

# Trubolt<sup>®</sup> + Seismic Wedge Anchors



**2015 IBC  
Compliant**

## DESCRIPTION/SUGGESTED SPECIFICATIONS

### Seismic Wedge Type Anchors—

Trubolt+ Wedge anchors consist of a high-strength threaded stud body, expansion clip, nut and washer. Anchor bodies are made of plated carbon steel. The expansion clip consists of a split cylindrical ring with undercutting grooves.

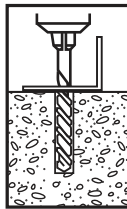
The exposed end of the anchor is stamped to identify anchor length. Stampings should be preserved during installation for any subsequent embedment verification.

Use carbide tipped hammer drill bits made in accordance with ANSI B212.15-1994 to install anchors.

Anchors are tested to ACI 355.2 and ICC-ES AC193. Anchors are listed by the following agencies as required by the local building code: ICC-ES, and City of Los Angeles.

See Appendix C (pages 108-109) for performance values in accordance with 2015 IBC.

## INSTALLATION STEPS



1. Select a carbide drill bit with a diameter equal to the anchor diameter. Drill hole to any depth exceeding the desired embedment. See chart for minimum recommended embedment.



2. Clean hole or continue drilling additional depth to accommodate drill fines



3. Assemble washer and nut, leaving top of stud exposed through nut. Drive anchor through material to be fastened until washer is flush to surface of material.



4. Expand anchor by tightening nut 3-5 turns past the hand tight position, or to the specified torque requirement.

## APPROVALS/LISTINGS

ICC Evaluation Service, Inc. # ESR-2427

-Category 1 performance rating

-2015 IBC Compliant

-Meets ACI 318 ductility requirements

-Tested in accordance with ACI 355.2 and ICC-ES AC193

-Listed for use in seismic zones A, B, C, D, E, & F

-3/8", 1/2", 5/8" and 3/4" diameter anchors listed in ESR-2427

City of Los Angeles - #RR25867

Florida Building Code

## SELECTION CHART

**Trubolt<sup>®</sup> +**  
Seismic Wedge Anchors  
**Carbon Steel with Zinc Plating**

Meets ASTM B633 SC1, Type III specifications for electroplating of 5um = .0002" thickness. This coating is well suited for non-corrosive environments.

PART NUMBER	THREAD LENGTH In. (mm)	ANCHOR DIA. & DRILL BIT SIZE (THREADS) PER INCH	OVERALL LENGTH In. (mm)	MAX. THICKNESS OF MATERIAL TO BE FASTENED In. (mm)	QTY/WT PER BOX lbs.	QTY/WT PER MASTER CARTON lbs.
CWS-3830	1-5/8 (41.3)	3/8" - 16	3 (76.2)	5/8 (15.9)	50/ 5.3	400/ 42
CWS-3836	2-3/8 (60.3)	3/8" - 16	3-3/4 (95.3)	1-3/8 (34.9)	50/ 5.9	300/ 35
CWS-3850	3-5/8 (92.1)	3/8" - 16	5 (127.0)	2-5/8 (66.7)	50/ 7.3	250/ 37
CWS-1236	2-1/8 (54.0)	1/2" - 13	3-3/4 (95.3)	3/4 (19.1)	25/ 5.7	150/ 34
CWS-1244	2-7/8 (73.0)	1/2" - 13	4-1/2 (114.3)	1-1/2 (38.1)	25/ 7.0	150/ 40
CWS-1254	3-7/8 (98.4)	1/2" - 13	5-1/2 (139.7)	2-1/2 (63.5)	25/ 8.0	150/ 49
CWS-1270	5-3/8 (136.5)	1/2" - 13	7 (177.8)	4 (101.6)	25/ 9.2	150/ 55
CWS-5850	3-3/16 (81.0)	5/8" - 11	5 (127.0)	1-1/8 (28.6)	10/ 4.7	100/ 48
CWS-5860	4-3/16 (106.4)	5/8" - 11	6 (152.4)	2-1/8 (54.0)	10/ 5.4	50/ 28
CWS-5870	5-3/16 (131.8)	5/8" - 11	7 (177.8)	3-1/8 (79.4)	10/ 6.2	30/ 19
CWS-5884	5-3/4 (146.0)	5/8" - 11	8-1/2 (215.9)	4-5/8 (117.5)	10/ 8.0	30/ 25
CWS-3454	3-5/8 (92.1)	3/4" - 10	5-1/2 (139.7)	1-1/2 (38.1)	50/ 7.6	30/ 38
CWS-3462	4-3/8 (111.1)	3/4" - 10	6-1/4 (158.8)	2-1/4 (57.2)	10/ 8.5	30/ 26
CWS-3470	5-1/8 (130.2)	3/4" - 10	7 (177.8)	3 (76.2)	10/ 9.0	30/ 27
CWS-3484	5-3/4 (146.0)	3/4" - 10	8-1/2 (215.9)	4-1/2 (114.3)	10/10.5	30/ 32
CWS-34100	5-3/4 (146.0)	3/4" - 10	10 (254.0)	6 (152.4)	10/11.9	30/ 36

## LENGTH INDICATION CODE\*

CODE	LENGTH OF ANCHOR	CODE	LENGTH OF ANCHOR
A	1-1/2 < 2 (38.1 < 50.8)	K	6-1/2 < 7 (165.1 < 177.8)
B	2 < 2-1/2 (50.8 < 63.5)	L	7 < 7-1/2 (177.8 < 190.5)
C	2-1/2 < 3 (63.5 < 76.2)	M	7-1/2 < 8 (190.5 < 203.2)
D	3 < 3-1/2 (76.2 < 88.9)	N	8 < 8-1/2 (203.2 < 215.9)
E	3-1/2 < 4 (88.9 < 101.6)	O	8-1/2 < 9 (215.9 < 228.6)
F	4 < 4-1/2 (101.6 < 114.3)	P	9 < 9-1/2 (228.6 < 241.3)
G	4-1/2 < 5 (114.3 < 127.0)	Q	9-1/2 < 10 (241.3 < 254.0)
H	5 < 5-1/2 (127.0 < 139.7)	R	10 < 11 (254.0 < 279.4)
I	5-1/2 < 6 (139.7 < 152.4)	S	11 < 12 (279.4 < 304.8)
J	6 < 6-1/2 (152.4 < 165.1)	T	12 < 13 (304.8 < 330.2)

\*Located on top of anchor for easy inspection.

# Trubolt<sup>®</sup>+

## 316 Stainless Steel



**2015 IBC  
Compliant**

### DESCRIPTION/SUGGESTED SPECIFICATIONS

#### Seismic Wedge Type Anchors—

The Trubolt+ Wedge Anchor consists of a high-strength threaded anchor body, expansion clip, hex nut and washer. The anchor body is cold-formed from AISI Type 316 stainless steel materials. The expansion clip is fabricated from Type 316 stainless steel materials. The expansion clip consists of a split cylindrical ring with under cutting grooves at the bottom end.

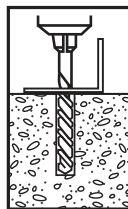
The exposed end of the anchor is stamped to identify anchor length. Stampings should be preserved during installation for any subsequent embedment verification.

Use carbide tipped hammer drill bits made in accordance with ANSI B212.15-1994 to install anchors.

Anchors are tested to ACI 355.2 and ICC-ES AC193. Anchors are listed by the following agencies as required by the local building code: ICC-ES, and City of Los Angeles.

See Appendix C (page 110) for performance values in accordance with 2015 IBC.

### INSTALLATION STEPS



**1.** Select a carbide drill bit with a diameter equal to the anchor diameter. Drill hole to any depth exceeding the desired embedment. See chart for minimum recommended embedment.



**3.** Assemble washer and nut, leaving top of stud exposed through nut. Drive anchor through material to be fastened until washer is flush to surface of material.



**2.** Clean hole or continue drilling additional depth to accommodate drill fines.



**4.** Expand anchor by tightening nut 3-5 turns past the hand tight position, or to the specified torque requirement.

### APPROVALS/LISTINGS

- ICC Evaluation Service, Inc. #ESR-2427
  - Category 1 performance rating
  - 2015 IBC Compliant
  - Meets ACI 318 ductility requirements
  - Tested in accordance with ACI 355.2 and ICC-ES AC193
  - Listed for use in Seismic zones A, B, C, D, E & F
  - 1/2" and 5/8" diameter anchors listed in ESR-2427
- City of Los Angeles - #RR25867

#### LENGTH INDICATION CODE\*

CODE	LENGTH OF ANCHOR	CODE	LENGTH OF ANCHOR
A	1-1/2 < 2 (38.1 < 50.8)	K	6-1/2 < 7 (165.1 < 177.8)
B	2 < 2-1/2 (50.8 < 63.5)	L	7 < 7-1/2 (177.8 < 190.5)
C	2-1/2 < 3 (63.5 < 76.2)	M	7-1/2 < 8 (190.5 < 203.2)
D	3 < 3-1/2 (76.2 < 88.9)	N	8 < 8-1/2 (203.2 < 215.9)
E	3-1/2 < 4 (88.9 < 101.6)	O	8-1/2 < 9 (215.9 < 228.6)
F	4 < 4-1/2 (101.6 < 114.3)	P	9 < 9-1/2 (228.6 < 241.3)
G	4-1/2 < 5 (114.3 < 127.0)	Q	9-1/2 < 10 (241.3 < 254.0)
H	5 < 5-1/2 (127.0 < 139.7)	R	10 < 11 (254.0 < 279.4)
I	5-1/2 < 6 (139.7 < 152.4)	S	11 < 12 (279.4 < 304.8)
J	6 < 6-1/2 (152.4 < 165.1)	T	12 < 13 (304.8 < 330.2)

\*Located on top of anchor for easy inspection.

### SELECTION CHART

**Trubolt<sup>®</sup>+**  
 Seismic Wedge Anchors  
**316 Stainless Steel**

Meets ASTM B633 SC1, Type III specifications for electroplating of Sum = .0002" thickness. This coating is well suited for non-corrosive environments.

PART NUMBER	THREAD LENGTH In (mm)	ANCHOR DIA. & DRILL BIT SIZE (THREADS) PER INCH	OVERALL LENGTH In. (mm)	MAX. THICKNESS OF MATERIAL TO BE FASTENED In. (mm)	QTY/WT PER BOX lbs.	QTY/WT PER MASTER CARTON lbs.
CSWW-1236	2-1/8 (54.0)	1/2"-13	3-3/4 (95.3)	3/4 (19.1)	25/5.8	150/35
CSWW-1244	2-7/8 (73.0)	1/2"-13	4-1/2 (114.3)	1-1/2 (38.1)	25/6.6	150/40
CSWW-1254	3-7/8 (98.4)	1/2"-13	5-1/2 (139.7)	2-1/2 (63.5)	25/7.9	150/48
CSWW-1270	5-3/8 (136.5)	1/2"-13	7 (177.8)	4 (101.6)	25/9.5	150/57
CSWW-5842	2-7/16 (61.9)	5/8"-11	4-1/2 (114.3)	3/8 (9.5)	10/4.2	100/42
CSWW-5850	3-3/16 (81.0)	5/8"-11	5 (127.0)	1-1/8 (28.6)	10/4.8	100/48