



Submittal / Substitution Request

Submitted To:

Name: _____

Firm: _____

Project: _____

Submitted Product: **Wej-it Mechanical Concrete Anchor**

Specified Product: **ATG (Hot Dipped Galvanized), ATS AISI 304 Stainless Steel, ATSS AISI 313 Stainless Steel for ACQ Applications**

Section: _____ Page: _____ Detail/Sheet No.: _____

Description of Application:

Attached information includes product description, installation instructions and technical data needed for evaluation of the submittal request.

Submitted By:

Name: _____ Signature: _____

Firm: _____

Address: _____

Phone: _____ Fax: _____

E-Mail: _____

Date of Submittal: _____

For Architect/Engineer Use:

Approved: _____ Approved As Noted: _____ Not Approved: _____

(Please briefly explain why not approved)

By: _____ Date: _____

Remarks:



Dear Wej-it Customer,

Recently you requested technical information regarding HDG or Stainless Steel ANKR-TITE wedge anchors in ACQ lumber. The following data should provide you with the information you need.

It has been determined that Hot Dipped Galvanized anchors meeting ASTM A-153 is an expectable anchor in ACQ lumber. Wej-it ANKR-TITE wedge anchors do come in a hot dipped version that meets ASTM A-153. Please see the supporting documentation and consult the engineer of record for specific applications.

Best Regards,

A handwritten signature in black ink that reads "David Gentry". The signature is written in a cursive style.

David Gentry
Vice President of Sales
Wej-it Fastening Systems
Cell: 918 630-2323
Office: 800 722-8063

ACQ Pressure-Treated Wood **Fastener Information Sheet**

Fasteners (and other metal products) for use with ACQ pressure-treated wood products

- **Hot-Dip Galvanized***

Fastener and hardware manufacturers have suggested the minimum Hot-Dip Galvanized requirements for use with treated wood should conform to the following ASTM Standards: ASTM-A153 (for Hot-Dip fastener products) and ASTM-A653 (Coating Designation G-185 for Hot-Dip connector and sheet products).

- **Stainless Steel**

Stainless steel fasteners and connectors are required for Permanent Wood Foundations below grade and are recommended for use with treated wood in other severe exterior applications such as swimming pools, salt water exposure, etc. - Type 304 and 316 are the recommended grades to use.

- **Other fasteners and hardware as recommended by the manufacturer**

There may be additional products (other than stainless steel or hot-dip galvanized) which are suitable for use with ACQ preserved wood. Please consult with the individual fastener or hardware manufacturer for recommendations for use of their products with ACQ preserved wood.

- **Dry Use Applications**

When ACQ preserved wood is used for interior applications with continuous dry conditions, where the wood in service will remain below 19% equilibrium moisture content, the performance of fasteners, hardware and other metal products in contact with the treated wood should be similar to that experienced with untreated wood.

- **Aluminum should not be used in direct contact with ACQ preserved wood**
Spacer materials or other physical barriers are recommended to prevent direct contact of ACQ preserved wood and aluminum products.

These fastener recommendations are comparable to fastener recommendations from other wood preservative manufacturers of ACQ and Copper Azole.

*Electroplated galvanized fastener and metal products are typically not accepted by the building codes for use in exterior applications, regardless of the type of wood used.

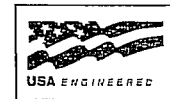
2003 International Residential Code - Fastener Statement - section R319.3



"Fasteners for pressure-preservative treated wood shall be of hot-dipped galvanized steel, stainless steel, silicon bronze or copper. Exception: One-half inch (12.7mm) diameter or greater steel bolts."

See back of sheet for list of hardware manufacturers that recommend hardware for use with Alkaline Copper Quaternary treated wood.

ANKR-TITE® Wedge Anchors



KEY FEATURES/BENEFITS

- **Will fit through a 1/16" larger pre-punched hole.**
- **Sets up fast.** Needs less rotation to achieve required torque.
- **Unique "Safety Shoulder" feature.** Supports clip when anchor is under strain, minimizes bolt-end collapse and/or clip slip-page under ultimate loading conditions.
- **Enlarged dimples on clip.** Reduces slip, more responsive in lighter concrete
- **360° segment contact on clip.** Equalizes load distribution providing greater load performance carrying capacity and "more forgiving" design.
- **Custom sizes available.** 1/4" to 1 1/4" diameters available in zinc, galvanized and stainless steel.

SPECIFICATIONS, APPROVALS AND LISTINGS

| TYPE | |
|------------------------|---|
| Zinc Plating | ASTM B-633, Type III, SCI |
| Galvanizing | ASTM A-153; B-454; B-695-82 and MIL-C-81562A with stainless steel clip. |
| ICC-ES | Cracked Concrete Approval Pending |
| City of Los Angeles | #RR 24939 |
| State DOT | Please call Customer Service for specific information by state. |
| Approvals | specific information by state. |
| Federal Specifications | QQZ-325Z, Type II, Class 3 (Clear Chromate added) |
| | FFS-325 Group II, Type 4, Class 1 |
| Dade County | Acceptance #00-0328.02 |



Formerly ICC-ES Legacy Report #1821*

The Anke-Tite wedge anchor complies with the 1997 uniform Building Code (UBC) the 2000 International Building Code (IBC), and the 2000 International Residents Code, Data Test in accordance with the ICC-ES criteria for Expansion anchors in Concrete and Masonry Elements (ACO) dated April 2002. Available upon Request.

MAXIMUM TENSILE AND SHEAR CAPACITY FOR STATIC LOADS

ZINC PLATED CARBON STEEL

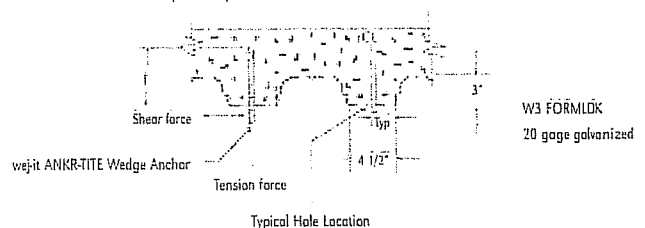
| Anchor & Hole Size | Embedment (in) | 4000 psi | | 6000 psi | |
|--------------------|----------------|---------------|-------------|---------------|-------------|
| | | Tension (lbs) | Shear (lbs) | Tension (lbs) | Shear (lbs) |
| 1/4 | 1 1/4 | 2000 | 2811 | 2042 | 2813 |
| 3/8 | 1 3/4 | 3165 | 3075 | 3165 | 3075 |
| | 4 5/8 | 4275 | 3075 | 5584 | 3075 |
| 1/2 | 2 1/2 | 6805 | 6260 | 8024 | 6260 |
| | 6 1/4 | 8249 | 7135 | 10713 | 7135 |
| 5/8 | 3 1/4 | 5180 | 9760 | 5057 | 6860 |
| | 6 | 12862 | 9760 | 16705 | 9760 |
| 3/4 | 3 3/4 | 12000 | 15860 | 12016 | 15860 |
| | 7 7/8 | 17756 | 23680 | 23060 | 23680 |
| 7/8 | 4 | • | • | 12016 | • |
| 1 | 4 | 13000 | 32494 | 13278 | 32494 |
| | 9 | 36171 | 32494 | 36171 | 32494 |
| 1 1/4 | 5 5/8 | 28733 | • | 28733 | • |
| | 10 | 50390 | • | 50390 | • |

CONCRETE FILLED STEEL DECK ULTIMATE TENSION & SHEAR (FT. LBS.)

Lower Flute of Steel Deck with Lightweight Concrete Fill*
f'c = 3,000 PSI

| Anchor Dia. (in) | Install. Torque | Embed. Depth (in) | Tension (lbs) | Shear (lbs) |
|------------------|-----------------|-------------------|---------------|-------------|
| 3/8 | 20-25 | 1 3/4 | 2414 | 4054 |
| 3/8 | | 3 | 3169 | |
| 1/2 | 50-55 | 2 1/2 | 3458 | 5038 |
| 1/2 | | 4 | 4274 | |
| 5/8 | 90-95 | 3 1/4 | 4199 | 5884 |
| 5/8 | | 5 | 5036 | |
| 3/4 | * | 3 3/4 | 5136 | 8030 |
| 3/4 | | 5 1/2 | 7711 | |

*Available upon request



E=Embedment depth in inches (S1: 1 inch = 25.4 mm)

NOTES:

- Information provided only for the use of a qualified design engineer. Use of technical data by persons not qualified could cause serious damage, injury, or even death.
- Ultimate values shown. For static loads, use one-fourth of the maximum tensile and shear capacities for the recommended 4:1 safety factor.
- Tested to ASTM E-488 Test Standard.
- Sources (available upon request): 1) U.S. Testing Co., Tulsa, OK

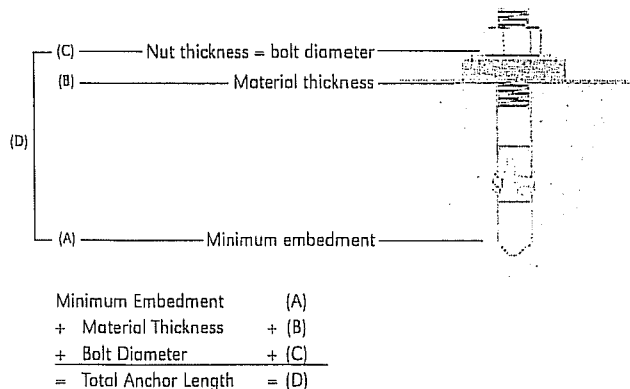
RECOMMENDED EDGE DISTANCE & SPACING

| Anchor Diameter | Embedment Depth | Edge | |
|-----------------|-----------------|-----------------------|----------------------|
| | | Distance Requirements | Spacing Requirements |
| 1/4 | 1 1/4 | 2 1/4 | 4 3/8 |
| 1/4 | 2 7/8 | 2 1/8 | 4 3/8 |
| 3/8 | 1 3/4 | 3 1/8 | 6 1/8 |
| 3/8 | 4 5/8 | 3 1/2 | 7 |
| 1/2 | 2 1/8 | 3 3/4 | 7 1/2 |
| 1/2 | 2 1/2 | 4 3/8 | 8 3/4 |
| 1/2 | 6 1/4 | 4 1/2 | 9 3/8 |
| 5/8 | 2 5/8 | 4 1/2 | 9 |
| 5/8 | 3 1/4 | 5 1/2 | 11 3/8 |
| 5/8 | 6 | 4 1/2 | 9 |
| 3/4 | 3 1/4 | 5 1/2 | 11 3/8 |
| 3/4 | 3 3/4 | 6 1/2 | 13 1/8 |
| 3/4 | 7 7/8 | 6 | 12 |
| 7/8 | 3 7/8 | 6 3/4 | 13 1/2 |
| 7/8 | 8 5/8 | 6 1/2 | 13 |
| 1 | 4 | 7 | 14 |
| 1 | 10 1/2 | 7 7/8 | 15 3/4 |

EDGE DISTANCE AND SPACING REQUIREMENTS

| Embedment (E) in Anchor Diameters | Spacing | Edge Distance |
|-----------------------------------|---------|---------------|
| $E \leq 6d$ (shallow) | 3.5E | 1.75E |
| $6d \leq E \leq 8d$ (standard) | 2.00E | 1.00E |
| $8d \leq E$ (deep) | 1.50E | 0.75E |

LENGTH SELECTION GUIDE



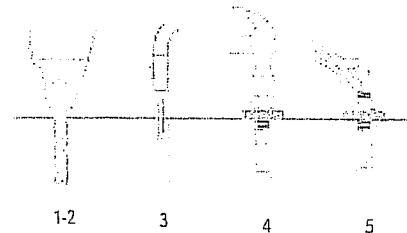
TORQUE VALUES

| Anchor Diameter (in) | Recommended Setting Torque (ft lb) for Zinc & Galvanized | Recommended Setting Torque (ft lb) Stainless Steel | W/O Inspection |
|----------------------|--|--|----------------|
| | | | Turns To Set |
| 1/4 | 6-8 | 4-7 | 3-5 |
| 3/8 | 20-25 | 20-25 | 3-5 |
| 1/2 | 50-55 | 40-50 | 3-5 |
| 5/8 | 90-95 | 80-90 | 3-5 |
| 3/4 | 165-175 | 145-155 | 3-5 |
| 7/8 | 240-250 | N/A | 3-5 |
| 1 | 290-300 | 250-275 | 3-5 |

LENGTH IDENTIFICATION CODES

| Code | Length of Anchor |
|------|------------------|
| A | 1 1/2 < 2 |
| B | 2 < 2 1/2 |
| C | 2 1/2 < 3 |
| D | 3 < 3 1/2 |
| E | 3 1/2 < 4 |
| F | 4 < 4 1/2 |
| G | 4 1/2 < 5 |
| H | 5 < 5 1/2 |
| I | 5 1/2 < 6 |
| J | 6 < 6 1/2 |
| K | 6 1/2 < 7 |
| L | 7 < 7 1/2 |
| M | 7 1/2 < 8 |
| N | 8 < 8 1/2 |
| O | 8 1/2 < 9 |
| P | 9 < 9 1/2 |
| Q | 9 1/2 < 10 |
| R | 10 < 11 |
| S | 11 < 12 |
| T | 12 < 13 |
| U | 13 < 14 |
| V | 14 < 15 |
| W | 15 < 16 |
| X | 16 < 17 |
| Y | 17 < 18 |
| Z | 18 < 19 |

INSTALLATION INSTRUCTIONS



1. Drill the hole, whose diameter equals the anchor diameter perpendicular to the work surface. To assure full holding power, do not ream the hole or allow the drill to wobble.*
2. Drill the hole deeper than the intended embedment, but not closer than two diameters to the bottom (opposite) surface of the concrete.
3. A clean hole is necessary for proper performance. Clean the hole using a nylon brush and compressed air.
4. Assemble the nut and washer so that the top of the nut is flush with the top of the anchor. Drive the anchor through the material to be fastened so that the nut and washer are flush with the surface of the material.
5. Tighten the nut, or head, 3 to 5 turns past the hand tight position. Installing the "ANKR-TITE® Series" of anchors with a torque wrench is recommended for optimum performance. Refer to adjacent chart.

* Always wear safety glasses. Follow drill manufacturer's instructions. Use only solid carbide-tipped drill bits meeting ANSI B212.15 diameter standards.

ORDER INFORMATION

Call for Pallet Pricing

| Carbon Steel | | Stainless Steel | | Anchor Diameter & Length (in) | Minimum Embedment (in) | Thread Length (in) | Quantity | |
|--------------|------------|-----------------|-----------|-------------------------------|------------------------|--------------------|------------|------|
| Zinc Plated | Galvanized | 303/302HQ | 316 | | | | Box/Carton | Bulk |
| AT1413 | ATG1413* | ATS1413 | | 1/4 x 1 3/4 | 1 1/4 | 3/4 | 100/800 | 4000 |
| ZAT1413 | ZATG1413 | ZATS1413 | | | | | 20/400 | |
| AT1421 | ATG1421* | ATS1421 | ATSS1421 | 1/4 x 2 1/4 | 1 1/4 | 1 1/4 | 100/800 | 2000 |
| ZAT1421 | ZATG1421 | ZATS1421 | ZATSS1421 | | | | 20/400 | |
| AT1431 | ATG1431* | ATS1431 | ATSS1431 | 1/4 x 3 1/4 | 1 1/4 | 2 1/4 | 100/800 | 2000 |
| ZAT1431 | ZATG1431 | ZATS1431 | ZATSS1431 | | | | 20/400 | |
| AT3821 | ATG3821 | ATS3821 | ATSS3821 | 3/8 x 2 1/4 | 1 3/4 | 1 | 50/400 | 1200 |
| ZAT3821 | ZATG3821 | ZATS3821 | ZATSS3821 | | | | 20/400 | |
| AT3823 | ATG3823 | ATS3823 | ATSS3823 | 3/8 x 2 3/4 | 1 3/4 | 1 1/2 | 50/400 | 1200 |
| ZAT3823 | ZATG3823 | ZATS3823 | ZATSS3823 | | | | 20/400 | |
| AT3830 | ATG3830 | ATS3830 | ATSS3830 | 3/8 x 3 | 1 3/4 | 1 3/4 | 50/400 | 1000 |
| ZAT3830 | ZATG3830 | ZATS3830 | ZATSS3830 | | | | 20/400 | |
| AT3833 | ATG3833 | ATS3833 | ATSS3833 | 3/8 x 3 3/4 | 1 3/4 | 2 1/2 | 50/400 | 500 |
| ZAT3833 | ZATG3833 | ZATS3833 | ZATSS3833 | | | | 20/400 | |
| AT3850 | ATG3850 | ATS3850 | ATSS3850 | 3/8 X 5 | 1 3/4 | 3 1/4 | 50/400 | 500 |
| ZAT3850 | ZATG3850 | ZATS3850 | ZATSS3850 | | | | 20/200 | |
| AT3870 | | ATS3870 | | 3/8 x 7 | 1 3/4 | 4 1/2 | 20/200 | |
| AT1223 | ATG1223 | ATS1223 | ATSS1223 | 1/2 x 2 3/4 | 2 1/8 | 1 1/8 | 25/200 | 500 |
| ZAT1223 | ZATG1223 | ZATS1223 | ZATSS1223 | | | | 10/100 | |
| AT1233 | ATG1233 | ATS1233 | ATSS1233 | 1/2 x 3 3/4 | 2 1/8 | 2 1/8 | 25/200 | 500 |
| ZAT1233 | ZATG1233 | ZATS1233 | ZATSS1233 | | | | 10/200 | |
| AT1241 | ATG1241 | ATS1241 | ATSS1241 | 1/2 x 4 1/4 | 2 1/8 | 2 5/8 | 25/200 | 400 |
| ZAT1241 | ZATG1241 | ZATS1241 | ZATSS1241 | | | | 10/200 | |
| AT1242 | ATG1242 | ATS1242 | ATSS1242 | 1/2 x 4 1/2 | 2 1/8 | 2 5/8 | 25/200 | 400 |
| ZAT1242 | ZATG1242 | ZATS1242 | ZATSS1242 | | | | 10/200 | |
| AT1252 | ATG1252 | ATS1252 | ATSS1252 | 1/2 x 5 1/2 | 2 1/8 | 3 3/4 | 25/150 | 300 |
| ZAT1252 | ZATG1252 | ZATS1252 | ZATSS1252 | | | | 10/200 | |
| AT1270 | ATG1270 | ATS1270 | ATSS1270 | 1/2 x 7 | 2 1/8 | 4 1/2 | 25/150 | 250 |
| ZAT1270 | ZATG1270 | ZATS1270 | ZATSS1270 | | | | 10/200 | |
| AT1282 | | ATS1282 | | 1/2 x 8 1/2 | 2 1/8 | 5 | 10/200 | |
| AT5832 | ATG5832 | ATS5832 | ATSS5832 | 5/8 x 3 1/2 | 2 5/8 | 1 1/2 | 10/80 | 400 |
| ZAT5832 | ZATG5832 | ZATS5832 | ZATSS5832 | | | | 5/50 | |
| AT5841 | ATG5841 | ATS5841 | ATSS5841 | 5/8 x 4 1/4 | 2 5/8 | 2 3/8 | 10/80 | 250 |
| ZAT5841 | ZATG5841 | ZATS5841 | ZATSS5841 | | | | 5/50 | |
| AT5850 | ATG5850 | ATS5850 | ATSS5850 | 5/8 x 5 | 2 5/8 | 3 1/8 | 10/80 | 250 |
| ZAT5850 | ZATG5850 | ZATS5850 | ZATSS5850 | | | | 5/50 | |
| AT5860 | ATG5860 | ATS5860 | ATSS5860 | 5/8 x 6 | 2 5/8 | 4 | 10/80 | 200 |
| ZAT5860 | ZATG5860 | ZATS5860 | ZATSS5860 | | | | 5/50 | |
| AT5870 | ATG5870 | ATS5870 | ATSS5870 | 5/8 x 7 | 2 5/8 | 4 1/2 | 10/80 | 100 |
| ZAT5870 | ZATG5870 | ZATS5870 | ZATSS5870 | | | | 5/50 | |
| AT5882 | ATG5882 | ATS5882 | ATSS5882 | 5/8 x 8 1/2 | 2 5/8 | 5 | 10/40 | 100 |
| ZAT5882 | ZATG5882 | ZATS5882 | ZATSS5882 | | | | 5/50 | |
| AT5810 | | ATS5810 | | 5/8 x 10 | 2 5/8 | 5 | 10/40 | 100 |
| AT3441 | ATG3441 | ATS3441 | ATSS3441 | 3/4 x 4 1/4 | 3 1/4 | 2 | 10/80 | 150 |
| ZAT3441 | ZATG3441 | ZATS3441 | ZATSS3441 | | | | 5/50 | |
| AT3443 | ATG3443 | ATS3443 | ATSS3443 | 3/4 x 4 3/4 | 3 1/4 | 2 1/2 | 10/80 | 150 |
| ZAT3443 | ZATG3443 | ZATS3443 | ZATSS3443 | | | | 5/50 | |
| AT3452 | ATG3452 | ATS3452 | ATSS3452 | 3/4 x 5 1/2 | 3 1/4 | 3 1/4 | 10/60 | 150 |
| ZAT3452 | ZATG3452 | ZATS3452 | ZATSS3452 | | | | 5/50 | |
| AT3461 | ATG3461 | ATS3461 | ATSS3461 | 3/4 x 6 1/4 | 3 1/4 | 3 3/4 | 10/60 | |
| ZAT3461 | ZATG3461 | ZATS3461 | ZATSS3461 | | | | 5/50 | |
| AT3470 | ATG3470 | ATS3470 | ATSS3470 | 3/4 x 7 | 3 1/4 | 4 3/4 | 10/60 | 100 |
| ZAT3470 | ZATG3470 | ZATS3470 | ZATSS3470 | | | | 5/50 | |
| AT3482 | ATG3482 | ATS3482 | ATSS3482 | 3/4 x 8 1/2 | 3 1/4 | 5 | 10/40 | 75 |
| ZAT3482 | ZATG3482 | ZATS3482 | ZATSS3482 | | | | 5/50 | |
| AT3410 | ATG3410 | ATS3410 | ATSS3410 | 3/4 x 10 | 3 1/4 | 5 | 10/40 | 75 |
| AT3412 | ATG3412* | ATS3412 | ATSS3412 | 3/4 x 12 | 3 1/4 | 5 | 5/20 | |
| AT7860 | ATG7860* | | | 7/8 x 6 | 3 7/8 | 3 1/2 | 5/30 | 70 |
| AT7880 | ATG7880* | | | 7/8 x 8 | 3 1/4 | 5 | 5/20 | 50 |
| AT7810 | ATG7810* | | | 7/8 x 10 | 3 7/8 | 6 | 5/20 | 50 |
| AT1060 | ATG1060* | ATS1060 | ATSS1060 | 1 x 6 | 4 | 3 | 5/30 | 70 |
| AT1090 | ATG1090* | ATS1090 | ATSS1090 | 1 x 9 | 4 | 5 | 5/20 | 50 |
| AT1012 | ATG1012* | ATS1012 | ATSS1012 | 1 x 12 | 4 | 5 | 5/30 | 40 |
| AT11490 | ATG11490 | | | 1 1/4 x 9 | 6 1/4 | 5 | 4/16 | |
| AT11412 | ATG11412 | | | 1 1/4 x 12 | 6 1/4 | 5 | 4/16 | |

| Catalog Number Carded | Anchor Diameter & Length (in) | Minimum Embedment (in) | Anchors Per Card | Quantity | Cards Per Box/Carton |
|-----------------------|-------------------------------|------------------------|------------------|----------|----------------------|
| DBAT1413 | 1/4 x 1 3/4 | 1 1/4 | 6 | | 10/60 |
| DBAT1421 | 1/4 x 2 1/4 | 1 1/4 | 6 | | 10/60 |
| DBAT1431 | 1/4 x 3 1/4 | 1 1/4 | 6 | | 10/60 |
| DBAT3821 | 3/8 x 2 1/4 | 1 3/4 | 4 | | 10/60 |
| DBAT3823 | 3/8 x 3 3/4 | 1 3/4 | 4 | | 10/60 |
| DBAT3830 | 3/8 x 3 | 1 3/4 | 4 | | 10/60 |
| DBAT1223 | 1/2 x 2 3/4 | 2 1/8 | 4 | | 10/60 |

*Contact Customer Service for box/carton quantities