



BRIGHTON-BEST INTERNATIONAL

www.brightonBEST.com

1 - 8 0 0 - 2 7 5 - 0 0 5 0



U.S. ANCHOR

The Professional Contractors' Choice

Division of **BRIGHTON-BEST INTERNATIONAL**

US Anchor products are manufactured to the highest standards for construction and industrial applications. The carbon steel is made from 1035 steel as well as 304 and 316 stainless steel for corrosive conditions.

Key applications for use are general construction, electrical/HVAC, and mechanical assemblies as well as highway/bridge construction and plant maintenance. Additional applications include rack and conveyor system anchoring.

Light duty fasteners are used for interior applications such as drywall, brick and block. They include plastic and nylon products, toggle bolts, machine screw and other expansion anchors.

ANCHOR PRODUCT LINES

WEDGE ANCHOR - ULTRAWEDGE™

- Carbon Steel (BBI#157)
- Hot Dipped Galvanized (BBI#158)
- Acoustical (BBI#157)
- Stainless Steel 304 (BBI#616)
- Stainless Steel 316 (BBI#617)

WEDGE ANCHOR

- Carbon Steel (Bulk) (BBI#279)

SLEEVE ANCHORS

- Acorn Nut Carbon Steel (BBI#276)
- Hex Nut Carbon Steel (BBI#278)
- Flat Head Carbon Steel (BBI#277)
- Round Head Carbon (BBI#426)
- Hex Nut 303 Stainless (BBI#618)

SLEEVE ANCHOR ROD HANGER TYPE CARBON STEEL (BBI#R17)

DROP-IN ANCHORS

- Carbon Steel-US Anchor (BBI#268)
- Carbon Steel-Shorty Version (BBI#268)
- Carbon Steel-Commercial (Bulk) (BBI#269)
- Carbon Steel-Commercial Shorty Version (BBI#269)
- 303 Stainless-US Anchor (BBI#618)

MACHINE SCREW ANCHORS

- Setting Tools (BBI#R06)

TAP-KING CONCRETE SCREWS-US ANCHOR-HEX & FLAT HEAD (BULK) RUSTPERT COATING (BBI#660)

CONCRETE SCREWS

- Commercial Hex & Flat Head (BBI#685)

DRILL BITS (SDS, STRAIGHT) FOR CONCRETE SCREWS (BBI#R62)

TOGGLE BOLTS

- Zinc (BBI#893)
- Acoustical Zinc (BBI#143)

TOGGLE WINGS (BBI#262)

HAMMER DRIVE ANCHORS

- Mushroom Head with Zinc Nails (BBI#266)
- Mushroom Head with 304 Nails (BBI#265)

HOLLOW WALL ANCHORS

- Combo (Phil/Slot) Pan (BBI#267)
- Drive Anchor Combo (Phil/Slot) Pan (BBI#272)
- Setting Tool (BBI#R05)

LAG SCREW EXPANSION SHIELDS

- Short Zinc Alloy (BBI#273)
- Long Zinc Alloy (BBI#274)

SINGLE EXPANSION SHIELDS (BBI#264)

DOUBLE EXPANSION SHIELDS (BBI#263)

SPLIT FAST ANCHOR (Flat & Round Head) (BBI#159)

CONICAL PLASTIC ANCHORS (BBI#078)

CONICAL PLASTIC ANCHOR KIT (BBI#079)

NYLON NAIL ANCHORS (BBI#R14)

EYECOUPINGS (BBI#R37)

MUNGO

- Nylon Plug (BBI#156/R12)
- Universal Plug (BBI#R13)
- Jet Plug Kits (BBI#R11)

FRAMING ANCHORS (BBI#R08)

HAMMER SCREWS (BBI#R10)

L SHAPED ANCHOR BOLT WITH NUT & WASHER HDG (BBI#432)

WOOD SCREW ANCHOR LEAD ALLOY (BBI#280)



BRIGHTON-BEST INTERNATIONAL

www.brightonBEST.com

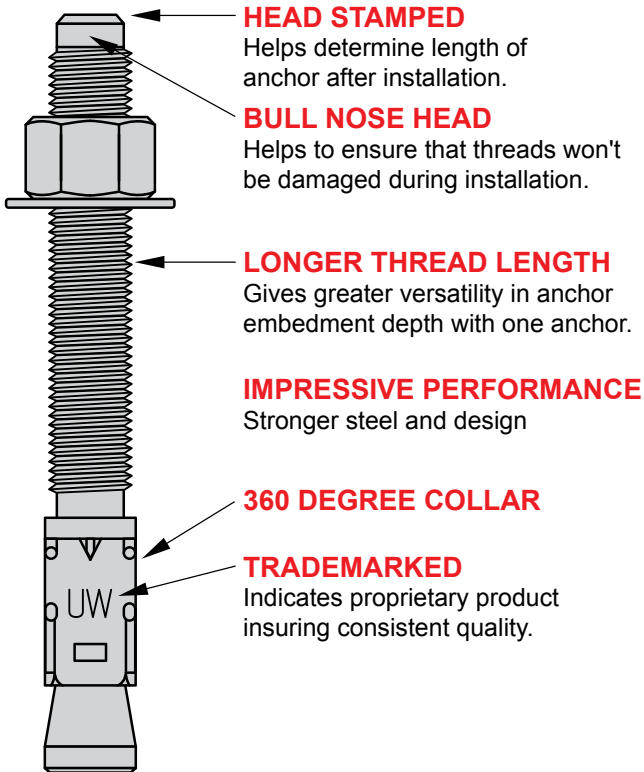
1 - 8 0 0 - 2 7 5 - 0 0 5 0



The Ultrawedge Anchor is used for heavy duty fastening applications with impressive performance characteristics. The anchor and the hole diameter are the same. The advanced design of the collar reduces anchor spinning. Proper installation requires cleaning out the hole.

The Ultrawedge is used in a wide variety of structural applications, including fastening sheet metal, steel, aluminum angles or wood to concrete. Pipe-hanging, tilt-ups, bridges, elevator equipment, conveyors and highway construction that frequently require the wedge type anchor. The Ultrawedge Anchor is ideal for installing machinery, hand rails, dock bumpers & storage racks, etc. Ultrawedge anchors are sold unassembled with the appropriate nuts and washers.

ULTRAWEDGE™ WEDGE ANCHORS



HEAD STAMPED

Helps determine length of anchor after installation.

BULL NOSE HEAD

Helps to ensure that threads won't be damaged during installation.

LONGER THREAD LENGTH

Gives greater versatility in anchor embedment depth with one anchor.

IMPRESSIVE PERFORMANCE

Stronger steel and design

360 DEGREE COLLAR

TRADEMARKED

Indicates proprietary product insuring consistent quality.

MIAMI-DADE COUNTY
PENDING



ICC-ESR 3716

Carbon / Stainless / Hot Dipped Galvanize

Carbon Steel / Zinc

PART#	SIZE
157010	1/4"-20x1 3/4"
157020	1/4"-20x2 1/4"
157030	1/4"-20x3 1/4"
157060	3/8"-16x2 1/4"
157070	3/8"-16x2 3/4"
157080	3/8"-16x3"
157090	3/8"-16x3 3/4"
157100	3/8"-16x5"
157110	3/8"-16x6 1/2"
157180	1/2"-13x2 3/4"
157190	1/2"-13x3 3/4"
157200	1/2"-13x4 1/4"
157210	1/2"-13x4 1/2"
157220	1/2"-13x5 1/2"
157230	1/2"-13x7"
157240	1/2"-13x8 1/2"
157250	1/2"-13x10"
157260	1/2"-13x12"
157300	5/8"-11x3 1/2"
157310	5/8"-11x4 1/2"
157320	5/8"-11x5"
157330	5/8"-11x6"
157340	5/8"-11x7"
157350	5/8"-11x8 1/2"
157360	5/8"-11x10"
157370	5/8"-11x12"
157380	3/4"-10x4 1/4"
157390	3/4"-10x4 3/4"
157400	3/4"-10x5 1/2"
157410	3/4"-10x6 1/4"
157420	3/4"-10x7"
157430	3/4"-10x8 1/2"
157440	3/4"-10x10"
157450	3/4"-10x12"
157500	7/8"-9x6"
157510	7/8"-9x8"
157520	7/8"-9x10"
157600	1"-8x6"
157610	1"-8x9"
157620	1"-8x12"
157630	1"-8x15"
157700	1 1/4"-7x9"
157710	1 1/4"-7x12"
157800	1/4"-20x2 1/4"
	ACOUSTICAL

304 Stainless Steel

PART#	SIZE
616010	1/4"-20x1 3/4"
616020	1/4"-20x2 1/4"
616030	1/4"-20x3 1/4"
616040	3/8"-16x2 1/4"
616050	3/8"-16x2 3/4"
616060	3/8"-16x3"
616070	3/8"-16x3 3/4"
616080	3/8"-16x5"
616090	3/8"-16x6 1/2"
616100	1/2"-13x2 3/4"
616110	1/2"-13x3 3/4"
616120	1/2"-13x4 1/4"
616130	1/2"-13x4 1/2"
616140	1/2"-13x7"
616150	1/2"-13x8 1/2"
616160	1/2"-13x10"
616170	1/2"-13x12"
616180	5/8"-11x3 1/2"
616190	5/8"-11x4 1/2"
616200	5/8"-11x5"
616210	5/8"-11x6"
616220	5/8"-11x7"
616230	5/8"-11x8 1/2"
616240	5/8"-11x10"
616250	5/8"-11x12"
616260	3/4"-10x4 1/4"
616270	3/4"-10x4 3/4"
616280	3/4"-10x5 1/2"
616290	3/4"-10x7"
616300	3/4"-10x8 1/2"
616310	3/4"-10x10"
616320	3/4"-10x12"
616330	3/4"-10x6 1/4"
616340	7/8"-9x6"
616350	7/8"-9x8"
616360	1"-8x6"
616370	1"-8x9"
616380	1"-8x12"

316 Stainless Steel

PART#	SIZE
617010	1/4"-20x1 3/4"
617020	1/4"-20x2 1/4"
617030	1/4"-20x3 1/4"
617040	3/8"-16x2 3/4"
617050	3/8"-16x3"
617060	3/8"-16x3 3/4"
617070	3/8"-16x5"
617080	1/2"-13x2 3/4"
617090	1/2"-13x3 3/4"
617100	1/2"-13x4 1/4"
617110	1/2"-13x5 1/2"
617120	1/2"-13x7"
617130	5/8"-11x3 1/2"
617140	5/8"-11x4 1/2"
617150	5/8"-11x5"
617160	5/8"-11x6"
617170	5/8"-11x7"
617180	5/8"-11x8 1/2"
617190	3/4"-10x4 1/4"
617200	3/4"-10x4 3/4"
617210	3/4"-10x5 1/2"
617220	3/4"-10x6 1/4"
617230	3/4"-10x7"
617240	3/4"-10x8 1/2"

Hot Dipped Galvanized

PART#	SIZE
158010	3/8"-16x3 1/2"
158100	1/2"-13x2 3/4"
158110	1/2"-13x3 3/4"
158120	1/2"-13x4 1/4"
158130	1/2"-13x5 1/2"
158140	1/2"-13x7"
158150	1/2"-13x8 1/2"
158160	1/2"-13x10"
158200	5/8"-11x3 1/2"
158210	5/8"-11x5"
158220	5/8"-11x6"
158230	5/8"-11x7"
158240	5/8"-11x8 1/2"
158250	5/8"-11x10"
158300	3/4"-10x4 3/4"
158310	3/4"-10x5 1/2"
158320	3/4"-10x6 1/4"
158330	3/4"-10x8 1/2"
158340	3/4"-10x10"
158400	7/8"-9x6"
158410	7/8"-9x8"
158500	1"-8x6"
158510	1"-8x9"



U.S. ANCHOR

The Professional Contractors' Choice
Division of **BRIGHTON-BEST INTERNATIONAL**



SLEEVE ANCHOR - ACORN HEAD

BBI #	PFC #	PACK	VD	SIZE
276015	02320-2414-401	100 PCS	P1	1/4-20 X 7/8
276020	02320-2419-401	100 PCS	P1	1/4-20 X 1 3/8
276030	02320-2425-401	100 PCS	P1	1/4-20 X 2 1/4



SLEEVE ANCHOR - HEX NUT

BBI #	PFC #	PACK	VD	SIZE
278030	02321-2520-401	100 PCS	P1	5/16 X 1 1/2
278040	02321-2526-401	100 PCS	P1	5/16 X 2 1/2
278050	02321-2623-401	50 PCS	P1	3/8 X 1 7/8
278060	02321-2630-401	50 PCS	P1	3/8 X 3
278060	02321-2630-421	50 PCS	P1	3/8 X 3
278070	02321-2640-401	50 PCS	P1	3/8 X 4
278080	02321-2825-401	25 PCS	P1	1/2 X 2 1/4
278090	02321-2830-401	25 PCS	P1	1/2 X 3
278100	02321-2840-401	25 PCS	P1	1/2 X 4
278110	02321-2860-401	25 PCS	P1	1/2 X 6
278120	02321-3025-401	25 PCS	P1	5/8 X 2 1/4
278130	02321-3030-401	25 PCS	P1	5/8 X 3
278135	02321-3038-401	10 PCS	P1	5/8 X 3 7/8
278140	02321-3041-401	10 PCS	P1	5/8 X 4 1/4
278150	02321-3060-401	10 PCS	P1	5/8 X 6
278160	02321-3226-401	10 PCS	P1	3/4 X 2 1/2
278180	02321-3241-401	5 PCS	P1	3/4 X 4 1/4
278190	02321-3261-401	5 PCS	P1	3/4 X 6 1/4



SLEEVE ANCHOR - FLAT HEAD

BBI #	PFC #	PACK	VD	SIZE
177005	02322-2419-401	100 PCS	P1	1/4 X 1 3/8
177020	02322-2424-401	100 PCS	P1	1/4 X 2
177040	02322-2430-401	100 PCS	P1	1/4 X 3
177060	02322-2440-401	100 PCS	P1	1/4 X 4
177070	02322-2627-401	50 PCS	P1	3/8 X 2 3/4
177110	02322-2630-401	50 PCS	P1	3/8 X 3
177080	02322-2640-401	50 PCS	P1	3/8 X 4
177090	02322-2650-401	50 PCS	P1	3/8 X 5
177100	02322-2660-401	50 PCS	P1	3/8 X 6
277220	02322-2424-481	100 PCS	PK	1/4 X 2 Threshold



SLEEVE ANCHOR - ROUND HEAD COMBO

BBI #	PFC #	PACK	VD	SIZE
426005	02323-2418-401	100 PCS	P1	1/4 X 1 1/4

SLEEVE ANCHOR - ROUND HEAD

BBI #	PFC #	PACK	VD	SIZE
426010	02323-2424-401	100 PCS	P1	1/4 X 2
426022	02323-2427-401	100 PCS	P1	1/4 X 2 3/4
426020	02323-2626-401	50 PCS	P1	3/8 X 2 1/2
426030	02323-2633-401	50 PCS	P1	3/8 X 3 3/4
426040	02323-2643-401	50 PCS	P1	3/8 X 4 3/4



SLEEVE TYPE ROD HANGERS

BBI #	PFC #	PACK	VD	SIZE
R17003	02324-2520-401	50 PCS	P1	5/16 X 1 1/2
R17002	02324-2623-401	50 PCS	P1	3/8 X 1 7/8
R17001	02324-2825-401	25 PCS	P1	1/2 X 2 1/4
R17004	02324-3025-401	20 PCS	P1	5/8 X 2 1/4



U.S. ANCHOR

The Professional Contractors' Choice
Division of **BRIGHTON-BEST INTERNATIONAL**



DROP IN ANCHOR - CARBON STEEL

BBI #	SIZE
268010	1/4"
268020	3/8"
268030	1/2"
268040	5/8"
268050	3/4"

DROP IN ANCHOR - 304 STAINLESS

BBI #	SIZE
619010	1/4"
619020	3/8"
619030	1/2"
619040	5/8"
619050	3/4"



SETTING TOOLS

BBI #	SIZE
269010	1/4"
269020	3/8"
269030	1/2"
269040	5/8"
269050	3/4"



SHORTY DROP IN

BBI #	SIZE
268220	3/8"

SHORTY DROP IN SETTING TOOL

BBI #	SIZE
269220	3/8"



TAPKING CONCRETE SCREWS - HEX HEAD

BBI #	SIZE
660010	316 x 114
660015	316 X 134
660020	316 X 214
660025	316 X 234
660030	316 X 314
660035	316 X 4
660050	14 X 114
660055	14 X 134
660060	14 X 214
660070	14 X 234
660080	14 X 314
660090	14 X 4
660100	14 X 5



TAPKING CONCRETE SCREWS - FLAT HEAD

BBI #	SIZE
660200	316 X 114
660210	316 X 134
660220	316 X 214
660230	316 X 234
660240	316 X 314
660250	316 X 4
660260	14 X 1
660270	14 X 114
660280	14 X 134
660290	14 X 214
660300	14 X 234
660310	14 X 4
660320	14 X 5

TAPKING CARBIDE BITS

BBI #	SIZE
R62001	316 X 512
R62002	316 X 634
R62003	316 X 412
R62004	532 X 312
R62005	532 X 412
R62006	532 X 5' 12
R62008	532 X 312

ICC-ES Report

ESR-3716

ICC-ES | (800) 423-6587 | (562) 699-0543 | www.icc-es.org

Reissued 04/2015

This report is subject to renewal 04/2016.

DIVISION: 03 00 00—CONCRETE
SECTION: 03 16 00—CONCRETE ANCHORS
DIVISION: 05 00 00—METALS
SECTION: 05 05 19—POST-INSTALLED CONCRETE ANCHORS

REPORT HOLDER:

BRIGHTON BEST INTERNATIONAL, INC.

**12801 LEFFINGWELL AVENUE
SANTA FE SPRINGS, CALIFORNIA 90670**

EVALUATION SUBJECT:

US ANCHOR ULTRAWEDGE ANCHORS FOR UNCRACKED CONCRETE



Look for the trusted marks of Conformity!

"2014 Recipient of Prestigious Western States Seismic Policy Council (WSSPC) Award in Excellence"



ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.



ICC-ES Evaluation Report

ESR-3716*

Issued April 2015

This report is subject to renewal April 2016.

www.icc-es.org | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

DIVISION: 03 00 00—CONCRETE
Section: 03 16 00—Concrete Anchors
DIVISION: 05 00 00—METALS
Section: 05 05 19 Post-Installed Concrete Anchors
REPORT HOLDER:
BRIGHTON BEST INTERNATIONAL, INC.
12801 LEFFINGWELL AVENUE
SANTE FE SPRINGS, CALIFORNIA 90670
(310) 835-0415
www.brightonbest.com
EVALUATION SUBJECT:
**US ANCHOR ULTRAWEDGE ANCHORS FOR
UNCRACKED CONCRETE**
1.0 EVALUATION SCOPE
Compliance with the following codes:

- 2015, 2012, 2009 and 2006 *International Building Code*® (IBC)
- 2015, 2012, 2009 and 2006 *International Residential Code*® (IRC)

Property evaluated:

Structural

2.0 USES

US Anchor Ultrawedge Anchors are used to resist static, wind, and earthquake (Seismic Design Categories A and B only) tension and shear loads in uncracked normal-weight concrete and uncracked sand-lightweight concrete having a specified compressive strength, f'_c , of 2,500 psi to 8,500 psi (17.2 MPa to 58.6 MPa).

The US Anchor Ultrawedge Anchors comply with Section 1901.3 of 2015 IBC and 1909 of the 2012 IBC, and Section 1912 of the 2009 and 2006 IBC. The anchors are alternatives to cast-in-place anchors described in Section 1908 of the 2012 IBC and Section 1911 of the 2009 and 2006 IBC. The anchors may also be used under the IRC where an engineered design is submitted in accordance with Section R301.1.3.

3.0 DESCRIPTION
3.1 US Anchor Ultrawedge Anchors:

The US Anchor Ultrawedge Anchors are torque-controlled expansion anchors. The anchors consist of a stud, nut, washer and expander collar (clip) as illustrated in Figure 1 of this report. The stud for all sizes is manufactured from

cold-drawn carbon steel meeting the requirements of UNS G10350 with a minimum ultimate tensile strength of 550 MPa and is partially threaded with one end terminating in a flared mandrel. The expander collar (clip) is manufactured from cold-rolled carbon steel meeting the requirements of UNS G10050 with a minimum hardness of 45 HRB for the $3/8$ " size and cold-rolled carbon steel meeting the requirements of GB/T 3522 Grade 50 with a minimum hardness of 75 HRB for the larger sizes and is formed around the stud mandrel so it is able to move freely. All components, including nuts and washers, are zinc-coated in accordance with ASTM B633 classification SC1, Type III. Installation information and dimensions are set forth in Section 4.3 and Table 1 and Table 2 of this report.

3.2 Concrete:

Normal-weight and sand-lightweight concrete must comply with Sections 1903 and 1905 of the IBC, as applicable.

4.0 DESIGN AND INSTALLATION
4.1 Strength Design:

4.1.1 General: Design strength of anchors complying with 2015 IBC, as well as Section R301.1.3 of the 2015 IRC must be determined in accordance with ACI 318-14 and this report.

Design strength of anchors complying with the 2012 IBC, as well as Section R301.1.3 of the 2012 IRC, must be determined in accordance with ACI 318-11 Appendix D and this report.

Design strength of anchors complying with the 2009 IBC, as well as Section R301.1.3 of the 2009 IRC, must be determined in accordance with ACI 318-08 Appendix D and this report.

Design strength of anchors complying with the 2006 IBC and Section R301.1.3 of the 2006 IRC must be determined in accordance with ACI 318-05 Appendix D and this report.

The strength design of anchors must comply with ACI 318-14 17.3.1 or ACI 318 (-11, -08, -05) D.4.1, as applicable. Strength reduction factors, ϕ , as given in ACI 318-14 17.3.3 or ACI 318-11 D.4.3 or ACI 318 (-08, -05) D.4.4, as applicable, must be used for load combinations calculated in accordance with Section 1605.2 of the IBC, Section 5.3 of ACI 318-14 and Section 9.2 of ACI 318 (-11, -08, -05), as applicable. Strength reduction factors, ϕ , given in ACI 318-11 D.4.4 or ACI 318 (-08, -05) D.4.5 must be used for load combinations calculated in accordance with ACI 318 (-11, -08, -05), Appendix C. The value of f'_c , used in calculations must be limited to a maximum of 8,000 psi (55.2 MPa), in accordance with ACI 318-14 17.2.7 or ACI 318-11 D.3.7, as applicable.

*Revised June 2015

4.1.2 Requirements for Static Steel Strength in Tension, N_{sa} : The nominal steel strength of a single anchor in tension, N_{sa} , calculated in accordance with ACI 318-14 17.4.1.2 or ACI 318 (-11, -08, -05) D.5.1.2, as applicable, must be calculated based on the information given in Table 1 and must be used for design. The strength reduction factor, ϕ , corresponding to a ductile steel element may be used.

4.1.3 Requirements for Static Concrete Breakout Strength in Tension, N_{cb} or N_{cbg} : The nominal concrete breakout strength of a single anchor or a group of anchors in tension, N_{cb} and N_{cbg} , respectively, must be calculated in accordance with ACI 318-14 17.4.2 or ACI 318 (-11, -08, -05) D.5.2, as applicable, with modifications as described in this section. The basic concrete breakout strength in tension, N_b , must be calculated in accordance with ACI 318-14 17.4.2.2 or ACI 318 (-11, -08, -05) D.5.2.2, as applicable, using the values of h_{ef} and k_{uncr} as given in Table 1 of this report. The nominal concrete breakout strength in tension in regions of concrete where analysis indicates no cracking at service loads must be calculated in accordance with ACI 318-14 17.4.2.6 or ACI 318 (-11, -08, -05) D.5.2.6, as applicable, with $\psi_{c,N} = 1.0$. The value of f'_c used in the calculations must be limited to 8,000 psi (55.2 MPa), in accordance with ACI 318-14 17.2.7 or ACI 318-11 D.3.7, as applicable.

4.1.4 Requirements for Pullout Strength in Tension, N_{pn} : The nominal pullout strength of a single anchor in tension in accordance with ACI 318-14 17.4.3 or ACI 318 (-11, -08, -05) D.5.3, as applicable, in uncracked concrete, $N_{p,uncr}$, is given in Table 1. In lieu of ACI 318-14 17.4.3.6 or ACI 318 (-11, -08, -05) D.5.3.6, as applicable, $\psi_{c,P} = 1.0$ for all design cases. In accordance with ACI 318-14 17.4.3 or ACI 318 (-11, -08, -05) D.5.3, as applicable the nominal pullout strength in uncracked concrete may be calculated in accordance with the following equation:

$$N_{p,f'_c} = N_{p,uncr} \sqrt{\frac{f'_c}{2,500}} \quad (\text{lb, psi}) \quad (\text{Eq-1})$$

$$N_{p,f'_c} = N_{p,uncr} \sqrt{\frac{f'_c}{17.2}} \quad (\text{N, MPa})$$

$N_{p,uncr}$ are not provided in Table 1, the pullout strength in tension need not be evaluated.

4.1.5 Requirements for Static Steel Strength in shear, V_{sa} : The nominal steel strength in shear, V_{sa} , of a single anchor in accordance with ACI 318-14 17.5.1.2 or ACI 318 (-11, -08, -05) D.6.1.2, as applicable, is given in Table 1 of this report. The strength reduction factor, ϕ , corresponding to a ductile steel element may be used.

4.1.6 Requirements for Static Concrete Breakout Strength in Shear, V_{cb} or V_{cbg} : The nominal concrete breakout strength of a single anchor or group of anchors in shear, V_{cb} or V_{cbg} , respectively, must be calculated in accordance with ACI 318-14 17.5.2 or ACI 318 (-11, -08, -05) D.6.2, as applicable with modifications as described in this section. The basic concrete breakout strength in shear, V_b , must be calculated in accordance with ACI 318-14 17.5.2.2 or ACI 318 (-11, -08, -05) D.6.2.2, as applicable, using the value of l_e according to Table 1 of this report.

4.1.7 Requirements for Static Concrete Pryout Strength of Anchor in Shear, V_{cp} or V_{cpb} : The nominal concrete pryout strength of a single anchor or group of anchors, V_{cp} or V_{cpb} , respectively, must be calculated in accordance with ACI 318-14 17.5.3 or ACI 318 (-11, -08, -05) D.6.3, as applicable, based on the value of k_{cp} provided in Table 1 and the value of N_{cb} or N_{cbg} as calculated in Section 4.1.3 of this report.

4.1.8 Requirements for Interaction of Tensile and Shear Forces: For loadings that include combined tensile and shear forces, the design must be determined in accordance with ACI 318-14 17.6 or ACI 318 (-11, -08, -05) D.7, as applicable.

4.1.9 Requirements for Critical Edge Distance: In applications where the installed edge distance $c < c_{ac}$ and supplemental reinforcement to control splitting of the concrete is not present, the concrete breakout strength for the anchors loaded in tension for uncracked concrete, calculated in accordance with ACI 318-14 17.4.2 or ACI 318 (-11, -08, -05) D.5.2, as applicable, must be further multiplied by the factor $\psi_{CP,N}$ as given by the following equation:

$$\psi_{CP,N} = \frac{c}{c_{ac}}$$

where the factor $\psi_{CP,N}$ need not be taken as less than $1.5h_{ef}/c_{ac}$.

For all other cases, $\psi_{CP,N} = 1.0$. Values for the critical edge distance c_{ac} must be taken from Table 1. In all cases, c must not be less than c_{min} described in Table 1 of this report.

4.1.10 Requirements for Minimum Member Thickness, Minimum Anchor Spacing and Minimum Edge Distance: In lieu of using ACI 318-14 17.7.1 and 17.7.3 or ACI 318 (-11, -08, -05) D.8.1 and D.8.3, as applicable, values of s_{min} and c_{min} as given in Table 1 of this report must be used. In lieu of using ACI 318-14 17.7.5 or ACI 318 (-11, -08, -05) D.8.5, as applicable, minimum member thicknesses h_{min} as given in Table 1 of this report must be used.

4.1.11 Sand-lightweight Concrete: For ACI 318-14, ACI 318-11 and ACI 318-08, as applicable, when anchors are used in sand-lightweight concrete, the modification factor λ_a or λ , respectively, for concrete breakout strength must be taken as 0.6 in lieu of ACI 318-14 17.2.6 (2015 IBC), ACI 318-11 D.3.6 (2012 IBC) or ACI 318-08 D.3.4 (2009 IBC), as applicable. In addition, the pullout strength $N_{p,uncr}$ must be multiplied by 0.6.

For ACI 318-05, when anchors are used in structural sand-lightweight concrete, the values N_b , $N_{p,uncr}$ and V_b , and must be multiplied by 0.6, in lieu of ACI 318-05 D.3.4.

4.2 Allowable Stress Design (ASD):

4.2.1 General: Design values for use with allowable stress design load combinations, calculated in accordance with Section 1605.3 of the IBC, must be established in accordance with the following equations:

$$T_{allowable,ASD} = \frac{\phi N_n}{\alpha}$$

$$V_{allowable,ASD} = \frac{\phi V_n}{\alpha}$$

where:

$T_{allowable,ASD}$ = Allowable tension load (lbf or kN)

$V_{allowable,ASD}$ = Allowable shear load (lbf or kN)

ϕN_n = Lowest design strength of an anchor or anchor group in tension as determined in accordance with ACI 318-14 Chapter 17, ACI 318 (-11, -08, -05) Appendix D, Section 4.1 of this report, and 2009 IBC Section 1908.1.9 or 2006 IBC Section 1908.1.16, as applicable. (lbf or kN).

ϕV_n = Lowest design strength of an anchor or anchor group in shear as determined in accordance with ACI 318-14 Chapter 17, ACI 318 (-11, -08, -05) Appendix D, Section 4.1 of this report, and 2009 IBC Section 1908.1.9 or 2006 IBC Section 1908.1.16, as applicable. (lbf or kN).

α = Conversion factor calculated as a weighted average of the load factors for the controlling load combination. In addition, α must include all applicable factors to account for nonductile failure modes and required over-strength.

The requirements for member thickness, edge distance and spacing, described in this report, must apply. An example of allowable stress design values for illustrative purposes is provided in Table 3 of this report.

4.2.2 Interaction of Tensile and Shear Forces: The interaction must be calculated and consistent with ACI 318-14 17.6 or ACI 318 (-11, -08, -05) D.7, as applicable, as follows:

For shear loads $V_{applied} \leq 0.2V_{allowable,ASD}$, the full allowable load in tension must be permitted.

For tension loads $T_{applied} \leq 0.2T_{allowable,ASD}$, the full allowable load in shear must be permitted.

For all other cases the following equation applies:

$$\frac{T_{applied}}{T_{allowable,ASD}} + \frac{V_{applied}}{V_{allowable,ASD}} \leq 1.2$$

4.3 Installation:

Embedment, spacing, edge distance, and concrete requirements must comply with Table 1 and Figure 2.

Anchor locations must comply with this report and the plans and specifications approved by the code official. US Anchor Ultrawedge Anchors must be installed in accordance with the manufacturer's published instructions and this report (see installation instructions at the end of this report). In case of conflict, this report governs.

4.4 Special Inspection:

Periodic special inspection is required in accordance with Section 1705.1.1 and Table 1705.3 of the 2015 IBC and 2012 IBC, Section 1704.15 and Table 1704.4 of the 2009 IBC, or Section 1704.13 of the 2006 IBC, as applicable. The special inspector must make periodic inspections during anchor installation to verify anchor type, anchor dimensions, concrete type, concrete compressive strength, drill bit type, hole dimensions, hole cleaning procedure, concrete member thickness, anchor embedment, anchor spacing, edge distances, tightening torque and adherence to the manufacturer's printed installation instructions. The special inspector must be present as often as required in accordance with the "statement of special inspection."

5.0 CONDITIONS OF USE

The US Anchor Ultrawedge Anchors described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 The anchors are installed in accordance with the manufacturer's published instructions and this report. In case of a conflict, this report governs.
- 5.2 The anchors are installed in uncracked normal-weight concrete and sand-lightweight concrete having a specified compressive strength $f_c = 2,500$ psi to 8,500 psi (17.2 MPa to 58.6 MPa).
- 5.3 Anchor sizes, dimensions, minimum embedment depths, and other installation parameters are as set forth in this report.
- 5.4 The values of f_c used for calculation purposes must not exceed 8,000 psi (55.1 MPa).
- 5.5 Strength design values must be established in accordance with Section 4.1 of this report.

5.6 Allowable stress design values must be established in accordance with Section 4.2.

5.7 Anchor spacing(s) and edge distance(s) as well as minimum member thickness must comply with Table 1.

5.8 Prior to installation, calculations and details demonstrating compliance with this report must be submitted to the code official. The calculations and details must be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.

5.9 Since an ICC-ES acceptance criteria for evaluating data to determine the performance of anchors subjected to fatigue or shock loading is unavailable at this time, the use of these anchors under such conditions is beyond the scope of this report.

5.10 The use of the US Anchor Ultrawedge Anchors is limited to installation in uncracked normal-weight concrete. Anchors may not be installed in regions of a concrete member where cracking has occurred or where analysis indicates cracking may occur at service load levels, subject to the conditions of this report.

5.11 The anchors may be used to resist short-term loading due to wind or seismic forces limited to structures assigned to Seismic Design Categories A and B under the IBC, subject to the conditions of this report.

5.12 Where not otherwise prohibited in the code, US Anchor Ultrawedge Anchors are permitted for use with fire-resistance-rated construction provided that at least one of the following conditions is fulfilled:

- The anchors are used to resist wind forces only.
- Anchors that support a fire-resistance-rated envelope or a fire-resistance-rated membrane are protected by approved fire-resistance-rated materials, or have been evaluated for resistance to fire exposure in accordance with recognized standards.
- Anchors are used to support nonstructural elements.

5.13 Use of the anchors is limited to dry, interior locations.

5.14 Special inspection must be provided as set forth in Section 4.4 of this report.

5.15 US Anchor Ultrawedge Anchors are produced in Yuyao, China, under a quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Mechanical Anchors in Concrete Elements (AC193), dated June 2012 (editorially revised April 2015); and quality control documentation.

7.0 IDENTIFICATION

Anchors are packaged in containers labeled with the company logo, product name, anchor size and length, catalog number and the evaluation report number (ESR-3716).

TABLE 1—DATA FOR US ANCHOR ULTRAWEDGE ANCHORS FOR USE IN UNCRACKED CONCRETE ^{1,2}

CHARACTERISTIC	SYMBOL	UNITS	Nominal Anchor Diameter			
			³ / ₈ inch	¹ / ₂ inch	⁵ / ₈ inch	³ / ₄ inch
Installation Information						
Anchor diameter	$d_a (d_o)^3$	in.	³ / ₈	¹ / ₂	⁵ / ₈	³ / ₄
Minimum diameter of hole clearance in fixture	d_h	in.	⁷ / ₁₆	⁹ / ₁₆	¹¹ / ₁₆	¹³ / ₁₆
Nominal drill bit diameter	d_{bit}	in.	³ / ₈	¹ / ₂	⁵ / ₈	³ / ₄
Minimum nominal embedment depth	h_{nom}	in.	$2^{\frac{3}{8}}$	$2^{\frac{1}{2}}$	$3^{\frac{9}{16}}$	$4^{\frac{1}{8}}$
Minimum effective embedment depth	h_{ef}	in.	2	2	3	$3^{\frac{1}{2}}$
Minimum hole depth	h_o	in.	2	3	4	$4^{\frac{1}{2}}$
Installation torque	T_{inst}	ft-lb	30	40	60	110
Minimum edge distance	c_{min}	in.	3	7	7	7
Minimum spacing	s_{min}	in.	4	7	7	7
Minimum concrete thickness	h_{min}	in.	4	6	6	8
Critical edge distance	c_{ac}	in.	7	9	9	12
Anchor Design Data						
Category number	1, 2 or 3	–	1	1	1	1
Yield strength of anchor steel	f_{ya}	lb/in ²	105,000	92,200	91,200	93,400
Ultimate strength of anchor steel	f_{uta}	lb/in ²	119,200	103,700	102,650	105,000
Tension						
Effective tensile stress area (neck)	$A_{se,N}$	in ²	0.056	0.110	0.173	0.262
Steel strength in tension	N_{sa}	lb.	6675	11,400	17,760	27,510
Reduction factor for steel failure modes ⁵	ϕ	–	0.75			
Effectiveness factor for concrete breakout	k_{uncr}	–	24	24	24	24
Reduction factor for concrete breakout ⁶	ϕ	–	0.65 (Condition B)			
Pull-out resistance ⁴	$N_{p,uncr}$	lb.	3125	3225	N/A ⁸	N/A ⁸
Reduction factor for pull-out ⁶	ϕ	–	0.65 (Condition B)			
Axial stiffness in service load range	β	lb/in	113,890	363,730	443,850	649,470
Shear						
Effective shear stress area (threads)	$A_{se,V}$	in ²	0.078	0.142	0.226	0.334
Load-bearing length of anchor	ℓ_e	in.	2	2	3	$3^{\frac{1}{2}}$
Reduction factor for concrete breakout or pryout ⁶	ϕ	–	0.70 (Condition B)			
Coefficient for pryout strength	k_{cp}	–	1.0		2.0	
Steel strength in shear ⁷	V_{sa}	lb.	3052	4954	9296	14,573
Reduction factor for steel failure ⁵	ϕ	–	0.65			

For **SI**: 1 in = 25.4 mm, 1 in² = 6.451×10⁻⁴ m, 1 ft-lb = 1.356 Nm, 1 lb/in² = 6.895 Pa.

¹ The information presented in this table must be used in conjunction with the design criteria of ACI 318-14 Chapter 17 or ACI 318 Appendix D, as applicable.

² Installation must comply with the manufacturer’s published installation instructions

³ The notation in parentheses is for the 2006 IBC.

⁴ See Section 4.1.4 of this report.

⁵ Anchors are considered to be manufactured using ductile steel in accordance with ACI 318-14 2.3 or ACI 318-11 D.1. Strength reduction factors are for use with the load combinations of ACI 318-14 Section 5.3, ACI 318-11 Section 9.2 or IBC Section 1605.2, as applicable.

⁶ Condition B applies where supplementary reinforcement in conformance with ACI 318-14 17.3.3 or ACI 318-11 D.4.3 is not provided, or where pull-out or pry-out strength governs. For cases where supplementary reinforcement can be verified, the strength reduction factors associated with Condition A may be used. Strength reduction factors are for use with the load combinations of ACI 318-14 Section 5.3, ACI 318-11 Section 9.2 or IBC Section 1605.2.

⁷ Tabulated values must be used for design since these values are lower than those calculated with ACI 318-14 Eq. (17.5.1.2b) or ACI 318-11 Eq. (D-29), as applicable.

⁸ N/A denotes that pullout resistance is not applicable and does not need to be considered

TABLE 2—US ANCHOR ULTRAWEDGE ANCHOR LENGTH CODE IDENTIFICATION SYSTEM

Length ID marking on threaded stud head		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
Overall anchor length, l_{anch} , (inches)	From	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2	6	6 1/2	7	7 1/2	8	8 1/2	9	9 1/2	10	11
	Up to but not including	2	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2	6	6 1/2	7	7 1/2	8	8 1/2	9	9 1/2	10	11	12

For SI: 1 inch = 25.4 mm.

INSTALLATION INSTRUCTIONS

1. Use a rotary hammer drill in the percussion mode with the correct size carbide drill bit meeting the requirements of ANSI Standard B212-15 to drill the hole perpendicular to the concrete surface and to the required depth.
2. Use a hand pump, compressed air or vacuum to remove debris and dust from the drilling operation.
3. If installation is through a fixture, position the fixture over the hole and install the anchor through the hole in the fixture. Using a hammer drive the anchor into the hole insuring that it is installed to the minimum required embedment depth, h_{nom} .
4. Install the washer and nut on the projecting thread and tighten the nut to the required installation torque value, T_{inst} , using a torque wrench.

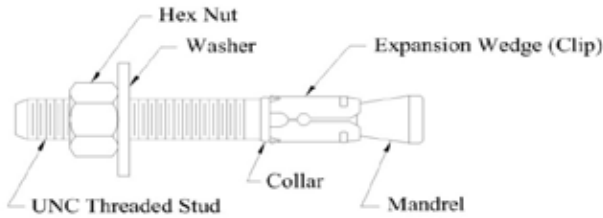


FIGURE 1—US ANCHOR ULTRAWEDGE ANCHOR COMPONENTS

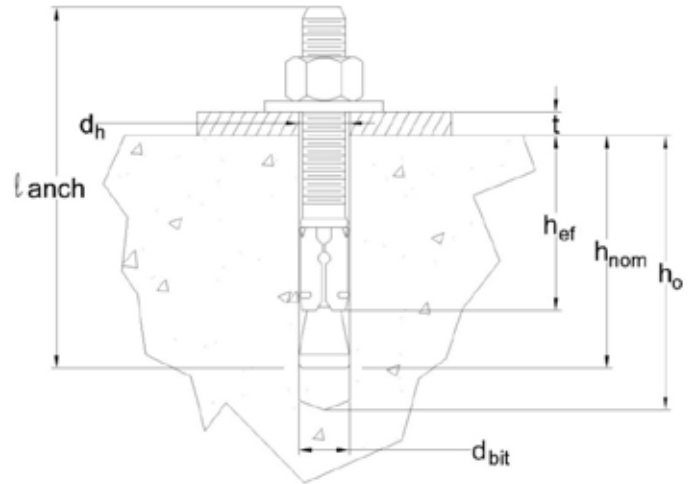


FIGURE 2—US ANCHOR ULTRAWEDGE ANCHOR INSTALLATION

TABLE 3—EXAMPLE OF ALLOWABLE STRESS DESIGN VALUES FOR ILLUSTRATIVE PURPOSES ^{1, 2, 3, 4, 5, 6, 7, 8}

Nominal Anchor Diameter, d_a (d_o) (in.)	Nominal Embedment Depth, h_{nom} (in.)	Effective Embedment Depth, h_{ef} (in.)	Allowable Tension Load, (lbs.)
3/8	2 3/8	2	1372
1/2	2 1/2	2	1416
5/8	3 9/16	3	2739
3/4	4 1/8	3 1/2	3451

¹ Single anchor with static tension only
² Concrete determined to remain uncracked for the life of the anchorage
³ Load combinations from ACI 318-14 Section 5.3 or ACI 318-11 Section. 9.2, as applicable and strength reduction factors from ACI 318-11 Condition B (supplementary reinforcement not provided)
⁴ Controlling load combination 30% dead and 70% live loads, 1.2D+1.6L
⁵ Calculation of weighted average $\alpha = 1.2(0.3) + 1.6(0.7) = 1.48$
⁶ Normal weight concrete with $f'_c = 2,500$ psi
⁷ $C_{a1} = C_{a2} \geq C_{ac}$
⁸ $h \geq h_{min}$

ICC-ES Evaluation Report

ESR-3716 Supplement

Issued May 2015

This report is subject to renewal April 2016.

www.icc-es.org | (800) 423-6587 | (562) 699-0543 A Subsidiary of the International Code Council®

DIVISION: 03 00 00—CONCRETE
Section: 03 16 00—Concrete Anchors

DIVISION: 05 00 00—METALS
Section: 05 05 19—Post-Installed Concrete Anchors

REPORT HOLDER:

BRIGHTON BEST INTERNATIONAL, INC.
12801 LEFFINGWELL AVENUE
SANTE FE SPRINGS, CALIFORNIA 90670
(310) 835-0415
www.brightonbest.com

EVALUATION SUBJECT:

US ANCHOR ULTRAWEDGE ANCHORS FOR UNCRACKED CONCRETE

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the Brighton Best International, Inc. US Anchor Ultrawedge Anchors for uncracked concrete only, recognized in ICC-ES master evaluation report ESR-3716, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2014 *Florida Building Code—Building*
- 2010 *Florida Building Code—Building*
- 2014 *Florida Building Code—Residential*
- 2010 *Florida Building Code—Residential*

2.0 CONCLUSIONS

The Brighton Best International, Inc. US Anchor Ultrawedge Anchors in uncracked concrete, described in master evaluation report ESR-3716, comply with the 2014 and 2010 *Florida Building Code—Building* and the 2014 and 2010 *Florida Building Code—Residential*, when designed and installed in accordance with the *International Building Code*® provisions noted in the master report, and under the following conditions:

- Design wind loads must be based on Section 1609 of the 2014 or 2010 *Florida Building Code—Building* or Section 301.2.1.1 of the 2014 or 2010 *Florida Building Code—Residential*, as applicable.
- Load combinations must be in accordance with Section 1605.2 or Section 1605.3 of the 2014 or 2010 *Florida Building Code—Building*, as applicable.
- The modifications to ACI 318 as shown in 2009 IBC Sections 1908.1.9 and 1908.1.10, as noted in 2009 IBC Section 1912.1, do not apply to the 2010 *Florida Building Code*.

Use of the Brighton Best International, Inc. US Anchor Ultrawedge Anchors in uncracked concrete only, for compliance with the High-Velocity Hurricane Zone Provisions of the 2010 *Florida Building Code—Building* and 2010 *Florida Building Code—Residential*, has not been evaluated and is outside the scope of this supplement.

For products falling under Florida Rule 9N-3, verification that the report holder's quality-assurance program is audited by a quality-assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official, when the report holder does not possess an approval by the Commission).

This supplement expires concurrently with the master report, issued April 2015 and revised June 2015.



BRIGHTON-BEST INTERNATIONAL

www.brightonBEST.com

1 - 8 0 0 - 2 7 5 - 0 0 5 0

Global Headquarters

Tainan, Taiwan
No.122, Yi-Lin Road,
Rende Township,
Tainan, 71752 Taiwan
Tel. 886-6-270-1756

USA Headquarters

Long Beach, California
5855 Obispo Ave.
Long Beach, CA 90805
Tel. 562-808-8000
Fax: 562-808-8137

U.S.A.

Atlanta, GA

250 Horizon Dr.
Suwanee, GA 30024
Tel. 678-459-3700
Fax: 678-459-3720
WATS: 800-275-0056
atlanta@brightonbest.com

Boston, MA

928 West Chestnut St.
Brockton MA 02301
Tel. 508-857-2808
Fax: 774-296-8685
WATS: 800-275-0037
boston@brightonbest.com

Charlotte, NC

2801-J Hutchison McDonald Rd. Ste. H
Charlotte, NC 28269
Tel. 704-597-5977
Fax: 704-597-1599
WATS: 800-275-0050
charlotte@brightonbest.com

Chicago, IL

940 North Enterprise St.
Aurora, IL 60504
Tel. 630-898-9600
Fax: 630-898-9601
WATS: 800-929-2378
chicago@brightonbest.com

Cleveland, OH

16065 Imperial Pkwy.
Strongsville, OH 44149
Tel. 440-238-1350
Fax: 440-238-2336
WATS: 800-275-0048
cleveland@brightonbest.com

Dallas, TX

3225 Roy Orr Blvd., Ste. 200
Grand Prairie, TX 75050
Tel. 972-790-1201
Fax: 972-790-6265
WATS: 800-275-0054
dallas@brightonbest.com

Denver, CO

9700 E. 56th Ave., Unit 120
Denver, CO 80238
Tel. 303-576-0530
Fax: 303-576-0533
WATS: 800-935-2202
denver@brightonbest.com

Detroit, MI

51251 Fogg Industrial Ct.
Shelby Township, MI 48315
Tel. 586-412-3350
Fax: 586-412-3305
WATS: 800-275-0046
detroit@brightonbest.com

Houston, TX

6911 Fairbanks N. Houston Rd. Ste. 150
Houston, TX 77040
Tel: 713-466-0336
Fax: 713-466-0385
WATS: 800-275-0054
houston@brightonbest.com

Logan Township, NJ

2100 Center Square Rd. Ste. 100
Logan Township, NJ 08085
Tel. 856-241-9494
Fax: 856-241-9477
WATS: 800-935-2378
logan@brightonbest.com

Los Angeles, CA

12801 Leffingwell Ave.
Santa Fe Springs, CA 90670
Tel. 562-483-2740
Fax: 562-404-3999
WATS: 800-275-0028
losangeles@brightonbest.com

Maple Grove, MN

9060 Zachary Lane North
Ste. 111-116
Maple Grove, MN 55369
Tel. 763-425-9464
Fax: 763-425-9266
WATS: 800-275-0031
minnesota@brightonbest.com

Miami, FL

3426 West 84th St., Ste. 203
Hialeah, FL 33018
Tel. 305-512-3446
Fax: 305-512-3450
WATS: 800-275-0035
miami@brightonbest.com

Nashville, TN

737 Melrose Ave.
Nashville, TN 37211
Tel. 615-252-8801
Fax: 615-252-4974
WATS: 800-275-0029
nashville@brightonbest.com

Portland, OR

13440 NE Jarrett St.
Portland, OR 97230
Tel: 503-261-0660
Fax: 503-252-4093
WATS: 800-275-0686
portland@brightonbest.com

Salt Lake City, UT

2179 S. Commerce Center Dr. Ste. 400
West Valley City, UT 84120
Tel: 801-972-1313
Fax: 801-972-5114
WATS: 800-935-1402
saltlake@brightonbest.com

San Francisco, CA

30964 San Benito Ct.
Hayward, CA 94544
Fax: 562-921-7191
WATS: 800-275-0028
sanfrancisco@brightonbest.com

Sayreville, NJ

200 Kennedy Dr.
Sayreville, NJ. 08872
Tel. 732-525-8400
Fax: 732-525-8408
sayreville@brightonbest.com

Seattle, WA

20308 59th Place South, Bldg. 1A
Kent, WA, 98032
Tel. 425-656-9703
Tel: 253-872-3415
WATS: 800-935-1502
seattle@brightonbest.com

St. Louis, MO

1856 Craig Rd.
St. Louis, MO 63146
Tel. 314-205-8001
Fax: 314-205-0857
WATS: 800-275-0047
stlouis@brightonbest.com

Tampa, FL

4915 Distribution Dr.
Tampa, FL 33605
Tel. 305-512-3446
Fax: 305-512-3450
WATS: 800-275-0035
tampa@brightonbest.com

CANADA

Montreal, Québec

5780 Kieran
Saint-Laurent, Québec H4S 2B5
Tel: 514-336-9888
Fax: 514-336-9865
WATS: 800-361-2076
montreal@brightonbest.com

Toronto, Ontario

7900 Goreway Dr., Unit 1
Brampton, Ontario L6T 5W6
Tel: 905-791-2000
Fax: 905-791-6841
WATS: 800-268-6918
toronto@brightonbest.com

Vancouver, British Columbia

9489 200 St, Unit 103&104
Langley, B.C. V1M 3A7
Tel: 604-513-0311
Fax: 604-513-0312
WATS: 800-663-9106
vancouver@brightonbest.com

AUSTRALIA

Brisbane, Queensland

11 Stradbroke St.
Heathwood, Queensland 4110
Tel. 617-3727-5700
Fax: 617-3714-9821
qldsales@brightonbest.com.au

Melbourne, Victoria

31-33 Canterbury Rd.
Braeside, VIC 3195
Tel. 613-8586-0244
Fax: 613-9587-7255
vicsales@brightonbest.com.au

Perth, Western Australia

Unit 3/420 Victoria Rd.
Malaga, Western Australia 6090
Tel. 618-6240-6800
Fax: 618-9248-4766
wasales@brightonbest.com.au

Sydney, New South Wales

6 Shale Place
Eastern Creek, NSW 2766
Tel. 612-8818-0900
Fax: 612-9620-1050
nswsales@brightonbest.com.au

NEW ZEALAND

Auckland, New Zealand

28B Pavilion Dr. Airport Oaks
Mangere, Auckland 2022
Tel. 649-257-5256
Fax: 649-257-5328
nzsales@brightonbest.co.nz

U.K.

Birmingham, West Midlands

Fastener Complex D1
Cradley Business Park,
Overend Rd., Cradley Heath
West Midlands B64 7DW
Tel. +44 (0) 1384-568144
Fax: +44 (0) 1384-413719
sales@brightonbest.org

BRAZIL

São Paulo, Brazil

Rua Dos Missionários, 410
São Paulo, Brazil 04729-001
Tel. 55 11-5641-4037
Fax: 55 11-5641-2444
luizab@brightonbest.com.br

MEXICO

Mexico

Toll Free: 1(855)-816-9726
Fax: 562-404-3999
mexico@brightonbest.com