MIAMI-DADE COUNTY
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) 372-6339
www.maimidade.goc/buildingcode

NOTICE OF ACCEPTANCE (NOA)

ITW Buildex.
1349 West Bryn Mawr Ave.
Itasca, IL 60143

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 High Velocity Hurricane Zone of the Florida Building Code.
DESCRIPTION: Tapcon Masonry Fasteners.
APPROVAL DOCUMENT: Drawing No.**08-ITW-0004**, titled "Tapcon Masonry Fasteners", Sheets 1 and 2 of 2, dated 03/06/08, with no revision, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E, bearing the Miami-Dade County Product Control Renewal 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 unit or box shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", 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 **renews NOA # 03-0722.05** and consists of this page, evidence page E-1 as well as approval document mentioned above.
The submitted documentation was reviewed by **Carlos M. Utrera, P.E.**

MIAMI-DADE COUNTY APPROVED

03/20/08

NOA No: 07-1126.10
Expiration Date: February 20, 2013
Approval Date: April 10, 2008

NOTICE OF ACCEPTANCE: EVIDENCE PAGE

A. DRAWINGS

1. Drawing No. **08-ITW-0004**, titled "Tapcon Masonry Fasteners", Sheets 1 and 2 of 2, dated 03/06/08, with no revision, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E.

B. TESTS

	Laboratory	Test Report	Date	Signature
01.	Heti 00-4160	ASTM E488	10/25/00	H. M. Medina, P.E.
02.	Heti 00-4092	ASTM E488	02/25/00	H. M. Medina, P.E.
03.	Heti 00-4153	ASTM E488	10/25/00	H. M. Medina, P.E
04.	Heti 00-4072	ASTM E 488	02/25/00	H. M. Medina, P.E.
05.	Heti 01-5029	ASTM E.488	05/07/01	H. M. Medina, P.E.
06.	Heti 01-5027	ASTM E 488	05/07/01	H. M. Medina, P.E
07.	PRI 01078	Protocol PA 114	08/27/01	C. L. Thomas, P.E
08.	PRI 01079	Protocol PA 114	08/27/01	C. L. Thomas, P.E
09.	ARL 30291	ASTM E488	01/22/02	C. A. Hamon, P.E
10.	ARL 30292	ASTM E488	01/29/02	C. A. Hamon, P.E
11.	ARL 30299	ASTM E488	01/30/02	C. A. Hamon, P.E
12.	ARL 30294	ASTM E488	01/30/02	C. A. Hamon, P.E.
13.	Heti 01-C109	ASTM C39	01/16/01	H. M. Medina, P.E
14.	MTS 25-7654-PS	Protocol PA 114	06/03/96	H. M. Medina, P.E

"Evidence Submitted under NOA # 03-0722.05"

C. CALCULATION

1. None.

D. QUALITY ASSURANCE

1. Miami-Dade Building Code Compliance Office (BCCO)

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

1. Code Compliance letter issued by Knezevich & Associates, Inc. on 06/21/01, signed and sealed by V.J. Knezevich, PE.
2. No change letter issued by ITW Buildex on 11/07/03 and signed by D. Kenny.
3. No change letter issued by ITW Buildex, dated 11/08/07, signed by Michael Gong, Ph.D.

G. OTHER

1. Notice of Acceptance No. **03-0722.05**, issued to ITW, Inc./Division of Buildex, approved on 12/11/03 and expiring on 02/20/08.

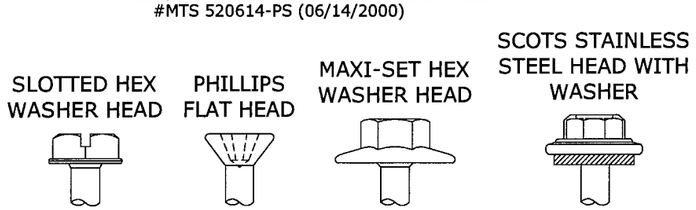
03/20/08

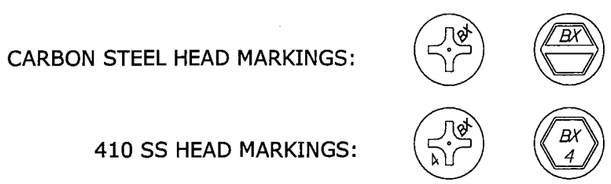
Carlos M. Utrera, P.E.
Product Control Examiner
NOA No 07-1126.10
Expiration Date: February 20, 2013
Approval Date: April 10, 2008

ITW Buildex TAPCON®
CONCRETE & MASONRY ANCHOR

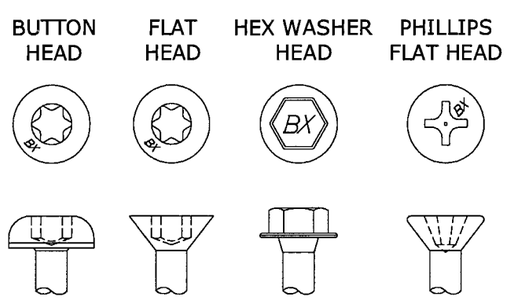
GENERAL NOTES:

1. THIS PRODUCT HAS BEEN DESIGNED & TESTED IN ACCORDANCE WITH THE 2007 FLORIDA BUILDING CODE(HIGH VELOCITY HURRICANE ZONE) AND THE FOLLOWING STANDARDS: ASTM E488, ASTM G85, & TAS 114.
2. ANCHORS ARE MANUFACTURED FROM HEAT-TREATED STEEL WITH AN ALTERNATING HIGH-LOW THREAD FORM AND SHALL HAVE CORROSION-RESISTANT COATINGS AS DESCRIBED BELOW:
   - ULTRASHIELD OR WHITE ULTRASHIELD OR
   - BLUE OR SILVER CLIMASEAL OR
   - CLIMASHIELD
3. ANCHOR INSTALLATION SHALL BE MADE IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS AND THIS NOTICE OF ACCEPTANCE.
4. 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.
5. REFERENCE THE FOLLOWING TEST REPORTS:
   - HURRICANE ENGINEERING & TESTING, INC.
     - #HETI-00-4160 (10/25/2000)
     - #HETI-00-4092 (02/25/2000)
     - #HETI-00-4153 (10/25/2000)
     - #HETI-00-4072 (02/25/2000)
     - #HETI-01-5029 (05/07/2001)
     - #HETI-01-5027 (05/07/2001)
     - #HETI-01-C109 (01/16/2001)
   - PRI ASPHALT TECHNOLOGIES, INC.
     - #PRI 01078 (08/27/2001)
     - #PRI 01079 (08/27/2001)
   - APPLIED RESEARCH LABORATORIES
     - #ARL 30291 (01/22/2002)
     - #ARL 30292 (01/29/2002)
     - #ARL 30299 (01/30/2002)
     - #ARL 30294 (01/30/2002)
   - CENTER FOR APPLIED ENGINEERING, INC.
     - #MTS 25-7654-PS (06/03/1996)
   - CELOTEX CORPORATION TESTING SERVICES
     - #MTS 520614-PS (06/14/2000)

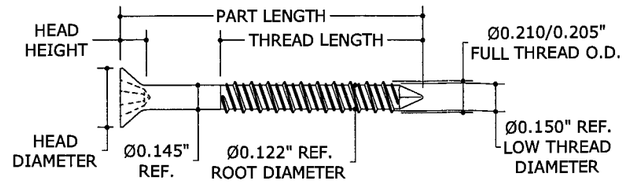




1/1 3/16" OR 1/4" HEAD STYLES
N.T.S.

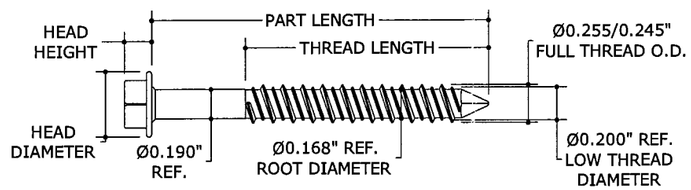


2/1 5/16" XL HEAD STYLES
N.T.S.



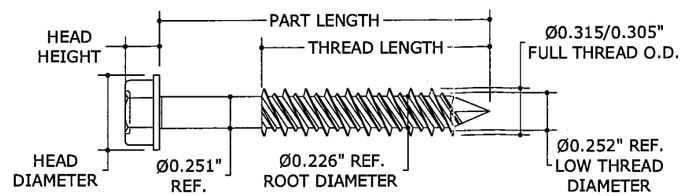
1. PILOT HOLE SHALL BE 1/4" LONGER THAN EMBEDMENT WITH 0.171" DIAMETER.
2. ALLOWABLE LOADS ARE BASED ON AVERAGE ULTIMATE TEST LOAD DIVIDED BY 4.
3. CENTER TO CENTER DISTANCE OF 2-1/4" IS NECESSARY FOR 100% CAPACITY AND 1-1/8" FOR 50% CAPACITY.
4. REFERENCE SHEET 2 FOR ADDITIONAL ANCHOR DIMENSIONS.

3/1 3/16" TAPCON
1'-0" = 1'-0" SIDE VIEW



1. PILOT HOLE SHALL BE 1/4" LONGER THAN EMBEDMENT WITH 0.200" DIAMETER.
2. ALLOWABLE LOADS ARE BASED ON AVERAGE ULTIMATE TEST LOAD DIVIDED BY 4.
3. CENTER TO CENTER DISTANCE OF 3" IS NECESSARY FOR 100% CAPACITY AND 1-1/2" FOR 50% CAPACITY.
4. REFERENCE SHEET 2 FOR ADDITIONAL ANCHOR DIMENSIONS.

4/1 1/4" TAPCON
1'-0" = 1'-0" SIDE VIEW



1. PILOT HOLE SHALL BE 1/4" LONGER THAN EMBEDMENT WITH 0.263" DIAMETER.
2. ALLOWABLE LOADS ARE BASED ON AVERAGE ULTIMATE TEST LOAD DIVIDED BY 4.
3. CENTER TO CENTER DISTANCE OF 3-3/4" IS NECESSARY FOR 100% CAPACITY AND 1-7/8" FOR 50% CAPACITY.
4. REFERENCE SHEET 2 FOR ADDITIONAL ANCHOR DIMENSIONS.

5/1 5/16" TAPCON
1'-0" = 1'-0" SIDE VIEW

3/16" CARBON STEEL TAPCONS

	EMBEDMENT	EDGE DISTANCE	TENSION (LB)	SHEAR (LB)
HOLLOW BLOCK	1-1/4"	1-1/8"	94	112
		2-5/8"	99	197
CONCRETE (3192 PSI MIN)	1"	1-1/8"	128	147
		2-5/8"	128	157
	1-3/4"	1-1/8"	354	160
		2-5/8"	354	229

1/4" TAPCONS

	EMBEDMENT	EDGE DISTANCE	CARBON STEEL		STAINLESS STEEL	
			TENSION (LB)	SHEAR (LB)	TENSION (LB)	SHEAR (LB)
HOLLOW BLOCK	1-1/4"	1"	117	94	148	107
		2-1/2"	195	264	160	279
CONCRETE (3192 PSI MIN)	1"	1"	209	115	166	148
		2-1/2"	212	297	166	275
	1-3/4"	1"	510	115	466	189
		2-1/2"	575	384	547	472

5/16" CARBON STEEL TAPCON XL

	EMBEDMENT	EDGE DISTANCE	TENSION (LB)	SHEAR (LB)
HOLLOW BLOCK	1-3/4" †	4"	261 LB	570 LB
CONCRETE (2899 PSI MIN)	1-1/4"	1-9/16"	262	333
		2-3/16"	301	431
		3-1/8"	301	543
	1-3/4"	1-9/16"	505	382
		2-3/16"	563	626
		3-1/8"	583	627
	2-1/4"	1-9/16"	713	489
		2-3/16"	780	812
		3-1/8"	788	852
GROUT FILLED BLOCK	1-3/4"	4"	487	706
	2-1/4"		942	785
THRU 2x WOOD BUCK (G=0.36 MIN) TO 3KSI MIN CONCRETE	1-3/4" ††	1-3/4"	---	312

† EMBEDMENT IS THROUGH 1-1/4" FACE SHELL OF HOLLOW BLOCK

†† EMBEDMENT DEPTH IS INTO 3KSI CONCRETE, WITH THE WOOD BUCK LOCATED BETWEEN CONCRETE AND SIDE MEMBER

PRODUCT RENEWED
as complying with the Florida Building Code
Acceptance No 07-1126.10
Expiration Date 02/20/2013
By
Miami Dade Product Control Division

FRANK L. BENNARDO, P.E.
PE0046549
03/10/2008

ENGINEERING EXPRESS®
160 SW 12th AVENUE, #106
DEERFIELD BEACH, FL 33442
Ph: (954) 354-0660 Fax: (954) 354-0443
WWW.ENGEXP.COM
CERT OF AUTH #9885
A FRANK L. BENNARDO, P.E., INC. INNOVATION

ITW Buildex
BUILDEX DIVISION OF ILLINOIS TOOL WORKS, INC.
1349 WEST BRYN MAWR AVENUE
ITASCA, IL 60143

TAPCON MASONRY FASTENERS
MIAMI-DADE NOTICE OF ACCEPTANCE

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	KL	CL	03/06/08

08-ITW-0004
SCALE: - 01
PAGE DESCRIPTION:
-
-

1 2

F:\01 Project Files\ITW Buildex (ITW)\2008\08-ITW-0004 Tapcon (NOA)\08-ITW-0004_01c Tapcon (NOA).dwg
03/10/2008 - 12:34pm keithl

TAPCON LENGTHS

Part Length	Thread Length	
	3/16" Tapcon	1/4" Tapcon
1-1/4"	Full Thread	Full Thread
1-3/4"	1-5/8"	1-5/8"
2-1/4"	1-5/8"	1-5/8"
2-3/4"	1-5/8"	1-5/8"
3-1/4"	1-5/8"	1-5/8"
3-3/4"	1-5/8"	1-5/8"
4"	1-5/8"	1-5/8"
5"		1-5/8"
6"		1-5/8"

TAPCON HEAD DIMENSIONS

Head Style	Head Height	Head Diameter
3/16" PFH	0.120"	0.357"
#12 PFH	0.148"	0.414"
1/4" PFH	0.148"	0.471"
5/16" PFH	0.180"	0.540"
5/16" Flat Head	0.180"	0.540"
5/16" Button Head	0.200"	0.537"

LONG THREAD TAPCON LENGTHS

Part Length	Thread Length		
	3/16" Tapcon	1/4" Tapcon	5/16" Tapcon
1-3/4"	Full Thread	Full Thread	Full Thread
2-1/4"	2-1/8"	2-1/8"	2-1/8"
2-3/4"	2-1/8"	2-1/8"	2-1/8"
3-1/4"	2-1/8"	2-1/8"	2-1/8"
3-3/4"	2-1/8"	2-1/8"	2-1/8"
4"	2-1/8"	2-1/8"	2-1/8"
5"		2-1/8"	2-1/8"
6"		2-1/8"	2-1/8"

TAPCON WASHER HEAD DIMENSIONS

Head Style	Head Height	Across Flat	Washer Diameter
3/16" HWH	0.140"	0.246"	0.355"
1/4" HWH	0.180"	0.308"	0.415"
5/16" HWH	0.221"	0.371"	0.493"
1/4" Maxiset	0.225"	0.308"	0.630"
1/4" Scots	0.280"	0.308"	0.587"
5/16" Maxiset	0.255"	0.370"	0.590"

PRODUCT RENEWED
as complying with the Florida Building Code
Acceptance No 07-1126.10
Expiration Date 02/20/2013
By _____
Miami-Dade Product Control Division

FRANK L. BENNARDO, P.E.
PE0046549
03/10/2008

ENGINEERING EXPRESS®
160 SW 12th AVENUE, #106
DEERFIELD BEACH, FL 33442
PH: (954) 354-0660 FAX: (954) 354-0443
WWW.ENGEXP.COM
CERT OF AUTH #9885
A FRANK L. BENNARDO, P.E., INC. INNOVATION

ITW Buildex
BUILDEX DIVISION OF ITW ILLINOIS TOOL WORKS, INC.
1349 WEST BRYN MAWR AVENUE
ITASCA, IL 60143

TAPCON MASONRY FASTENERS
MIAMI-DADE NOTICE OF ACCEPTANCE

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	KL	CL	03/06/08

08-ITW-0004
SCALE: - 01
PAGE DESCRIPTION:
-
-

2

2

03/10/2008 - 5:00pm keithl F:\01 Project Files\ITW Buildex (ITW)\2008\08-ITW-0004 Tapcon (NOA)\08-ITW-0004_01c Tapcon (NOA).dwg