



BUILDING CODE COMPLIANCE OFFICE (BCCO)  
PRODUCT CONTROL DIVISION

MIAMI-DADE COUNTY, FLORIDA  
METRO-DADE FLAGLER BUILDING  
140 WEST FLAGLER STREET, SUITE 1603  
MIAMI, FLORIDA 33130-1563  
(305) 375-2901 FAX (305) 375-2908

**NOTICE OF ACCEPTANCE (NOA)**

[www.miamidade.gov/buldingcode](http://www.miamidade.gov/buldingcode)

**Elco Fastening Systems, LLC.**  
**5110 Falcon Road.**  
**Rockford, IL 61109**

**SCOPE:**

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where 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 Division (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. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division 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: Ultracon Concrete Screw Anchors.**

**APPROVAL DOCUMENT:** Drawing No.07-348, Sheets 1 through 2 of 2, titled "Ultracon Concrete Anchors" dated 04/18/07, with last revision on 06/08/07, prepared by Thornton Tomasetti, signed and sealed by John W. Knezevich, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance (NOA) number and expiration date by the Miami-Dade County Product Control Division.

**MISSILE IMPACT RATING: None**

**LABELING:** Each box shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved or MDCPCA", unless otherwise noted herein.

**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 # 04-0721.01 and consists of this page 1, evidence pages E-1 and E-2, as well as approval document mentioned above.

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



*Signature*  
9/10/07

**NOA No: 07-0425.01**  
**Expiration Date: January 8, 2011**  
**Approval Date: October 4, 2007**  
**Page 1**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**A. DRAWINGS**

- 1 Drawing No.07-348, Sheets 1 through 2 of 2, titled "Ultracon Concrete Anchors", dated 04/18/07, with last revision on 06/08/07, prepared by Thornton Tomasetti, signed and sealed by John W. Knezevich, P.E.

**B. TESTS (evidence submitted under NOA # 04-0721.01)**

1.	Laboratory	Test Report	Date	Signature
2.	Heti 01-5013	Addendum	06/21/02	H. M. Medina PE.
3.	PRI IRT 009 02 01	TAS 114-95	01/16/02	C. L. Thomas, PE
4.	Heti 01-5013	ASTM E488	06/01/01	H. M. Medina PE
5.	Heti 01-5069	ASTM E488	09/17/01	H. M. Medina PE
6.	Heti 03-C600	ASTM C39	08/13/03	R. D. Seda PE
7.	Heti 03-C601	ASTM C39	12/19/03	R. D. Seda PE
8.	Heti 03-1127	ASTM E488	12/02/03	R. D. Seda PE
9.	Heti 03-1136	ASTM E488	12/02/03	R. D. Seda PE
10.	Heti 03-1153	ASTM E488	12/23/03	R. D. Seda PE
11.	Heti 03-1159	ASTM E488	12/02/03	R. D. Seda PE
12.	Heti 03-1161	ASTM E488	12/02/03	R. D. Seda PE
13.	Heti 03-1164	ASTM E488	12/12/03	R. D. Seda PE
14.	Heti 03-1165	ASTM E488	12/12/03	R. D. Seda PE
15.	Heti 03-1173	ASTM E488	12/12/03	R. D. Seda PE
16.	Heti 03-1175	ASTM E488	12/12/03	R. D. Seda PE
17.	Heti 03-1177	ASTM E488	12/12/03	R. D. Seda PE
18.	Heti 05-1501	ASTM E488	08/31/05	I. Ghia PE

**C. CALCULATION**

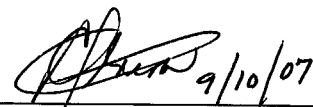
None

**D. MATERIAL CERTIFICATIONS (evidence submitted under NOA # 04-0721.01)**

1. Elco Textron Inc. shop drawing part No. ¼ FLT HD Tapcon, ¼ Flange HD Tapcon, ¼ FTL HD Tapcon # 12 HD & ¼ Hex HD Tapcon.

**E. STATEMENTS (evidence submitted under NOA # 04-0721.01)**

1. Code Compliance letter issued by LZA Technology on 07/07/04, signed and sealed by V.J. Knezevich, PE.
2. No interest letter issued by LZA Technology on 07/19/04 signed by J.W. Knezevich and notarized by R. Hernandez.
3. No change letter issued by Elco Textron on 02/13/01 and signed by M. Janusz



Carlos M. Utrera, P.E.  
Product Control Examiner  
NOA No 07-0425.01  
Expiration Date: January 8, 2011  
Approval Date: October 4, 2007

Elco Fastening Systems, LLC.

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**F. OTHERS**

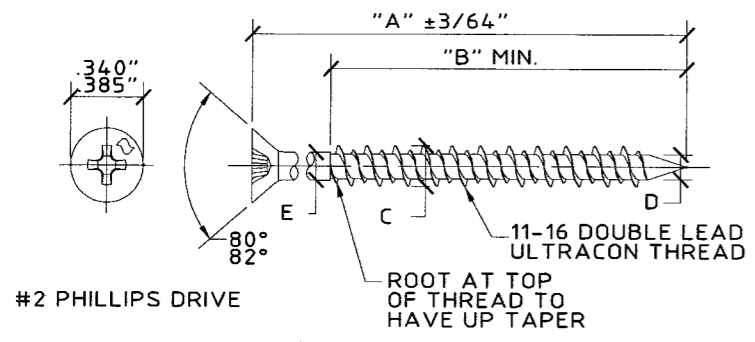
1. Certificates of conversion and Formation of Elco Fastening Systems, LLC. issued by the State of Delaware on November 17, 2005, signed by Harriet Smith Windsor, Secretary of State.
2. Name change statement, requesting NOA # 04-0721.01 be rescinded, issued by Elco Fastening Systems, LLC. dated 04/17/07, signed by Scott Anderson.
3. No financial interest and code compliance letters issued by Thornton Tomasetti, dated 04/18/07, signed and sealed by John W. Knezevich, P.E.
4. Statement by Elco Fastening Systems, LLC. explaining that Elco Textron Inc., simply changed from a C-Corporation to a Limited Liability Company, signed by Scott Nelson, General Manager.

**END OF THIS ACCEPTANCE**



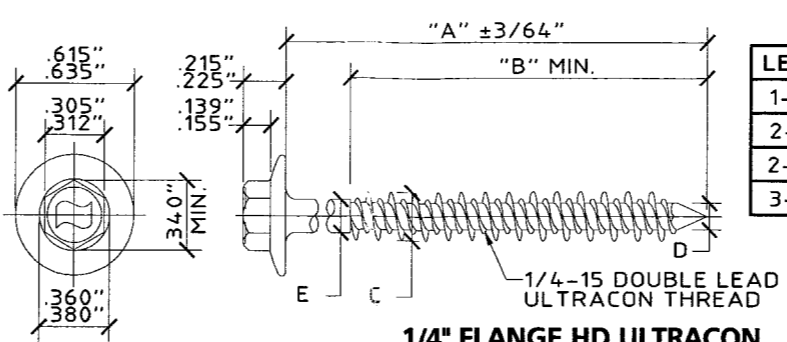
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**Carlos M. Utrera, P.E.**  
**Product Control Examiner**  
**NOA No 07-0425.01**  
**Expiration Date: January 8, 2011**  
**Approval Date: October 4, 2007**



LENGTH	"A"	"B"
1-1/4"	1.250"	.875"
1-3/4"	1.750"	1.313"
2-1/4"	2.250"	1.750"
2-3/4"	2.750"	1.750"
3-1/4"	3.250"	1.750"
3-3/4"	3.750"	1.750"
4"	4.000"	1.750"

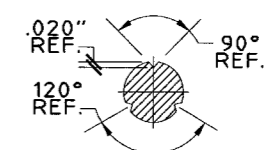
**3/16" PHILLIPS FLAT HD ULTRACON**  
SCALE: FULL SIZE



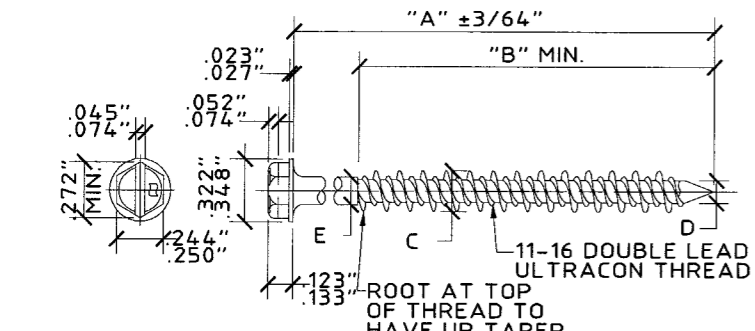
LENGTH	"A"	"B"
1-3/4"	1.750"	1.500"
2-1/4"	2.250"	1.750"
2-3/4"	2.750"	1.750"
3-1/4"	3.250"	1.750"

**1/4" FLANGE HD ULTRACON**  
SCALE: FULL SIZE

3 SPIRAL LONGITUDINAL "V" NOTCHES ON HIGH THREAD DIA. LOW THREAD MAY BE SLIGHTLY NOTCHED ALSO.

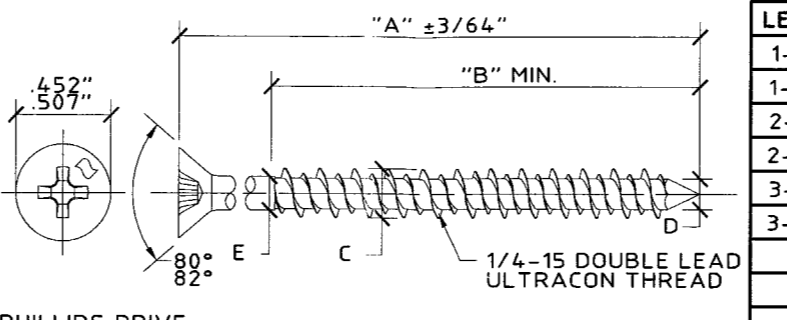


**HIGH THREAD SECTION FOR ALL ANCHORS**



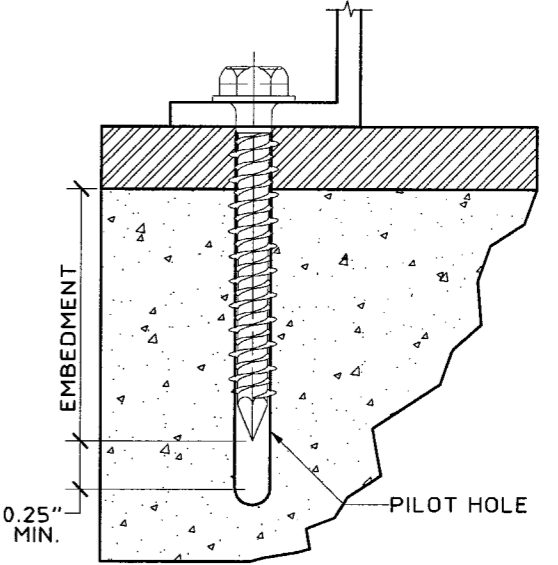
LENGTH	"A"	"B"
1-1/4"	1.250"	1.000"
1-3/4"	1.750"	1.500"
2-1/4"	2.250"	1.750"
2-3/4"	2.750"	1.750"
3-1/4"	3.250"	1.750"
3-3/4"	3.750"	1.750"
4"	4.000"	1.750"

**3/16" SLOTTED HEX WASHER HD ULTRACON**  
SCALE: FULL SIZE

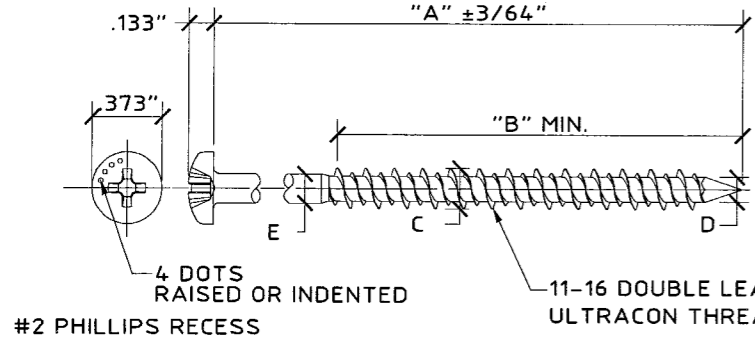


LENGTH	"A"	"B"
1-1/4"	1.250"	.875"
1-3/4"	1.750"	1.313"
2-1/4"	2.250"	1.750"
2-3/4"	2.750"	1.750"
3-1/4"	3.250"	1.750"
3-3/4"	3.750"	1.750"
4"	4.000"	1.750"
5"	5.000"	1.750"
6"	6.000"	1.750"

**1/4" PHILLIPS FLAT HD ULTRACON**  
SCALE: FULL SIZE

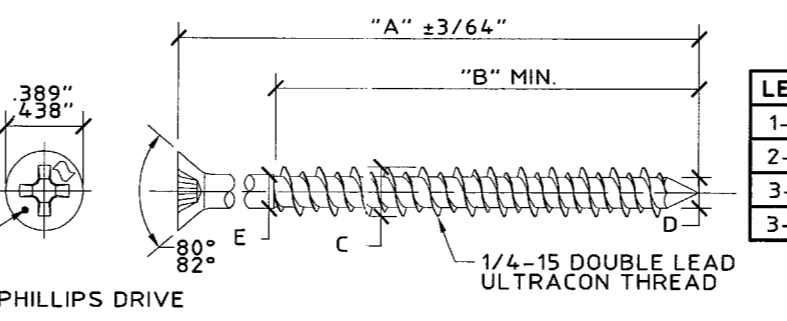


**TYPICAL SECTION**



LENGTH	"A"	"B"
1-3/4"	1.750"	1.500"
2-1/4"	2.250"	1.750"
2-3/4"	2.750"	1.750"
3-1/4"	3.250"	2.000"

**3/16" PHILLIPS PAN HD ULTRACON**  
SCALE: FULL SIZE



LENGTH	"A"	"B"
1-3/4"	1.750"	1.313"
2-3/4"	2.750"	1.750"
3-1/4"	3.250"	1.750"
3-3/4"	3.750"	1.750"

**1/4" TRIMFIT® ULTRACON**  
SCALE: FULL SIZE

**\* SEE ULTRACON NOMINAL DIMENSIONS SCHEDULE ON SHEET 2 FOR C, D, E DIMENSIONS**

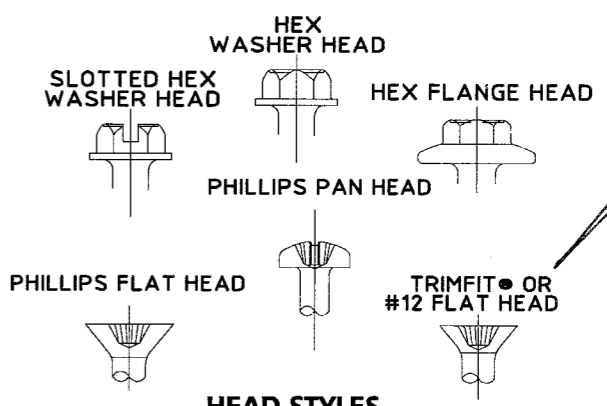
**GENERAL NOTES**

- THESE EVALUATION DOCUMENTS REPRESENT ELCO ULTRACON ANCHORS, ANALYZED WITH THE PROVISION SET FOR THE ISSUANCE OF A NOTICE OF ACCEPTANCE (NOA) BY MIAMI-DADE COUNTY PRODUCT CONTROL DIVISION FOR HIGH VELOCITY HURRICANE ZONE (HVHZ) OF FLORIDA BUILDING CODE 2004, WITH 2005 AND 2006 AMENDMENTS.
- THESE EVALUATION DOCUMENTS ARE GENERIC AND DO NOT INCLUDE INFORMATION FOR SITE-SPECIFIC APPLICATION.
- USE OF THESE EVALUATION DOCUMENTS SHALL COMPLY WITH CHAPTER 61G15-23 OF THE FLORIDA ADMINISTRATIVE CODE.
- ANY MODIFICATION OR ADDITION TO THESE EVALUATION DOCUMENTS ARE NOT PERMITTED.
- ELCO ULTRACON IS A CORROSION RESISTANT MASONRY & CONCRETE FASTENER FINISHED WITH STALGARD COATING.
- ELCO ULTRACON ANCHORS REPRESENT A NAME CHANGE ONLY FROM THE ELCO TEXTRON TAPCON ANCHOR. ELCO ULTRACON ANCHOR CAPACITIES DETERMINED FROM TESTING COMPLETED AS ELCO TAPCON. REFERENCE HURRICANE ENGINEERING & TESTING INC. (HETI) TEST REPORT No. HETI-01-5013, HETI-01-5069, HETI-03-1127, HETI-03-1136, HETI-03-1173 AND HETI-05-1501.
- CONCRETE SHALL CONFORM TO ACI-318, MINIMUM STRENGTHS AS NOTED AND HOLLOW CONCRETE BLOCKS SHALL CONFORM TO BLOCKS SHALL CONFORM TO ASTM C-90.

- HEAD MARKING: ELCO ULTRACON MASONRY FASTENERS ARE IDENTIFIED WITH EITHER THE ELCO LOGO (E) OR FOUR DOTS IN THE CASE OF THE PHILLIPS PAN HEAD. TRIMFIT® FASTENERS HAVE THE ELCO LOGO ALONG WITH 1 DOT (1/4" DIA) OR 2 DOTS (5/16" DIA). HEX WASHER HEAD ULTRACON FASTENERS HAVE ELCO LOGO AND 5 INDICATING 5/16" DIA.
- ALLOWABLE LOAD SHOWN = ULTIMATE LOAD DIVIDED BY 4. NO ALLOWABLE STRESS INCREASE HAS BEEN USED IN PREPARATION OF THIS DOCUMENT.
- ANCHOR CAPACITY AT SPECIFIC EDGE DISTANCE ARE BASED ON TEST RESULTS. EDGE DISTANCE BELOW THESE TABULATED VALUES ARE NOT ACCEPTABLE.
- CENTER TO CENTER ANCHOR SPACING FOR 100% ALLOWABLE LOAD IS 16 DIAMETERS. CLOSER SPACING IS NOT ACCEPTABLE.

**INSTALLATION INSTRUCTIONS:**

- ANCHOR INSTALLATION SHALL BE MADE IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS AND THIS MIAMI-DADE COUNTY, FLORIDA BCCO NOTICE OF ACCEPTANCE.
  - DRILL HOLES AT LEAST 1/4" DEEPER THAN ULTRACON EMBEDMENT.
  - SEE DRILL BIT TABLE TO DETERMINE APPROPRIATE DRILL BIT DIAMETER CORRESPONDING TO FASTENER DIAMETER.
  - CLEAN HOLES OF DEBRIS AND DUST BEFORE INSTALLATION OF ANCHOR.
  - ANCHORS SHALL NOT BE INSTALLED BEFORE THE CONCRETE HAS DEVELOPED ITS DESIGN STRENGTH.



**HEAD STYLES**

**Thornton Tomasetti**  
330 N. Andrews Ave., Suite 450 • Ft. Lauderdale, FL 33301  
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Website: www.ThorntonTomasetti.com  
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**ULTRACON CONCRETE ANCHORS**  
**ELCO®**  
FASTENING SYSTEMS, LLC  
5110 FALCON ROAD  
ROCKFORD, ILLINOIS 61109  
(800) 435-7213

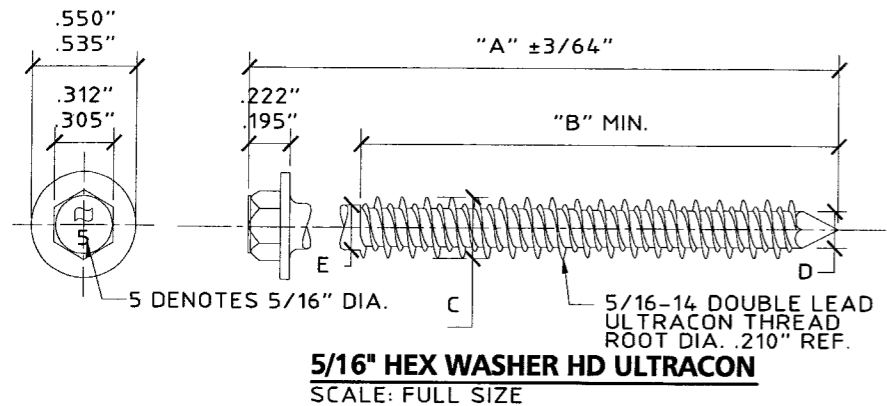
J.W. Knezevich  
Professional Engineer  
FL License No.: PE 0041961

JUN 08 2007

no	date	description
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1	06/08/2007	COUNTY COMMENTS

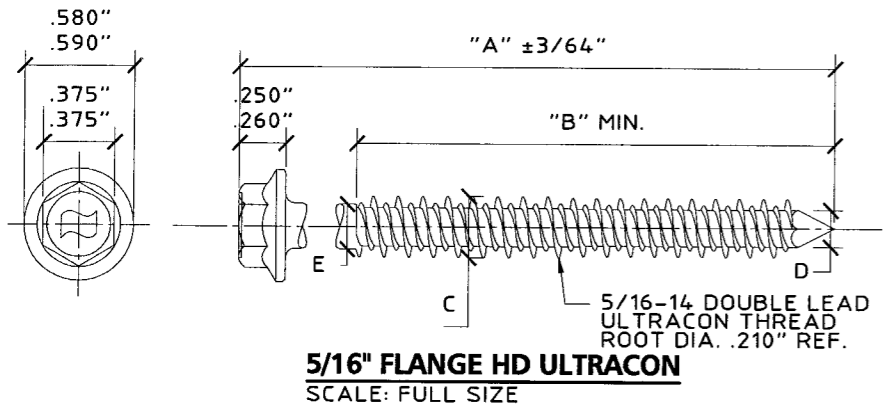
date 04/18/2007  
scale AS NOTED drawn by MCR  
design by TLF checked by JWK  
drawing no. 07-348  
sheet 1 of 2

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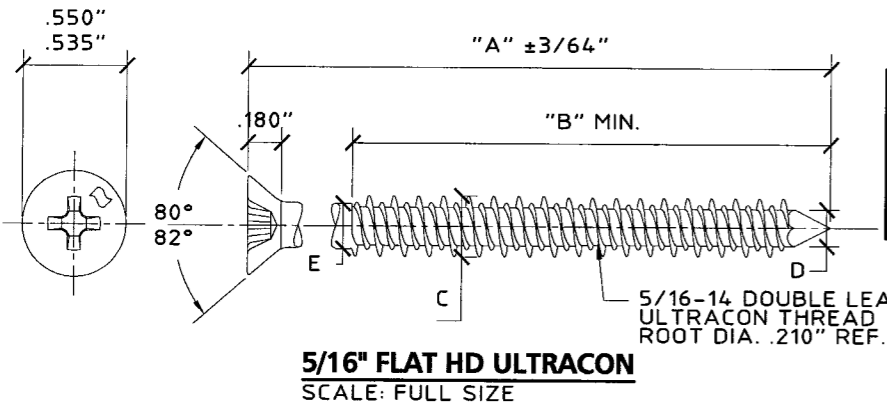
LENGTH	"A"	"B"
2"	2.000"	1.750"
2-1/4"	2.250"	2.000"
2-3/4"	2.750"	2.000"
3"	3.000"	2.000"
3-1/4"	3.250"	2.000"
4"	4.000"	2.000"

**5/16" HEX WASHER HD ULTRACON**  
SCALE: FULL SIZE



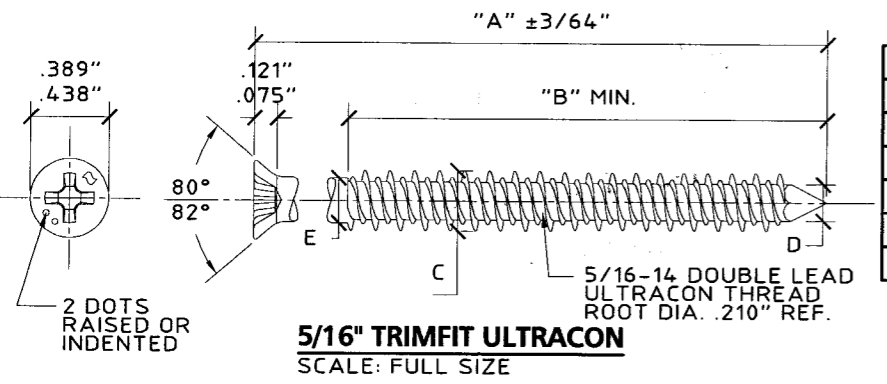
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2-1/4"	2.250"	2.000"
2-3/4"	2.750"	2.000"
3"	3.000"	2.000"
3-1/4"	3.250"	2.000"
4"	4.000"	2.000"

**5/16" FLANGE HD ULTRACON**  
SCALE: FULL SIZE



LENGTH	"A"	"B"
3"	3.000"	2.000"
4"	4.000"	2.000"
5"	5.000"	2.000"
6"	6.000"	2.000"

**5/16" FLAT HD ULTRACON**  
SCALE: FULL SIZE



LENGTH	"A"	"B"
2-1/4"	2.250"	1.750"
2-3/4"	2.750"	2.000"
3-1/4"	3.250"	2.000"
3-3/4"	3.750"	2.000"
4"	4.000"	2.000"
5"	5.000"	2.000"

**5/16" TRIMFIT ULTRACON**  
SCALE: FULL SIZE

2,700 P.S.I. CONCRETE				
ANCHOR DIAMETER (IN.)	EDGE DISTANCE (IN.)	EMBED. DEPTH (IN.)	ALLOW. TENSION	ALLOW. SHEAR
3/16	1	1	105	155
	1	1-3/8	185	195
	1	1-3/4	270	195
	2-1/2	1	110	155
	2-1/2	1-3/8	185	215
	2-1/2	1-3/4	315	195
1/4	1	1	150	155
	1	1-3/8	290	265
	1	1-3/4	460	225
	2-1/2	1	200	285
	2-1/2	1-3/8	375	395
	2-1/2	1-3/4	475	445

3,500 P.S.I. CONCRETE				
ANCHOR DIAMETER (IN.)	EDGE DISTANCE (IN.)	EMBED. DEPTH (IN.)	ALLOW. TENSION	ALLOW. SHEAR
5/16	1-1/4	1	184	220
	1-1/4	1-3/4	526	331
	2-3/16	1	209	375
	2-3/16	1-3/4	603	801
	3-1/8	1	213	450
	3-1/8	1-3/4	661	851
	3-1/8	2	837	851

GROUT FILLED MASONRY BLOCK				
ANCHOR DIAMETER (IN.)	EDGE DISTANCE (IN.)	EMBED. DEPTH (IN.)	ALLOW. TENSION	ALLOW. SHEAR
3/16	2-1/2	1-3/4	220	170
	2-1/2	2-1/4	275	245
1/4	2-1/2	1-3/4	285	340
	2-1/2	2-1/4	515	315
5/16	2-1/2	1-3/4	285	460
	2-1/2	2-1/4	365	465

HOLLOW MASONRY BLOCK				
ANCHOR DIAMETER (IN.)	EDGE DISTANCE (IN.)	EMBED. DEPTH (IN.)	ALLOW. TENSION	ALLOW. SHEAR
3/16	1	1-1/4	105	135
	2-1/2	1-1/4	105	140
1/4	1	1-1/4	175	177
	2-1/2	1-1/4	175	370
5/16	1-9/16	1-1/4	255	177
	3-1/8	1-1/4	286	364

ULTRACON NOMINAL DIMENSIONS			
ANCHOR DIAMETER (IN.)	"C" THREAD DIA. (IN.)	"D" MINOR DIA. (IN.)	"E" SHANK DIA. (IN.)
3/16	0.210	0.123	0.146
1/4	0.255	0.161	0.189
5/16	0.315	0.210	0.236

PROPER MASONRY DRILL BITS:

PART DIA.	DRILL BIT
3/16"	5/32" DIAMETER ELCO ULTRACON BIT
1/4"	3/16" DIAMETER ELCO ULTRACON BIT
5/16"	1/4" DIAMETER ELCO ULTRACON BIT

REVISIONS REVIEWED  
 on 07/04/2007 by [Signature]  
 Approved by [Signature] 07-04-25-01  
 Revisions 01/08/2011  
 Division

**Thornton Tomasetti**  
 330 N. Andrews Ave., Suite 450 • Ft. Lauderdale, FL 33301  
 954.522.3690 • F 954.522.3691 • COA # 7519  
 Website: www.ThorntonTomasetti.com  
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**ULTRACON CONCRETE ANCHORS**  
**ELCO**  
 FASTENING SYSTEMS, LLC  
 5110 FALCON ROAD  
 ROCKFORD, ILLINOIS 61109  
 (800) 435-7213

J.W. Knezevich  
 Professional Engineer  
 FL License No.: PE 0041961

JUN 08 2007

no.	date	description
0	04/04/2007	TLF
1	06/08/2007	TLF

date 04/18/2007  
 scale AS NOTED  
 design by TLF  
 checked by JWK  
 drawing no. 07-348  
 sheet 2 of 2