



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

NOTICE OF ACCEPTANCE (NOA)

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

Tecnicas Expansivas S.L.
Segador 13
Logrono, 26005 Spain

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 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: Blu-Con Concrete Screw

APPROVAL DOCUMENT: Drawing No. **MDBCH00000**, titled "Blue-Con Concrete Screw", sheets 1 through 4 of 4, prepared by Tecnicas Expansivas S.L., with revision 1 dated on 09/28/2023, signed and sealed by Jason R. Steen, P.E., bearing the Miami-Dade County Product Control approval 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 shall bear a permanent label with the manufacturer's name or logo, Ningbo City, Zhejiang Province, China 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 consists of this page 1, evidence page E-1, as well as the approval document mentioned above.

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



02/13/24

NOA No: 23-0815.01
Expiration Date: February 22, 2029
Approval Date: February 22, 2024

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **MDBCH00000**, titled “Blue-Con Concrete Screw”, sheets 1 through 4 of 4, prepared by Tecnicas Expansivas S.L., with revision 1 dated on 09/28/2023, signed and sealed by Jason R. Steen, P.E.

B. TESTS

1. Test report on Tension and Shear Strength Design Values of 3/16” and 1/4” diameters Blue-Con concrete screws per ACI 355.2/CC-ES AC193, and ASTM E 488, prepared by Element Materials Technology., Test Report No. **ESP036783P.1R1**, dated 05/05/2022, revised on 06/07/2022, signed and sealed by Jason R. Steen, P.E.
2. Test report on Corrosion Resistance of 3/16” and 1/4” Blue-Con concrete screws per ASTM G 85, Annex 5 and TAS 114, Appendix E, prepared by Hurricane Engineering & Testing, Inc., Test Report No. **HETI-22-S837**, dated 08/22/2022, signed and sealed by Ram N. Tewari, P.E.

C. CALCULATIONS

1. Assessment Report No. **ESP036783P.2R1**, issued by Element Materials Technology, dated 05/17/2022, revised on 05/26/2022, signed and sealed by Jason R. Steen, P.E.

D. MATERIAL CERTIFICATIONS

1. None.

E. QUALITY ASSURANCE

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

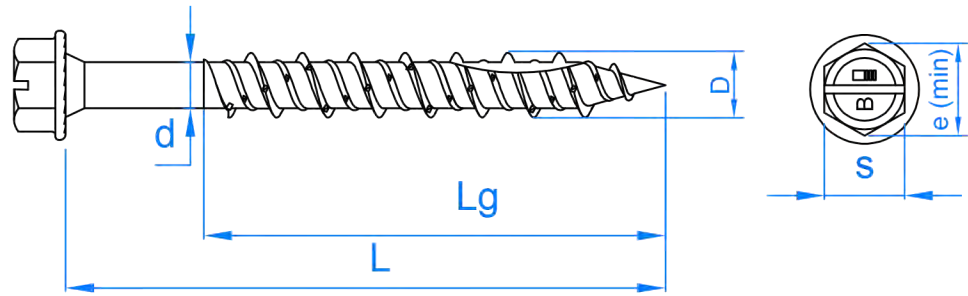
F. STATEMENTS

1. Statement letter of code conformance to the 8th edition (2023) of the FBC and of no financial interest, issued by Element Materials Technology, dated 12/14/2023, signed and sealed by Jason R. Steen, P.E.
2. Distribution agreement between Tecnicas Expansivas S.L. and Aerosmith Fastening Systems, dated 01/08/2024, signed by Valentin Gomez, General Manager of Tecnicas Expansivas S.L and Spencer Jessee, President of Aerosmith Fastening Systems.

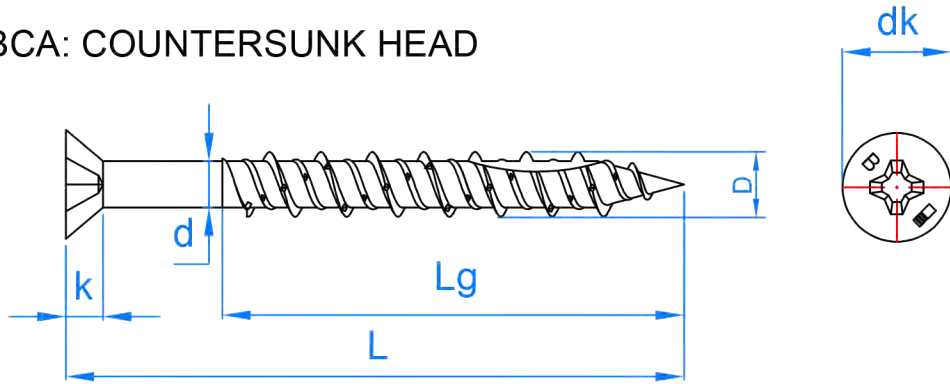


Carlos M. Utrera, P.E.
Product Control Examiner
NOA No: 23-0815.01
Expiration Date: February 22, 2029
Approval Date: February 22, 2024

BCH: HEX HEAD



BCA: COUNTERSUNK HEAD



GENERAL NOTES

- THIS PRODUCT HAS BEEN DESIGNED & TESTED ACCORDANCE WITH THE STRUCTURAL PROVISIONS OF THE FLORIDA BUILDING CODE EIGHT EDITION (2023), FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE, AND THE FOLLOWING STANDARDS: ASTM E488, ASTM G85, AND TAS 144.
- ANCHOR INSTALLATION SHALL BE MADE IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS AND THIS NOTICE OF ACCEPTANCE.
- CONCRETE SHALL CONFORM TO ACI 301: NORMAL WEIGHT CONCRETE HAVING A SPECIFIED COMPRESSIVE STRENGTH OF 2500 psi TO 8500 psi.
- ANCHORS REPRESENTED HEREIN SHALL HAVE AN ATLANTIC EPOXY CORROSION RESISTANT COATING IN COMPLIANCE WITH THE FLORIDA BUILDING CODE.
- ANCHORS SHALL BE INSTALLED IN UNCRACKED CONCRETE SUBSTRATES, AS DEFINED IN ACI 355.2.
- ANCHOR SPACING AND EDGE DISTANCES BELOW THE MINIMUM ONES SHOWN IN INSTALLATION 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.
- ANCHOR VALUES LISTED HEREIN ARE DETERMINED THROUGH TESTING REPORT DATA AND CHECKED FOR CONSISTENCY WITH EACH TEST PERFORMED.
- REFERENCE THE FOLLOWING TEST REPORTS:
ELEMENT MATERIALS TECHNOLOGY: REPORT ESP036783P.1R1
HURRICANE ENGINEERING 8 TESTING INC:
REPORTS NO: HETI-22-S837 AND HETI-SS-S838

HEX HEAD	CTSK HEAD	SIZE	D	L	d(ref)	L _g	s	e(min)	dk	k	RECESS	Head Mark
BCH316214	BCA316214	3/16" x 2-1/4"	0,20	2-1/4"	0,145	2,00	1/4"	0,27	0,37	0,16	PH2	B
BCH316212	BCA316212	3/16" x 2-1/2"		C								
BCH316234	BCA316234	3/16" x 2-3/4"		C								
BCH316300	BCA316300	3/16" x 3"		D								
BCH316314	BCA316314	3/16" x 3-1/4"		D								
BCH316312	BCA316312	3/16" x 3-1/2"		E								
BCH316334	BCA316334	3/16" x 3-3/4"		E								
BCH316400	BCA316400	3/16" x 4"		F								
BCH316414	BCA316414	3/16" x 4-1/4"		F								
BCH316412	BCA316412	3/16" x 4-1/2"		G								
BCH316434	BCA316434	3/16" x 4-3/4"		G								
BCH316500	BCA316500	3/16" x 5"		H								
BCH316514	BCA316514	3/16" x 5-1/4"		H								
BCH316512	BCA316512	3/16" x 5-1/2"		I								
BCH316534	BCA316534	3/16" x 5-3/4"		I								
BCH316600	BCA316600	3/16" x 6"		J								
BCH014214	BCA014214	1/4" x 2-1/4"	0,25	2-1/4"	0,189	2,10	5/16"	0,31	0,50	0,20	PH3	B
BCH014212	BCA014212	1/4" x 2-1/2"		C								
BCH014234	BCA014234	1/4" x 2-3/4"		C								
BCH014300	BCA014300	1/4" x 3"		D								
BCH014314	BCA014314	1/4" x 3-1/4"		D								
BCH014312	BCA014312	1/4" x 3-1/2"		E								
BCH014334	BCA014334	1/4" x 3-3/4"		E								
BCH014400	BCA014400	1/4" x 4"		F								
BCH014414	BCA014414	1/4" x 4-1/4"		F								
BCH014412	BCA014412	1/4" x 4-1/2"		G								
BCH014434	BCA014434	1/4" x 4-3/4"		G								
BCH014500	BCA014500	1/4" x 5"		H								
BCH014514	BCA014514	1/4" x 5-1/4"		H								
BCH014512	BCA014512	1/4" x 5-1/2"		I								
BCH014534	BCA014534	1/4" x 5-3/4"		I								
BCH014600	BCA014600	1/4" x 6"		J								



JASON R. STEEN
Florida PE License 67814

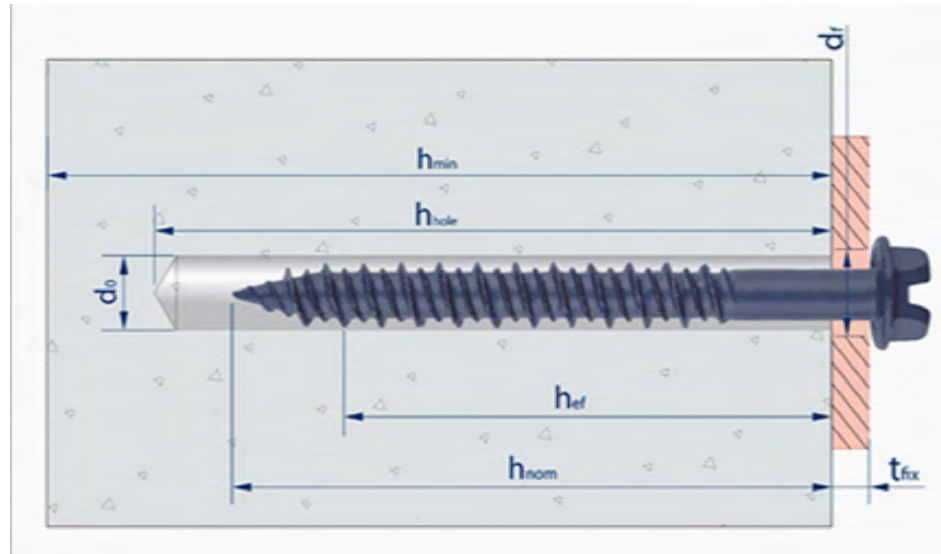
PRODUCT APPROVED
as complying with the Florida
Building Code
NOA-No. 23-0815.01
Approval Date 02/22/2024
By *[Signature]*
Miami-Dade Product Control

1	2023.09.28	D.VARAS	S. REIG	COMPANY NAME MODIFIED	Manufacturer: Técnicas Expansivas S.L. Segador 13 Logroño (La Rioja) 26005 Spain	DATE 2023.09.28
0	2023.06.08	A. GRAU	S. REIG	INITIAL EDITION		REVISION: 1
Rev.	Date	Drawn	Approv.	Description		DRAWING NO. MDBCH00000

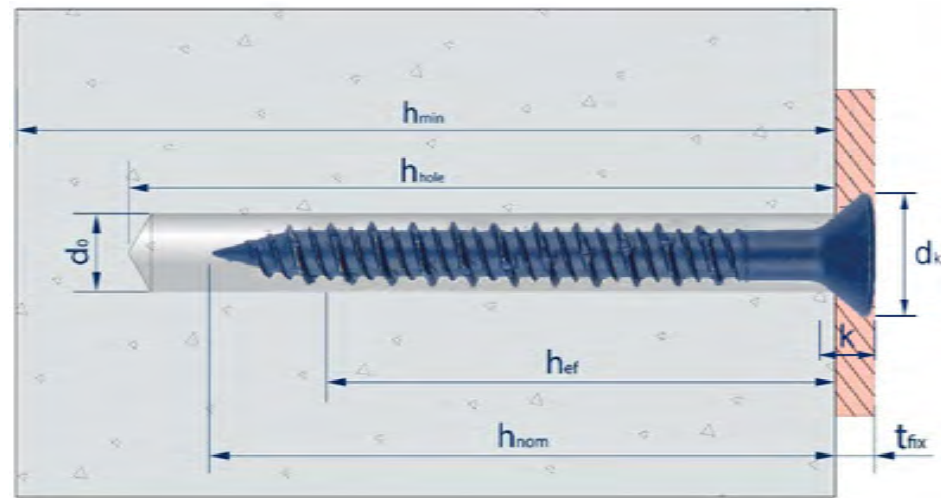
BLU-CON CONCRETE SCREW

INSTALLED CONDITION

BCH: HEX HEAD



BCA: COUNTERSUNK HEAD



ANCHOR INSTALLATION INFORMATION

Anchor Property / Setting Information	Symbol	Units	Nominal Anchor Size	
			3/16"	1/4"
Nominal outside anchor diameter	d_a	in. (mm)	3/16 (4.8)	1/4 (6.4)
Nominal drill bit diameter	d_{bit}	in.	5/32	3/16
Nominal embedment depth	h_{nom}	in. (mm)	2.00 (51)	2.10 (51)
Effective embedment	h_{ef}	in. (mm)	1.45 (37)	1.45 (37)
Minimum member thickness	h_{min}	in. (mm)	3 - 1/2 (89)	3 - 1/2 (89)
Minimum edge distance	c_{min}	in. (mm)	2 (51)	2 (51)
Minimum spacing distance	s_{min}	in. (mm)	2-1/2 (64)	2-1/2 (64)
Minimum hole depth	h_o	in. (mm)	$h_{nom} + 1/4$ ($h_{nom} + 6.4$)	$h_{nom} + 1/4$ ($h_{nom} + 6.4$)
Minimum overall anchor length	l_{anch}	in. (mm)	2 - 1/4 (54)	2 - 1/4 (57)
Maximum installation torque	T_{screw} or $T_{inst,max}$	ft.-lbf.	Not applicable ¹	
Hex head wrench / socket size	d_h	in. (mm)	1/4 (6.4)	5/16 (7.9)
Hex head height	-	in. (mm)	0,14 (3.6)	0,18 (4.6)
Flat head bit tip size	-	No.	PH2 / T25	PH3 / T30
Effective tensile stress area	A_{se}	in. ² (mm ²)	0.0131 (8.5)	0.0233 (15)
Minimum specified ultimate strength	f_{uta}	psi (N/mm ²)	125,000 (862)	125,000 (862)
Minimum specified yield strength	f_{ya}	psi (N/mm ²)	100,000 (689)	100,000 (689)
Mean axial stiffness, uncracked concrete	β_{uncr}	10 ³ lbf/in. (N/mm)	91,231 (15,977)	83,502 (14,448)

¹ - Installation must be performed with Blu-con installation setting tool.



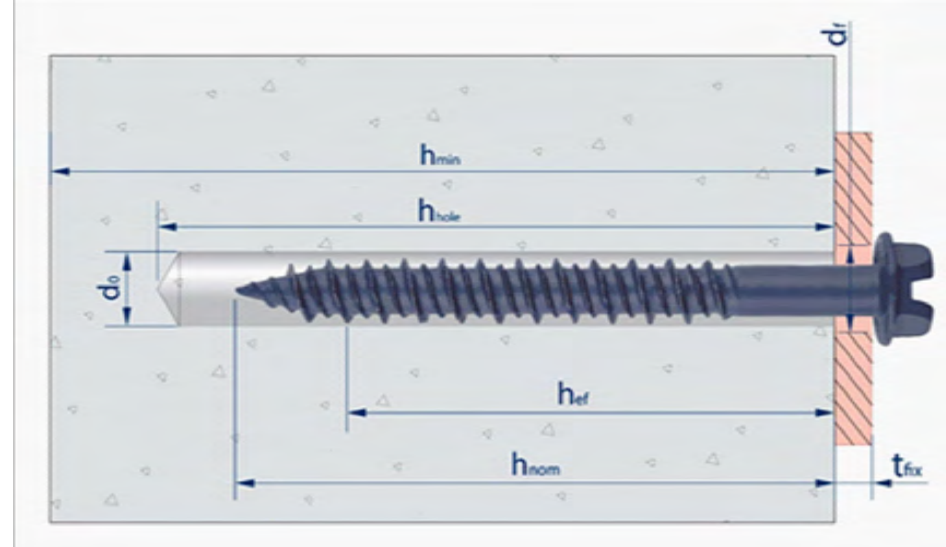
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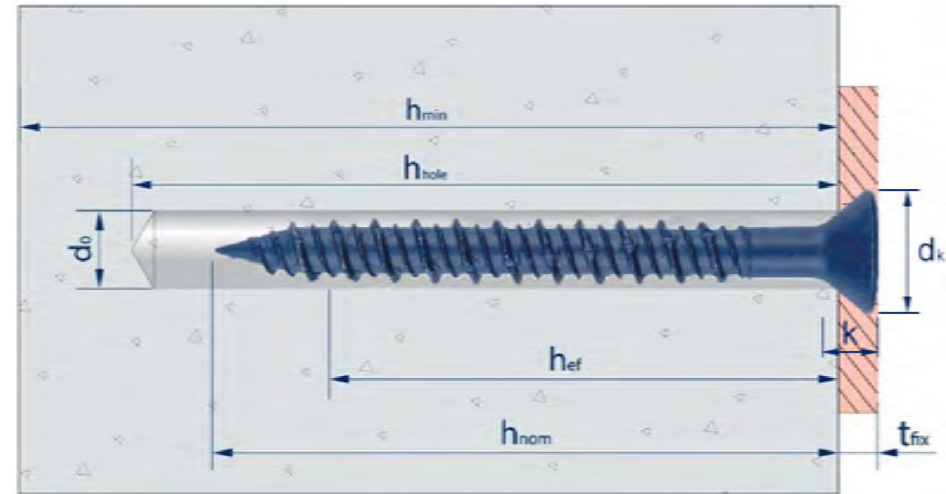
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BLU-CON CONCRETE SCREW					DRAWING NO. MDBCH00000	PAGE: 2 of 4

INSTALLED CONDITION

BCH: HEX HEAD



BCA: COUNTERSUNK HEAD



TENSION DESIGN INFORMATION

Design Characteristic	Notation	Units	Nominal Anchor Size	
			3/16"	1/4"
Anchor category	1, 2 or 3	-	2	1
Nominal embedment depth	h_{nom}	in.	2.00	2.10
		(mm)	(51)	(53)
STEEL STRENGTH IN TENSION (ACI 318-19 17.6.1, ACI 318-14 17.4.1 or ACI 318-11 D.5.1)				
Steel strength in tension	N_{sa}	lbf	1,638	2,913
		(kN)	(7.28)	(12.96)
Reduction factor for steel strength	ϕ	-	0.65	
CONCRETE BREAKOUT IN TENSION (ACI 318-19 17.6.2, ACI 318-14 17.4.2 or ACI 318-11 D.5.2)				
Effective embedment	h_{ef}	in.	1.45	1.45
		(mm)	(37)	(37)
Effectiveness factor for uncracked concrete	k_{uncr}	-	24	24
Modification factor for concrete	$\psi_{c,N}$	-	1.0	1.0
Critical edge distance	c_{ac}	in.	3	3
		(mm)	(76)	(76)
Reduction factor for concrete breakout strength	ϕ	-	0.55	0.65
PULLOUT STRENGTH IN TENSION (ACI 318-19 17.6.3, ACI 318-14 17.4.3 or ACI 318-11 D.5.3)				
Characteristic pullout strength, uncracked concrete (2,500 psi)	$N_{p,uncr}$	lbf	1,695	2,153
		(kN)	(7.54)	(9.58)
Reduction factor for pullout strength	ϕ	-	0.55	0.65
Normalization exponent	n	-	0.07	0.29



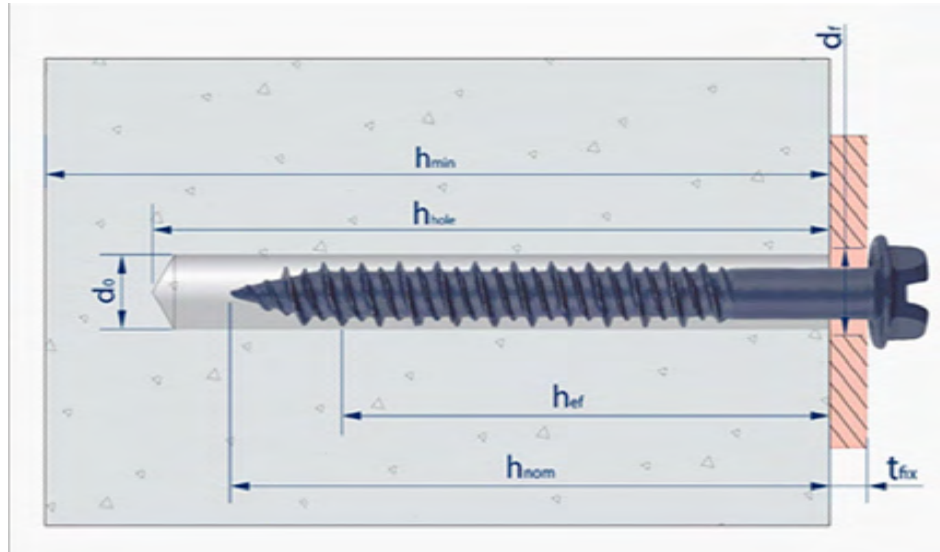
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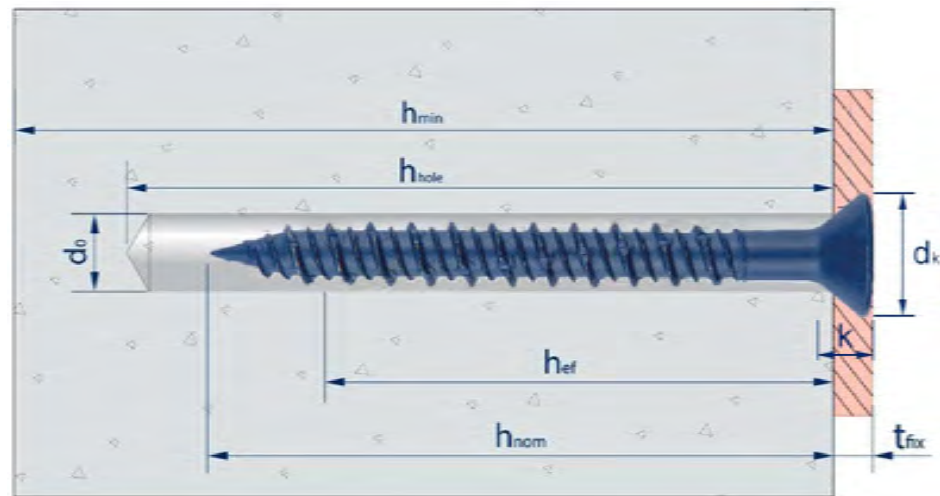
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BLU-CON CONCRETE SCREW					DRAWING NO. MDBCH00000	PAGE: 3 of 4

INSTALLED CONDITION

BCH: HEX HEAD



BCA: COUNTERSUNK HEAD



SHEAR DESIGN INFORMATION

Design Characteristic	Notation	Units	Nominal Anchor Size	
			3/16"	1/4"
Anchor category	1, 2 or 3	-	2	1
Nominal embedment depth	h_{nom}	in.	2.00	2.10
		(mm)	(51)	(53)
STEEL STRENGTH IN SHEAR (ACI 318-19 17.7.1, ACI 318-14 17.5.1 or ACI 318-11 D.6.1)				
Steel strength in shear	V_{sa}	lbf	844	1,653
		(kN)	(3.8)	(7.4)
Reduction factor for steel strength	ϕ	-	0.60	
CONCRETE BREAKOUT IN SHEAR (ACI 318-19 17.7.2, ACI 318-14 17.5.2 or ACI 318-11 D.6.2)				
Load bearing length of anchor	ℓ_e	in.	1.45	1.45
(h_{ef} or $8d_o$, whichever is less)		(mm)	(37)	(37)
Nominal outside anchor diameter	d_a	in.	3/16	1/4
		(mm)	(4.8)	(6.4)
Reduction factor for concrete breakout strength	ϕ	-	0.70	
PRYOUT STRENGTH IN SHEAR (ACI 318-19 17.7.3, ACI 318-14 17.5.3 or ACI 318-11 D.6.3)				
Coefficient for pryout strength	k_{cp}	-	1.0	1.0
Effective embedment	h_{ef}	in.	1.45	1.45
		(mm)	(37)	(37)
Reduction factor for pryout strength	ϕ	-	0.70	



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