b>13.</b>	STTS 08001	TAS 114, App. E	05/25/08	Mark Mosbat, P.E.
<b>14.</b>	STTS 08003	TAS 114, App. E	06/21/08	Mark Mosbat, P.E.

#### C. CALCULATIONS "Submitted under NOA # 13-0924.02"

**1.** Anchor allowable load capacities calculation prepared by Engineering Express, dated 09/11/2013, signed and sealed by Frank L. Bennardo, P.E.

#### D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

#### E. MATERIAL CERTIFICATIONS

1. None.

#### F. STATEMENTS "Submitted under NOA # 17-1227.19"

1. Statement letter of code conformance to 6<sup>th</sup> edition (2017) FBC, prepared by Engineering Express, dated 12/21/2017, signed and sealed by Frank L. Bennardo, P.E.

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#### NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

## 1.3 Evidence submitted under Ultracon® SS4 410 Series Stainless Steel Concrete and Masonry Screw Anchor NOA

#### A. DRAWINGS "Submitted under NOA # 17-1227.23"

Drawing No. **14-1819**, titled "Elco Ultracon® SS4 410 Series Stainless Steel Concrete & Masonry Screw", sheet 1 of 1, dated 08/23/2013, with last revision dated 12/20/2017, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E.

#### B. TESTS "Submitted under NOA # 13-1205.05"

	Test Report	Standard	Date	Signature
1.	HETI-11-A650	ASTM E488	06/11/13	Rafael E. Droz-Seda, P.E.
2.	HETI-11-A666	ASTM E488	06/11/13	Rafael E. Droz-Seda, P.E.
<b>3.</b>	HETI-11-A674	ASTM E488	06/11/13	Rafael E. Droz-Seda, P.E.
4.	HETI-11-C162	ASTM C39	10/17/11	Rafael E. Droz-Seda, P.E.
<b>5.</b>	HETI-11-C163	ASTM C39	12/12/11	Rafael E. Droz-Seda, P.E.
6.	HETI-11-C164	ASTM C39	10/19/11	Rafael E. Droz-Seda, P.E.
7.	HETI-11-S100	ASTM G85	12/30/11	Rafael E. Droz-Seda, P.E.
8.	HETI-12-T100	ASTM F606	01/24/12	Rafael E. Droz-Seda, P.E.
9.	HETI-12-T101	ASTM F606	01/24/12	Rafael E. Droz-Seda, P.E.

#### C. CALCULATIONS "Submitted under NOA # 13-1205.05"

1. Anchor allowable load capacities calculation prepared by Engineering Express, dated 10/02/2013, signed and sealed by Frank L. Bennardo, P.E.

### D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

#### E. MATERIAL CERTIFICATIONS

1. None.

#### F. STATEMENTS "Submitted under NOA # 18-1226.08"

1. Statement letter of code conformance to 6<sup>th</sup> edition (2017) FBC, prepared by Engineering Express, dated 12/21/2017, signed and sealed by Frank L. Bennardo, P.E.

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#### NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### 2. Evidence submitted under NOA#19-0619.01

#### A. DRAWINGS

1. Drawing No. 19-7458a, titled "1/4" Crete-Flex, Ultracon SS4 & Aggre-Gator Concrete and Masonry Anchors", sheet 1 through 3 of 3, dated 02/18/2019, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E. on 06/11/2019.

#### B. TESTS

1. None.

#### C. CALCULATIONS

1. None.

#### D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

#### E. MATERIAL CERTIFICATIONS

1. None.

#### F. STATEMENTS

- 1. Drawing No. **19-7458a** statement of code conformance to 6<sup>th</sup> edition (2017) FBC, prepared by Engineering Express, dated 02/18/2019, signed and sealed by Frank L. Bennardo, P.E. on 06/11/2019.
- 2. Statement letter of no financial interest issued by Engineering Express, dated 05/02/2019, signed and sealed by Frank L. Bennardo, P.E.
- **3.** Agreement for the sale and purchase of Infastech Limited of Asia Trading Holdings Limited and Black & Decker Global Holdings S.A R.L. and Stanley Black & Decker, Inc.
- **4.** Certificate of merger of Powers Fasteners, Inc. into Black & Decker (U.S.) Inc.
- **5.** Dewalt Industrial Tool Co. fictitious name registration owned by Black & Decker (U.S.) Inc.

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### NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### 3. New evidence submitted

#### A. DRAWINGS

1. Drawing No. **20-21685**, titled "1/4"Crete-Flex, Ultracon SS4 & Aggre-Gator Concrete and Masonry Anchors", sheet 1 through 3 of 3, dated 02/18/2019 with latest revision date 10/20/2020, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E.

#### B. TESTS

1. None.

#### C. CALCULATIONS

1. None.

#### D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

#### E. MATERIAL CERTIFICATIONS

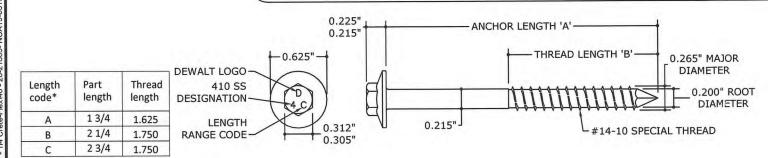
1. None.

#### F. STATEMENTS

- 1. Drawing No. **20-21685** statement of code conformance to 7<sup>th</sup> edition (2020) FBC, prepared by Engineering Express, dated 01/05/2021, signed and sealed by Frank L. Bennardo, P.E.
- 2. Statement letter of no financial interest issued by Engineering Express, dated 01/05/21, signed and sealed by Frank L. Bennardo, P.E.

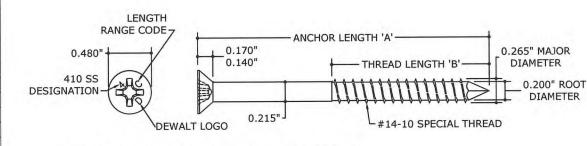
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# 1/4" CRETE-FLEX® SS4 MASONRY SCREWS



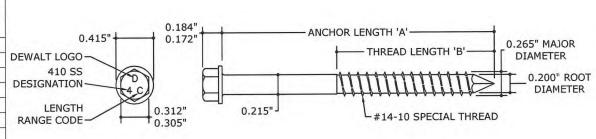
# HEX FLANGE HEAD (HFH)

Length code*	Part length	Thread length
	1 1/4"	1
Α	1 3/4"	1.500
В	2 1/4"	1.750
С	2 3/4"	1.750
D	3 1/4"	1.750
E	3 3/4	1.750
F	4"	1.750
G	5"	1.750
H	6"	1.750

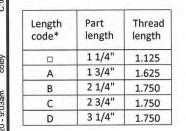


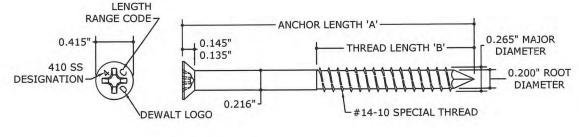
# PHILLIPS FLAT HEAD (PFH) 1'-0" = 1'-0"

Length code*	Part length	Thread length	
	1 1/4"	1.125	
Α	1 3/4"	1.625	I
В	2 1/4"	1.750	ĺ,
С	2 3/4"	1.750	ř
D	3 1/4"	1.750	
E	3 3/4	1.750	
F	4"	1.750	
G	5"	1.750	
Н	6"	1.750	



## HEX WASHER HEAD (HWH)





## **GENERAL NOTES:**

- 1. THIS PRODUCT HAS BEEN DESIGNED & TESTED IN ACCORDANCE WITH THE THE FLORIDA BUILDING CODE SEVENTH EDITION (2020) AND THE FOLLOWING STANDARDS: ASTM E488 & TAS 114. THIS PRODUCT IS INTENDED FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE.
- 2. ANCHORS ARE MANUFACTURED FROM 410 STAINLESS STEEL AND SHALL HAVE A CORROSION-RESISTANT SILVER-COLORED STALGARD COATING.
- 3. ANCHOR INSTALLATION SHALL BE MADE IN ACCORDANCE WITH
- MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS AND THIS APPROVAL. 4. CONCRETE SHALL CONFORM TO ACI 301 SPECIFICATIONS, WITH STRENGTH
- PROPERTIES AS SPECIFIED HEREIN. HOLLOW CONCRETE BLOCK SHALL CONFORM TO ASTM C-90. 5. ANCHORS SHALL NOT BE INSTALLED INTO CRACKED CONCRETE AS DEFINED IN
- 6. ALLOWABLE LOADS TO 3350 PSI MINIMUM CONCRETE SUBSTRATE ARE BASED ON THE ULTIMATE LOADS DIVIDED BY 4. ALLOWABLE LOADS TO ASTM C90 CONCRETE BLOCK ARE BASED ON THE ULTIMATE LOADS DIVIDED BY 5.
- 7. PILOT HOLES SHALL BE DRILLED USING A 7/32" MASONRY DRILL BIT, AND SHALL BE A MINIMUM 1/4" DEEPER THAN THE REQUIRED EMBEDMENT DEPTH.
- 8. ANCHORS NOTED HEREIN HAVE A TENSILE YIELD STRENGTH OF Fy = 127.4 ksi AND A TENSILE ULTIMATE STRENGTH OF Fu = 189.7 ksi.

#### **ALLOWABLE ANCHOR CAPACITIES:**

	EMBEDMENT	EDGE DISTANCE	SPACING	TENSION	SHEAR	
		1"	6" O.C.	150 LB	125 LB	
	1"	1-3/4"	6" O.C.	165 LB	215 LB	
		2-1/2"	6" O.C.	190 LB	265 LB	
Σ			1-1/2" O.C.	320 LB		
₩ MU		1"	3" O.C.	388 LB	178 LB	
CONCRETE 3350 PSI MINIMUM	4.0/48		6" O.C.	390 LB	310 LB	
SIL	1-3/4"	1-3/4"	6" O.C.	525 LB	450 LB	
CC 50 F		0.4/0"	3" O.C.	314 LB	467 LB	
33		2-1/2"	6" O.C.	625 LB	645 LB	
	2"	1"	6" O.C.	390 LB	310 LB	
		1-3/4"	6" O.C.	525 LB	450 LB	
		2-1/2"	6" O.C.	680 LB	645 LB	
X		1"	6" O.C.	156 LB	84 LB	
	1-3/4" 1-3/4" 2-1/2" 2-1/2"	1-3/4"	6" O.C.	232 LB	264 LB	
0 B		. ш 1-1/4"		1-1/2" O.C.	101 LB	213 LB
CS ZET		2-1/2"	3" O.C.	101 LB	247 LB	
NCF			6" O.C.	244 LB	264 LB	
8	1-5/8"	1"	6" O.C.	248 LB	108 LB	

<sup>\*</sup> LINEAR INTERPOLATION MAY BE PERFORMED FOR ANCHOR CAPACITIES BETWEEN THE ANCHOR SPACINGS LISTED ABOVE.

**PRODUCT REVISED** as complying with the Florida Building Code **NOA-No.** 21-<u>0201.08</u>

Expiration Date 04/14/2023

**Miami-Dade Product Control** 

RICHARD NEET, P.E. PE# 86488 CA#9885

11/11/11/11

FFICE: SUITE 106, FL 33442, 396-999 PRES.COM ESS.COM

OPYRIGHT ENGINEERING EXPRESS 20-21685

SCALE: NTS UNLESS NOTED

## **ULTRACON®** SS4

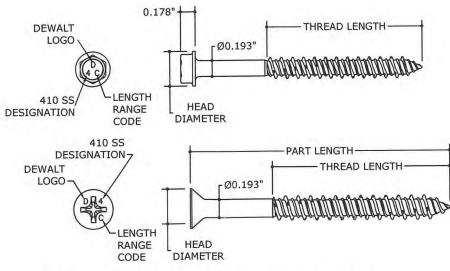
410 SERIES STAINLESS STEEL CONCRETE & MASONRY SCREW

### 1/4"Ø ULTRACON SS4 ALLOWABLE LOAD CAPACITIES:

	EDGE DISTANCE	SPACING	EMBEDMENT	TENSION (LB)	SHEAR (LB)
		1-1/2"	1-1/4"	106	44
and hear education	1"	3"	1-1/4"	124	72
HOLLOW BLOCK	2.4/28	1-1/2"	1-1/4"	106	89
	2-1/2"	3"	1-1/4"	124	123
		4 4 / 2 !!	1"	91	71
		1-1/2"	1-3/4"	144	103
	1"	3"	1"	163	74
CONCRETE			1-3/4"	328	136
(2897 PSI MIN.)	2-1/2"	1-1/2"	1"	191	194
(2037 10111111)			1-3/4"	339	505
		3"	1"	236	263
			1-3/4"	403	584
			1-1/4"	137	56
		1-1/2"	2"	218	56
	1"	3"	1-1/4"	190	83
GROUT FILLED BLOCK			2"	292	83
			1-1/4"	205	91
	370.9	1-1/2"	2"	218	180
	2-1/2"		1-1/4"	212	200
		3"	2"	386	302

#### NOTE:

- HOLLOW BLOCK SHALL CONFORM TO ASTM C-90 WITH A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.
- GROUT FILLED BLOCK SHALL CONFORM TO ASTM C-90 WITH A MINIMUM BLOCK COMPRESSIVE STRENGTH OF 2000 PSI AND MINIMUM GROUT COMPRESSIVE STRENGTH OF
- ALLOWABLE LOAD CAPACITIES LISTED HEREIN ARE NOT VALID FOR CRACKED CONCRETE SUBSTRATES AS DETAILED IN ACI 355.2.



## 1/4"Ø ULTRACON SS4 SCREW N.T.S.

## **GENERAL NOTES:**

1. THIS PRODUCT HAS BEEN DESIGNED & TESTED IN ACCORDANCE WITH THE STRUCTURAL PROVISIONS OF THE FLORIDA BUILDING CODE SEVENTH EDITION (2020) FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE, AND THE FOLLOWING STANDARDS: ASTM E488, ASTM C39, TAS 114, ASTM G85.

2. ULTRACON SS4 SCREW ANCHORS SHALL BE 410 SERIES STAINLESS STEEL WITH A SILVER STALGARD CORROSION RESISTANT COATING, ANCHOR YIELD STRENGTH Fy=164 KSI, ANCHOR ÚLTIMATE STRENGTH Fu=190 KSI.

3. ANCHOR INSTALLATION SHALL BE MADE IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS AND THIS APPROVAL 4. PILOT HOLES FOR ANCHORS TESTED WERE MADE WITH A  $\frac{3}{16}$ " DRILL BIT WITH A DIAMETER OF 0.206"Ø (+0.000/-0.008).

5. ALLOWABLE LOADS SHOWN HEREIN HAVE BEEN CALCULATED DIRECTLY FROM THE TEST REPORTS REFERENCED BELOW PER THE FOLLOWING:

ULTIMATE LOAD DIVIDED BY 4.0 FOR SOLID

NON-CRACKED CONCRETE SUBSTRATES.
5.2. ULTIMATE LOAD DIVIDED BY 5.0 FOR HOLLOW
BLOCK & GROUT FILLED BLOCK SUBSTRATES.

NO ALLOWABLE STRESS INCREASE HAS BEEN USED IN PREPARATION OF THIS DOCUMENT. 7. CONCRETE SHALL CONFORM TO ACI 301

SPECIFICATIONS, WITH STRENGTH PROPERTIES AS SPECIFIED HEREÍN. HOLLOW AND GROUT-FILLED CONCRETE BLOCK SHALL CONFORM TO ASTM C-90 8. ANCHOR EDGE DISTANCE AND SPACING SHALL BE MEASURED FROM THE CENTERLINE OF EACH ANCHOR.

9. ANCHOR EDGE DISTANCES, EMBEDMENT, AND SPACING BELOW THOSE SHOWN IN DESIGN TABLES HEREIN ARE NOT ACCEPTABLE.

10. ALLOWABLE LOAD CAPACITIES TO SUBSTRATES THAT ARE NOT SHOWN IN THE DESIGN TABLES LISTED HEREIN ARE OUTSIDE THE SCOPE OF THIS CERTIFICATION AND SHALL BE DETERMINED BY A LICENSED PROFESSIONAL ENGINEER.

11. ANCHOR VALUES LISTED HEREIN ARE DETERMINED THROUGH TESTING REPORT DATA AND CHECKED FOR CONSISTENCY WITH EACH TEST PERFORMED. 12. REFERENCE THE FOLLOWING TEST REPORTS:

HURRICANE ENGINEERING & TESTING,

#HETI-11-A650 (06/11/13) #HETI-11-A666 (06/11/13) #HETI-11-A674 (06/11/13) #HETI-11-C164 (10/19/11) #HETI-11-C162 (10/17/11) #HETI-11-C163 (12/12/11 #HETI-11-S100 (12/30/11) #HETI-12-T100 (01/24/12) #HETI-12-T101 (01/24/12)

13. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.

14. ALTERATIONS, ADDITIONS OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE THIS CERTIFICATION.

### **PRODUCT REVISED** as complying with the Florida Building Code

**NOA-No.** 21-0201.08

Expiration Date 04/14/2023

Miami-Dade Product Control

RICHARD NEET, P.E. PE# 86488 CA#9885

10/20/2020

CORPORATE OFFICE: 0 SW 12th AVE, SUITE 106 EERFIELD BEACH, FL 33442 (954) 354-060 | (866) 396-999 TEAM@ENGINEERINGEXPRESS.COM ENGINEERINGEXPRESS.COM

160 SW DEERFIE

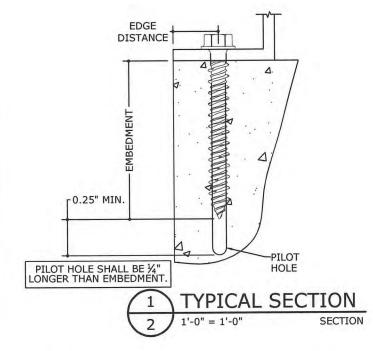
701 EAST JOPPA ROAD
TOWNSON, MARYLAND 21286
(800) 524-3244
\*" CRETE-FLEX SS4, ¼" ULTRACON SS4, ¼" A
CONCRETE & MASONRY ANCHORS
MIAMI DADE NOTICE OF ACCURA

DEWAL

PYRIGHT ENGINEERING EXPRES 20-21685

SCALE: NTS UNLESS NOTED





## **ULTRACON SS4 THREAD LENGTHS:**

Length	Part	Thread
code*	length	length
	1 1/4"	1 1/8"
Α	1 3/4"	1 5/8"
В	2 1/4"	17/8"
С	2 3/4"	1 7/8"
D	3 1/4"	1 7/8"
Е	3 3/4	1 7/8"
F	4"	1 7/8"

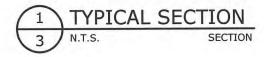
\*LENGTH CODE IS MARKED ON TOP OF FASTENER HEAD SEE ILLUSTRATION BELOW

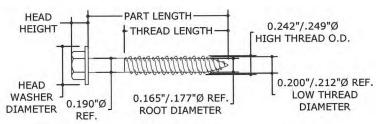
## DRIVE AND HEAD DIMENSIONS:

DRIVE/HEAD STYLE	DRIVE	HEAD DIAMETER
HEX WASHER HEAD (HWH)	5/16" HEX (AF)	0.415" NOM.
PHILLIPS FLAT HEAD (PFH)	#3 PHILLIPS	0.415" NOM.

## THREAD AND SHANK DIMENSIONS:

FASTENER DIMENSION	DIAMETER
HIGH THREAD DIAMETER	0.257" NOM.
LOW THREAD DIAMETER	0.209" NOM.
MINOR DIAMETER (THREAD ROOT)	0.174" NOM.
UNTHREADED SECTION DIAMETER	0.193"





/4"Ø AGGRE-GATOR SCREW

### AGGRE-GATOR THREAD LENGTHS:

Length code*	Length range of anchor	Part length	Thread length
	1<11/2	1 1/4"	1 1/8"
Α	1 1/2 < 2	1 3/4"	1 3/4"
В	2 < 2 1/2	2 1/4"	1 3/4"
С	2 1/2 < 3	2 3/4"	1 3/4"
D	3 < 3 1/2	3 1/4"	1 3/4"
E	3 1/2 < 4	3 3/4	1 3/4"
F	4 < 4 1/2	4"	1 3/4"

\*LENGTH CODE IS MARKED ON TOP OF FASTENER HEAD, SEE ILLUSTRATION BELOW

## **AGGRE-GATOR®**

300 SERIES STAINLESS STEEL BI-METAL CONCRETE & MASONRY SCREW

### 1/4"Ø AGGRE-GATOR ALLOWABLE LOAD CAPACITIES:

	EDGE DISTANCE	SPACING	EMBEDMENT	TENSION (LB)	SHEAR (LB)
1726 0.200 20 a 200	2"	3"	1-1/4"	156	187
HOLLOW BLOCK	4"	3"	1-1/4"	176	211
GROUT FILLED BLOCK	2"	3"	1-1/4"	166	207
			2"	325	473
	4"	1-1/2"	1-1/4"	149	282
			2"	403	477
CONCRETE	1-1/4"	3"	1"	118	N/A
			1-3/8"	289	N/A
			1-3/4"	294	N/A
	1-1/2"	3"	1"	118	204
			1-3/8"	289	259
			1-3/4"	294	305
(2220 PSI MIN.)		1-1/2"	1"	194	204
(2220 F31 MIN.)	2-1/2"		1-3/8"	251	259
			1-3/4"	319	305
		3"	1-1/2"	N/A	200 1
			1-3/4"	N/A	199 †
	3"	1-1/2"	1"	194	226
			1-3/8"	251	413
			1-3/4"	319	488
CONCRETE (3275 PSI MIN.)	1-1/4"	3"	1"	248	N/A
			1-3/8"	294	N/A
			1-3/4"	294	N/A
	1-1/2"	3"	1"	248	255
			1-3/8"	294	305
			1-3/4"	294	305
			1"	251	255
	2-1/2"	1-1/2"	1-3/8"	251	305
			1-3/4"	319	305
	3"	1-1/2"	1"	251	226
			1-3/8"	251	510
					515
ATE .			1-3/4"	319	5

- HOLLOW & GROUT FILLED BLOCK SHALL CONFORM TO ASTM C-90 MINIMUM BLOCK.
- AGGRE-GATOR ALLOWABLE LOAD CAPACITIES LISTED HEREIN ARE NOT VALID FOR CRACKED CONCRETE SUBSTRATES AS DETAILED IN ACI 355.2.

† EMBEDMENT DEPTH INTO 2220 PSI CONCRETE, WITH %" MAX THICK UNANCHORED WOOD BUCK LOCATED BETWEEN THE CONCRETE AND SIDE MEMBER.

†† EMBEDMENT DEPTH INTO 2220 PSI CONCRETE, WITH 1½" MAX THICK UNANCHORED WOOD BUCK LOCATED BETWEEN THE CONCRETE AND SIDE MEMBER.

### AGGRE-GATOR HEAD DIMENSIONS:

HEAD STYLE	WASHER DIAMETER	HEAD HEIGHT	ACROSS FLATS
HEX WASHER HEAD	0.420"	0.190"	0.312"
HEX FLANGE HEAD	0.620"	0.225"	0.312"
PHILLIPS TRIMFIT HEAD	0.430"*	0.155"	N/A

### **GENERAL NOTES:**

THIS PRODUCT HAS BEEN DESIGNED & TESTED IN ACCORDANCE WITH THE STRUCTURAL PROVISIONS OF THE FLORIDA BUILDING CODE SEVENTH EDITION (2020) FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY
HURRICANE ZONE, AND THE FOLLOWING STANDARDS:
ASTM E488, ASTM C39, TAS 114.
2. AGGRE-GATOR SCREW ANCHORS SHALL BE 300

SERIES (18-8) STAINLESS STEEL WITH A STALGARD GB (GALVANIC BARRIER) CORROSION RESISTANT COATING, ANCHOR YIELD STRENGTH Fy=57 KSI, ANCHOR ULTIMATE STRENGTH Fu=96 KSI.

ANCHOR INSTALLATION SHALL BE MADE IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS AND THIS NOTICE OF

4. PILOT HOLES FOR ANCHORS TESTED WERE MADE WITH A  $\frac{3}{16}$ " DRILL BIT WITH A DIAMETER OF 0.206"Ø (+0.000/-0.008). 5. ALLOWABLE LOADS SHOWN HEREIN HAVE BEEN

CALCULATED DIRECTLY FROM THE TEST REPORTS REFERENCED BELOW PER THE FOLLOWING:

5.1. ULTIMATE LOAD DIVIDED BY 4.0 FOR SOLID NON-CRACKED CONCRETE SUBSTRATES. ULTIMATE LOAD DIVIDED BY 5.0 FOR HOLLOW

BLOCK & GROUT FILLED BLOCK SUBSTRATES. 6. NO ALLOWABLE STRESS INCREASE HAS BEEN USED IN PREPARATION OF THIS DOCUMENT.

7. CONCRETE SHALL CONFORM TO ACI 301 SPECIFICATIONS, WITH STRENGTH PROPERTIES AS SPECIFIED HEREIN. HOLLOW AND GROUT-FILLED CONCRETE BLOCK SHALL CONFORM TO ASTM C-90 8. ANCHOR EDGE DISTANCE AND SPACING SHALL BE

MEASURED FROM THE CENTERLINE OF EACH ANCHOR. 9. ANCHOR EDGE DISTANCES, EMBEDMENT, AND SPACING BELOW THOSE SHOWN IN DESIGN TABLES

HEREIN ARE NOT ACCEPTABLE.

10. ALLOWABLE LOAD CAPACITIES TO SUBSTRATES THAT ARE NOT SHOWN IN THE DESIGN TABLES LISTED HEREIN ARE OUTSIDE THE SCOPE OF THIS CERTIFICATION AND SHALL BE DETERMINED BY A LICENSED PROFESSIONAL ENGINEER.

11. ANCHOR VALUES LISTED HEREIN ARE DETERMINED THROUGH TESTING REPORT DATA AND CHECKED FOR CONSISTENCY WITH EACH TEST PERFORMED.

12. REFERENCE THE FOLLOWING TEST REPORTS: HURRICANE ENGINEERING & TESTING,

INC. #HETI-08-A222 (02/28/08) #HETI-08-A226 (02/28/08) #HETI-08-A230 (02/28/08) #HETI-08-A236 (02/28/08) #HETI-08-A242 (02/28/08) #HETI-08-A248 (02/28/08 #HETI-08-A260 (02/28/08) #HETI-08-A275 (03/17/08 #HETI-08-A277 (03/17/08) #HETI-08-C100A (03/25/08) #HETI-08-C101A (03/25/08) #HETI-08-C102A (03/25/08) SUB-TROPICAL TESTING SERVICE. #STTS 08001 (05/25/08)

#STTS 08003 (06/21/08) 13. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE

14. ALTERATIONS, ADDITIONS OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE THIS CERTIFICATION.

**PRODUCT REVISED** 

**Building Code** 

as complying with the Florida

**NOA-No.** 21-0201.08

**Expiration Date** 04/14/2023

Miami-Dade Product Control

UCHARD NEET, P.E. E# 86488 CA#9885 10/20/2020

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ENGINEERINGEXPRESS.COM

CRETE-FLEX SS4, ¼" ULTRACON SS4, ¼"
CONCRETE & MASONRY ANCHORS
MIAMI DADE NOTICE OF ACCEPTANC UEWALT
701 EAST JOPPA ROAD
TOWNSON, MARYLAND 2128
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SCALE: NTS UNLESS NOTED

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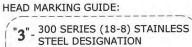
**PHILLIPS** TRIMFIT HEAD F)

HEX WASHER HEAD









"C"- LENGTH CODE

D - DEWALT LOGO

HEAD STYLE	WASHER DIAMETER	HEAD HEIGHT	ACROSS FLATS	
HEX WASHER HEAD	0.420"	0.190"	0.312"	
HEX FLANGE HEAD	0.620"	0.225"	0.312"	
PHILLIPS TRIMFIT HEAD	0.430"*	0.155"	N/A	

\*DIAMETER AT FLAT PORTION OF TRIMFIT HEAD