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# 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

# DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

**NOTICE OF ACCEPTANCE (NOA)** 

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. **23-62854**, titled "1/4"Crete-Flex, Ultracon SS4 & Aggre-Gator Concrete and Masonry Anchors", sheet 1 through 3 of 3, dated 10/20/2020 with last revision dated 11/16/2023, prepared by Engineering Express, signed and sealed by Richard Neet, P.E. on 03/19/2024, 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 # 24-0117.11 and consists of this page 1, evidence pages E-1, E-2, E-3, E-4, E-5 and E-6, as well as approval document mentioned above.

The submitted documentation was reviewed by Carlos M. Utrera, P.E.

MIAMI-DADE COUNTY
APPROVED

05/06/24

NOA No: 24-0312.08 Expiration Date: April 14, 2028 Approval Date: May 16, 2024

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.
3.	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 N	OA # 99-1227.13"		
1.	CTC 99-008	ASTM E488	02/14/98	G. Dotzler, P.E.
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.

Carlos M. Utrera, P.E.
Product Control Examiner
NOA No: 24-0312.08
Expiration Date: April 14, 2028

# 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"

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.
3.	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.
<b>5.</b>	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.
12.	HETI-08-C100A	ASTM C39	03/25/08	Candido F. Font, P.E.
13.	STTS 08001	TAS 114, App. E	05/25/08	Mark Mosbat, P.E.
14.	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.

Carlos M. Utrera, P.E. Product Control Examiner NOA No: 24-0312.08 Expiration Date: April 14, 2028

# 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"

1. 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.
3.	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.

Carlos M. Utrera, P.E. Product Control Examiner NOA No: 24-0312.08 Expiration Date: April 14, 2028

# 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.

Carlos M. Utrera, P.E. Product Control Examiner NOA No: 24-0312.08 Expiration Date: April 14, 2028

# NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### 3. Evidence submitted under NOA # 21-0201.08

#### 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. Statement of code conformance to the 7<sup>th</sup> edition (2020) of the FBC, prepared by Engineering Express, dated 03/28/2023, signed and sealed by Frank L. Bennardo, P.E.
- 2. 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.
- 3. Statement letter of no financial interest issued by Engineering Express, dated 01/05/2021, signed and sealed by Frank L. Bennardo, P.E.

Carlos M. Utrera, P.E. Product Control Examiner NOA No: 24-0312.08 Expiration Date: April 14, 2028

## NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### 4. New evidence submitted

#### A. DRAWINGS

1. Drawing No. 23-62854, titled "1/4"Crete-Flex, Ultracon SS4 & Aggre-Gator Concrete and Masonry Anchors", sheet 1 through 3 of 3, dated 10/20/2020 with last revision dated 11/16/2023, prepared by Engineering Express, signed and sealed by Richard Neet, P.E. on 03/19/2024.

### 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

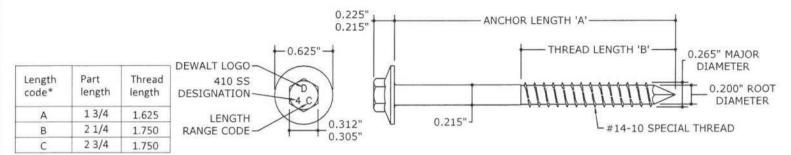
- 1. Statement letter of code conformance with the 8<sup>th</sup> edition (2023) of the FBC, issued by Engineering Express, dated 02/29/2024, signed and sealed by Richard Neet, P.E
- 2. Statement letter of no financial interest, issued by Engineering Express, dated 02/29/2024, signed and sealed by Richard Neet, P.E.

Carlos M. Utrera, P.E. Product Control Examiner NOA No: 24-0312.08 Expiration Date: April 14, 2028

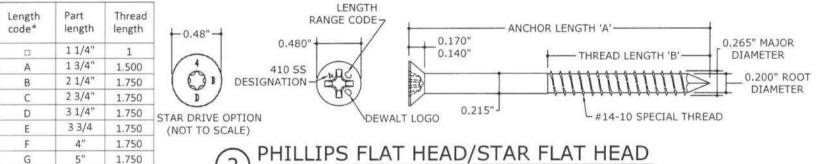
#14 CRETE-FLEX®

VALID FOR USE INSIDE AND OUTSIDE THE HVHZ (SEE LIMITATIONS HEREIN)

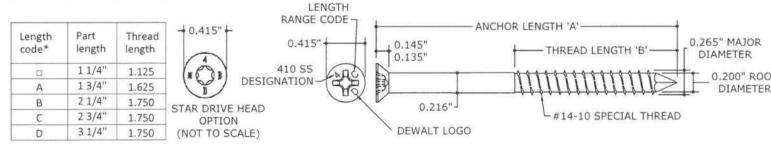
NON-SITE-SPECIFIC STRUCTURAL PERFORMANCE EVALUATION. A DESIGN PROFESSIONAL SHALL BE RESPONSIBLE FOR CERTIFYING THE APPLICATION OF THIS INFORMATION TO ANY SITE-SPECIFIC LOCATION.



# HEX FLANGE HEAD (HFH)



Length code*	Part length	Thread length	0.415" ANCHOR LENGTH 'A'  O.265" MAJOR THREAD LENGTH 'B'  O.265" MAJOR DIAMETER
	1 1/4"	1.125	
Α	1 3/4"	1.625	DESIGNATION 0.200" ROOT
В	2 1/4"	1.750	DIAMETER DIAMETER
С	2 3/4"	1.750	LENGTH 0.312" 0.215" #14-10 SPECIAL THREAD
D	3 1/4"	1.750	RANGE CODE 0.305"
E	3 3/4	1.750	
F	4"	1.750	O HEY MACHED HEAD (HMH)
G	5"	1.750	HEX WASHER HEAD (HWH)



PHILLIPS TRIM FIT/STAR TRIM FIT

# PRODUCT REVISED as complying with the Florida Building Code

24-0312.08 NOA-No.

Expiration Date 04/14/2028

Miami-Dade Product Control

# **GENERAL NOTES:**

- 1. THIS PRODUCT HAS BEEN DESIGNED & TESTED IN ACCORDANCE WITH THE THE FLORIDA BUILDING CODE EIGHTH EDITION (2023) AND THE FOLLOWING STANDARDS: ASTM E488 & TAS 114. THIS PRODUCT IS INTENDED FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE.
- ANCHORS ARE MANUFACTURED FROM 410 STAINLESS STEEL AND SHALL HAVE A CORROSION-RESISTANT SILVER-COLORED STALGARD COATING.
- ANCHOR INSTALLATION SHALL BE MADE IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS AND THIS APPROVAL
- CONCRETE SHALL CONFORM TO ACI 301 SPECIFICATIONS, WITH STRENGTH PROPERTIES AS SPECIFIED HEREIN. HOLLOW CONCRETE BLOCK SHALL CONFORM TO ASTM C90.
- ANCHORS SHALL NOT BE INSTALLED INTO CRACKED CONCRETE AS DEFINED IN ACI 355.
- 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
- 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.
- ANCHORS NOTED HEREIN HAVE A TENSILE YIELD STRENGTH OF Fy = 127.4 ksi AND A TENSILE ULTIMATE STRENGTH OF Fu = 189.7 ksi.
- EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE
- 10. ALTERATIONS, ADDITIONS OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE THIS CERTIFICATION.

#### **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	
<u>⊞</u> <u></u>		1"	3" O.C.	388 LB	178 LB
CONCRETE 3350 PSI MINIMUM	4.074"		6" O.C.	390 LB	310 LB
NC SII	1-3/4"	1-3/4"	6" O.C.	525 LB	450 LB
50 8		2.4/2"	3" O.C.	314 LB	467 LB
33		2-1/2"	6" O.C.	625 LB	645 LB
		1"	6" O.C.	390 LB	310 LB
	2"	1-3/4"	6" O.C.	525 LB	450 LB
		2-1/2"	6" O.C.	680 LB	645 LB
×		1"	6" O.C.	156 LB	84 LB
BLOCK		1-3/4"	6" O.C.	232 LB	264 LB
о В	1-1/4"		1-1/2" O.C.	101 LB	213 LB
CONCRETE		2-1/2"	3" O.C.	101 LB	247 LB
NC			6" O.C.	244 LB	264 LB
8	1-5/8"	1"	6" O.C.	248 LB	108 LB

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

RICHARD NEET . P. P.

PE# 86488 CA# 9885

THIS PRODUCT EVALUATION IS VALID FOR USE IN FLORIDA ONLY. USE OF THIS EVALUATION REQUIRES A REVIEW & CERTIFICATION BY A LOCAL DESIGN PROFESSIONAL WHO SHALL BE RESPONSIBLE FOR THE PROPER ADAPTATION OF THIS GENERAL PERFORMANCE EVALUATION TO ANY SITE-SPECIFIC PROJECT, CONTACT THIS OFFICE AT ENGINEERINGEXPRESS.COM/QUOTE FOR ASSISTANCE WITH YOUR PROJECT-SPECIFIC NEEDS & FOR ADAPTATION &

CERTIFICATION OF THIS DOCUMENT OUTSIDE OF FLORIDA

NOTE REGARDING USE OF THIS DOCUMENT & USE OUTSIDE FLORIDA: NON-SITE-SPECIFIC STRUCTURAL PERFORMANCE EVALUATION

EXPRESS.

MARCH 19, 2024

POSTAL ADDRESS: 234 NORTH FEDERAL HWY #766-BOCA RATON, FL 33431 ENGINEERINGEXPRESS.COM

701 EAST JOPPA ROA TOWNSON, MARYLAND 2 (800) 524-3244

DEWAL

TERMINOLOGY:

"CONNECTION". "EMBED" FOR

"HIGH-VELOCITY HURRICANE

"MAX" FOR "MAXIMUM, "N.T.S."

ZONE". "LB" FOR "POUND"

FOR "NOT TO SCALE", "PSF"

FOR "POUNDS PER SQUARE

FOOT (lb/ft2)", "SPECS" FOR

"SPECIFICATIONS", "&" FOR

"EXISTING, "STRUCT" FOR

"CONCRETE", CONTACT

ADDITIONAL

CLARIFICATIONS.

"STRUCTURE", "CONC," FOR

ENGINEERING EXPRESS FOR

ABBREVIATION/TERMINOLOGY

"AND", "MAX" FOR "MAXIMUM"

"W/" FOR "WITH", "EXIST" FOR

"EMBEDMENT", "DIST," FOR

"DISTANCE", "GA" FOR

"GAUGE", "HVHZ" FOR

THE FOLLOWING ABBREVIATIONS APPEAR IN THIS APPROVAL: "INC." FOR "INCORPORATION", "CORP." FOR "CORPORATION", "ALUM" FOR "ALUMINUM, "ASD" FOR "ALLOWABLE STRESS DESIGN". "ASTM" FOR "AMERICAN SOCIETY FOR TESTING AND MATERIALS", "CS" FOR "CARBON STEEL", "CONN" FOR

YRIGHT ENGINEERING EXPRES

23-62854

SCALE: NTS UNLESS NOTE



6"

5"

6"

H

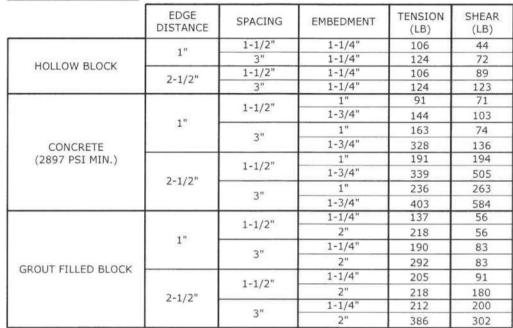
1.750

1.750

1.750

NON-SITE-SPECIFIC STRUCTURAL PERFORMANCE EVALUATION. A DESIGN PROFESSIONAL SHALL BE RESPONSIBLE FOR CERTIFYING THE APPLICATION OF THIS INFORMATION TO ANY SITE-SPECIFIC LOCATION.

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



# **ULTRACON SS4 THREAD LENGTHS:**

Length code*	Part length	Thread length
	1 1/4"	1 1/8"
А	1 3/4"	1 5/8"
В	2 1/4"	1 7/8"
С	2 3/4"	1 7/8"
D	3 1/4"	1 7/8"
E	3 3/4	1 7/8"
F	4"	1 7/8"

**EDGE** 

DISTANCE

r 0.25" MIN.

PILOT HOLE SHALL BE ¼" LONGER THAN EMBEDMENT

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

4.

TYPICAL SECTION

**PRODUCT REVISED** 

**Building Code** 

NOA-No.

as complying with the Florida

Expiration Date 04/14/2028

Miami-Dade Product Control

24-0312.08

# DRIVE AND HEAD DIMENSIONS:

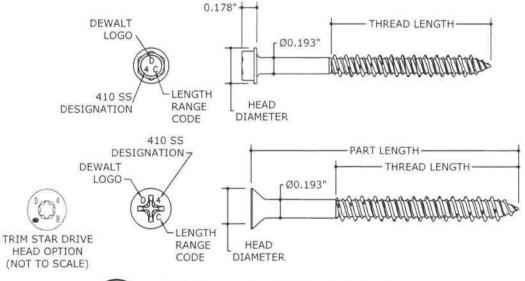
DRIVE/HEAD STYLE	DRIVE	HEAD DIAMETER
HEX WASHER HEAD (HWH)	5/16" HEX (AF)	0.543" NOM.
PHILLIPS TRIM FLAT HEAD (PTFH)	#3 PHILLIPS	0.415" NOM.
STAR TRIM FLAT HEAD (STFH)	STAR	0.415" NOM.

# THREAD AND SHANK DIMENSIONS:

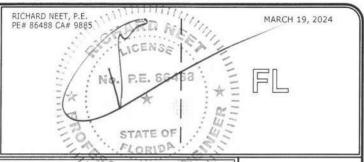
FASTENER DIMENSION	DIAMETER
HIGH THREAD DIAMETER	0.257" NOM.
LOW THREAD DIAMETER	0.209" NOM.
MINOR DIAMETER (THREAD ROOT)	0.174" NOM.
UNTHREADED SECTION DIAMETER	0.193"

# 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.



# /4"Ø ULTRACON SS4 SCREW



# NOTE REGARDING USE OF THIS DOCUMENT & USE OUTSIDE FLORIDA:

NON-SITE-SPECIFIC STRUCTURAL PERFORMANCE EVALUATION.
THIS PRODUCT EVALUATION IS VALID FOR USE IN FLORIDA
ONLY. USE OF THIS EVALUATION REQUIRES A REVIEW &
CERTIFICATION BY A LOCAL DESIGN PROFESSIONAL WHO
SHALL BE RESPONSIBLE FOR THE PROPER ADAPTATION OF
THIS GENERAL PERFORMANCE EVALUATION TO ANY
SITE-SPECIFIC PROJECT, CONTACT THIS OFFICE AT
ENGINEERINGEXPRESS.COM/QUOTE FOR ASSISTANCE
WITH YOUR PROJECT-SPECIFIC NEEDS & FOR ADAPTATION &
CERTIFICATION OF THIS DOCUMENT OUTSIDE OF FLORIDA.

# **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, ASTM G85.
- ULTRACON SS4 SCREW ANCHORS SHALL BE 410 SERIES STAINLESS STEEL WITH A SILVER STALGARD CORROSION RESISTANT COATING, ANCHOR YIELD STRENGTH Fy=164 KSI, ANCHOR ULTIMATE STRENGTH Fu=190 KSI.
- ANCHOR INSTALLATION SHALL BE MADE IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS AND THIS APPROVAL.
- PILOT HOLES FOR ANCHORS TESTED WERE MADE WITH A  $\%6^{\circ}$  DRILL BIT WITH A DIAMETER OF 0.206"Ø (+0.000/-0.008), 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.
  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.
  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.
- ANCHOR EDGE DISTANCE AND SPACING SHALL BE MEASURED
- FROM THE CENTERLINE OF EACH ANCHOR.

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

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

#### TERMINOLOGY:

THE FOLLOWING ABBREVIATIONS APPEAR IN THIS APPROVAL: "INC." FOR "INCORPORATION" "CORP," FOR "CORPORATION", "ALUM" FOR "ALUMINUM, "ASD" FOR "ALLOWABLE STRESS DESIGN", "ASTM" FOR "AMERICAN SOCIETY FOR TESTING AND MATERIALS", "CS" FOR "CARBON STEEL", "CONN" FOR "CONNECTION", "EMBED" FOR "EMBEDMENT", "DIST." FOR "DISTANCE", "GA" FOR "GAUGE", "HVHZ" FOR "HIGH-VELOCITY HURRICANE ZONE", "LB" FOR "POUND", "MAX" FOR "MAXIMUM, "N.T.S." FOR "NOT TO SCALE", "PSF" FOR "POUNDS PER SQUARE FOOT (lb/ft2)", "SPECS" FOR "SPECIFICATIONS", "&" FOR "AND", "MAX" FOR "MAXIMUM", "W/" FOR "WITH", "EXIST" FOR "EXISTING, "STRUCT" FOR "STRUCTURE", "CONC." FOR "CONCRETE". CONTACT ENGINEERING EXPRESS FOR ADDITIONAL ABBREVIATION/TERMINOLOGY CLARIFICATIONS

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701 EAST JOPPA ROA TOWNSON, MARYLAND 2 (800) 524-3244 ₹ × DEWALT #14 CRETI " AGGRE-GATOR C FBC 8TH ED. (202

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23-62854

SCALE: NTS UNLESS NOTE



NON-SITE-SPECIFIC STRUCTURAL PERFORMANCE EVALUATION. A DESIGN PROFESSIONAL SHALL BE RESPONSIBLE FOR CERTIFYING THE APPLICATION OF THIS INFORMATION TO ANY SITE-SPECIFIC LOCATION.

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

	EDGE DISTANCE	SPACING	EMBEDMENT	TENSION (LB)	SHEAR (LB)
HOLLOW BLOCK	2"	3"	1-1/4"	156	187
HOLLOW BLOCK	4"	3"	1-1/4"	176	211
	2"	3"	1-1/4"	166	207
CDOUT ETLIED BLOCK	2	3	2"	325	473
GROUT FILLED BLOCK	4"	1-1/2"	1-1/4"	149	282
	4	1-1/2	2"	403	477
			1"	118	N/A
	1-1/4"	3"	1-3/8"	289	N/A
			1-3/4"	294	N/A
			1"	118	204
	1-1/2"	3"	1-3/8"	289	259
CONCRETE			1-3/4"	294	305
(2220 PSI MIN.)			1"	194	204
(2220 101 11111)		1-1/2"	1-3/8"	251	259
	2-1/2"		1-3/4"	319	305
	1100 11000	211	1-1/2"	N/A	200 †
		3"	1-3/4"	N/A	199 ††
			1"	194	226
	3"	1-1/2"	1-3/8"	251	413
			1-3/4"	319	488
			1"	248	N/A
	1-1/4"	3"	1-3/8"	294	N/A
	55-27-50W/A		1-3/4"	294	N/A
			1"	248	255
	1-1/2"	3"	1-3/8"	294	305
CONCRETE			1-3/4"	294	305
(3275 PSI MIN.)			1"	251	255
(5275 151 11111)	2-1/2"	1-1/2"	1-3/8"	251	305
	Sec. 0.020.00	10400 Apress	1-3/4"	319	305
			1"	251	226
	3"	1-1/2"	1-3/8"	251	510
		11.00	1-3/4"	319	515

# AGGRE-GATOR THREAD LENGTHS:

0.190"Ø

**EDGE** 

DISTANCE

HEAD

HEIGHT

HEAD

WASHER

DIAMETER

Length code*	Length range of anchor	Part length	Thread length
0	1 < 1 1/2	1 1/4"	1 1/8"
А	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"
Е	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

HEX WASHER HEX FLANGE TRIM STAR DRIVE

HEAD

# NOTE:

- 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 ¾" 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 (HWH)	0.420"	0.190"	0.312"
HEX FLANGE HEAD (HFH)	0.620"	0.225"	0.312"
PHILLIPS TRIM FLAT HEAD (PTFH)	0.430"*	0.155"	N/A
STAR TRIM FLAT HEAD (STFH)	0.430"*	0.155"	N/A

\*DIAMETER AT FLAT PORTION OF TRIMFIT HEAD



NON-SITE-SPECIFIC STRUCTURAL PERFORMANCE EVALUATION
THIS PRODUCT EVALUATION IS VALID FOR USE IN FLORIDA
ONLY. USE OF THIS EVALUATION REQUIRES A REVIEW &
CERTIFICATION BY A LOCAL DESIGN PROFESSIONAL WHO
SHALL BE RESPONSIBLE FOR THE PROPER ADAPTATION OF
THIS GENERAL PERFORMANCE EVALUATION TO ANY
SITE-SPECIFIC PROJECT. CONTACT THIS OFFICE AT ENGINEERINGEXPRESS.COM/QUOTE FOR ASSISTANCE WITH YOUR PROJECT-SPECIFIC NEEDS & FOR ADAPTATION & CERTIFICATION OF THIS DOCUMENT OUTSIDE OF FLORIDA.

# **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.
- 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 ACCEPTANCE.
- 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). ALLOWABLE LOADS SHOWN HEREIN HAVE BEEN CALCULATED
- DIRECTLY FROM THE TEST REPORTS REFERENCED BELOW PER
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  ANCHOR EDGE DISTANCES, EMBEDMENT, AND SPACING BELOW THOSE SHOWN IN DESIGN TABLES HEREIN ARE NOT ACCEPTABLE
- 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 INTENDED.
- ALTERATIONS, ADDITIONS OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE THIS

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RICHARD NEET, P.E. PE# 86488 CA# 9885 MARCH 19, 2024

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> > 21286 \* ×

701 EAST JOPPA ROA TOWNSON, MARYLAND 2 (800) 524-3244

DEWALT #14 CRETE-FLEX, 1/4 1/4" AGGRE-GATOR CONCRETE FBC 8TH ED. (2023) | MIAMI

7AL (20.21685) CCB RWN ATE	æ	REMARKS	DRWN	DRWN CHKD	DAT
MRT RWN	R	EV. SUBMITTAL (20-21685)	CCB	RWN	10/20/
	20	23 FBC UPDATE	MRT	RWN	11/16/
	4		3	7	
	4		1		
	7			,	1

23-62854

SCALE: NTS UNLESS NOTED





**PHILLIPS** 

TRIMFIT

HEAD

0





HEAD











HEAD OPTION



SEE CAPACITY

TABLE FOR

MAX BUCK SIZE

0.242"/.249"Ø

HIGH THREAD O.D.

0.200"/.212"Ø REF.

LOW THREAD

SIDE VIEW

PRODUCT REVISED

NOA-No.

as complying with the Florida Building Code

Expiration Date 04/14/2028

Miami-Dade Product Control

24-0312.08

-SUBSTRATE

YPICAL SECTION

-PART LENGTH-

THREAD LENGTH-

0.165"/.177"Ø REF.

ROOT DIAMETER

"Ø AGGRE-GATOR SCREW

"C.B" EXAMPLE OF LENGTH CODE

D - DEWALT LOGO

HEAD MARKING GUIDE: