

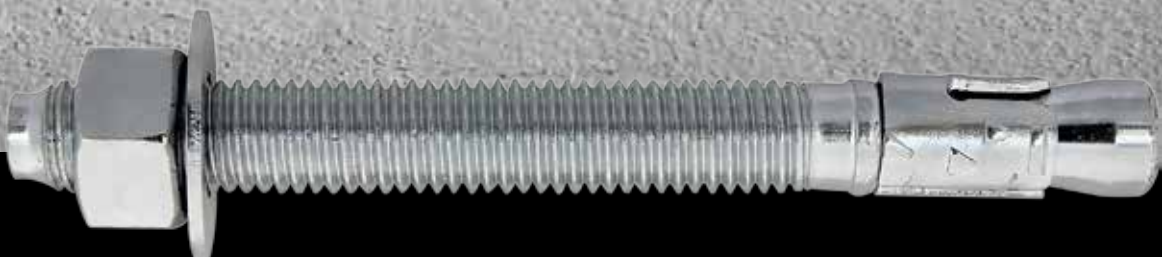
 **RED HEAD[®]**
Trubolt⁺

RIGHT-SIZE YOUR ANCHOR SIZE

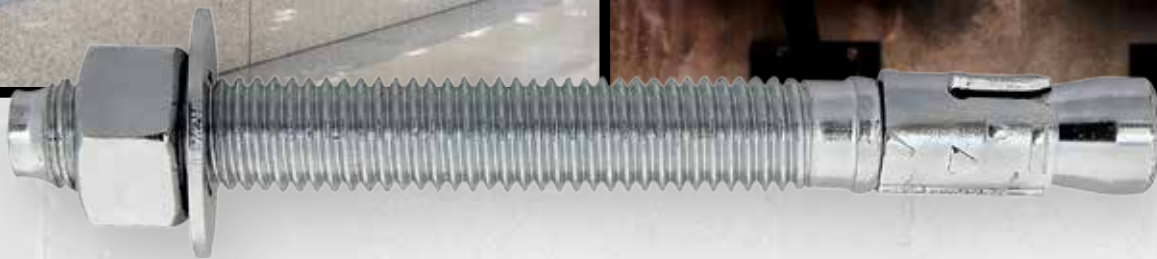
**THE MARKET'S FIRST 1/4" SEISMIC, CRACKED,
AND UN-CRACKED CONCRETE ANCHOR, CAN DO
THE WORK OF SELECT 3/8" APPLICATIONS.**

ICC
ES
ICC-ESR 3772

**CRACKED &
UNCRACKED**
**SEISMIC
APPROVED**



1 / 4 " SEISMIC CONCRETE WEDGE ANCHOR



MORE VERSATILITY FOR APPLICATION REQUIREMENTS

The first 1/4" Seismic, cracked and uncracked concrete wedge anchor in the market.

Great design flexibility with minimum edge distance and anchor spacing requirements.

Evaluated for (ICC-ESR Report No. 3772, IBC-2015, COLA, Florida Building Code).

SUPERIOR PERFORMANCE IN TENSION STRENGTH

Best performance in steel strength in tension.

Top performer in steel strength in shear, uncracked or cracked.

Hardened washer to minimize deflection and reduce possible fixture looseness.

INCREASED PRODUCTIVITY ON THE JOBSITE

Reduce jobsite complexity by using the same 1/4" anchor in seismic and non-seismic zones.

Reduce inventory cost more than 50% by replacing the 3/8" inventory with less expensive 1/4".

Reduce material cost by using a 1/4" wedge anchor instead of a 3/8" wedge anchor in select applications

Reduce cost in place by drilling 1/4" holes faster than 3/8" holes.

TYPICAL APPLICATIONS

THE STRENGTH TO HANDLE A WIDE RANGE OF APPLICATIONS

**STADIUM SEATING
LIGHT FIXTURES**

**STEEL TRACK
ELECTRICAL CABLE TRAYS**

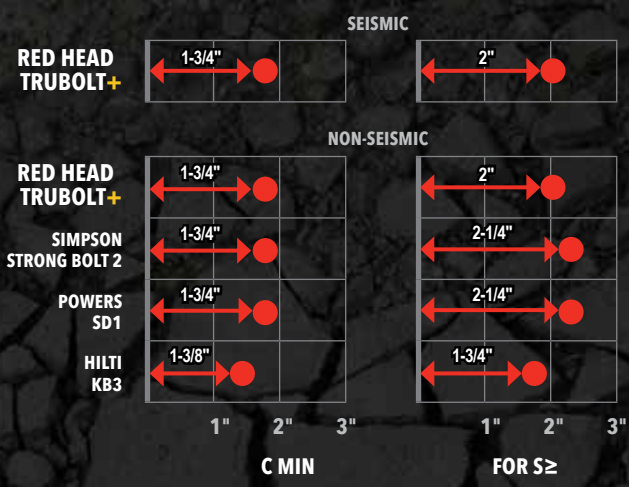
**CONDUIT FASTENERS
SIGNAGE**

**ELECTRICAL STRUT
CHANNELING**



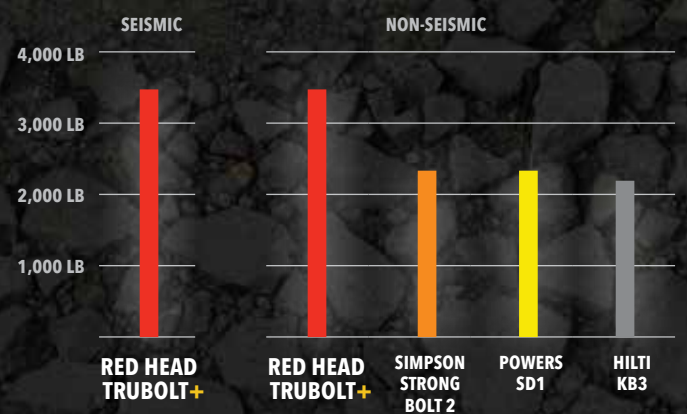
MINIMUM EDGE DISTANCE COMPARISON

Look to Red Head Trubolt+ wedge anchor to provide you with the maximum flexibility for project designs and specifications.



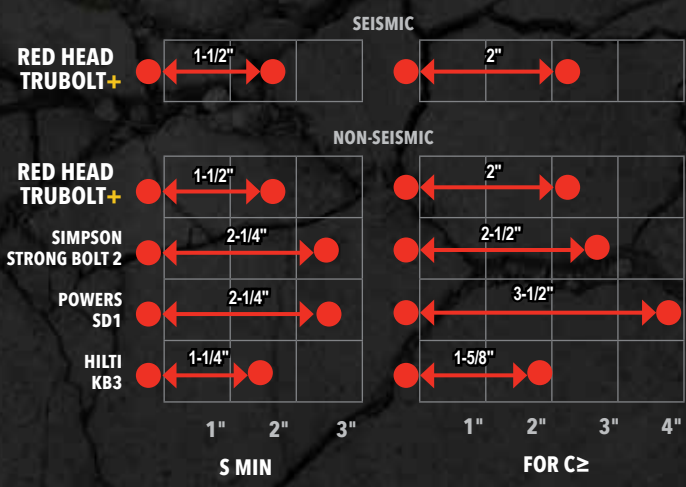
STEEL STRENGTH IN TENSION

The Red Head Trubolt+ wedge anchor superior steel strength outperforms any other wedge anchor on the market.



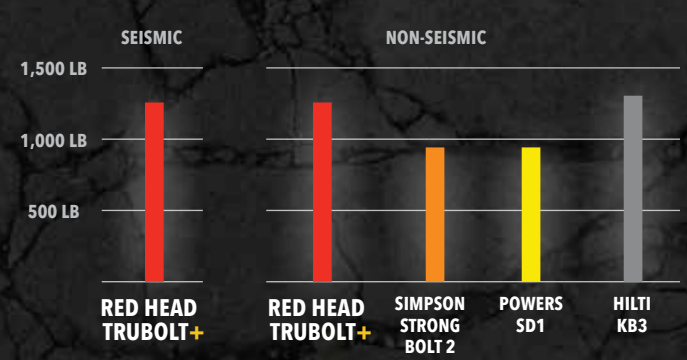
MINIMUM ANCHOR SPACING COMPARISON

The Red Head Trubolt+ wedge anchor helps you meet a variety of specification ranges with close proximity designs.



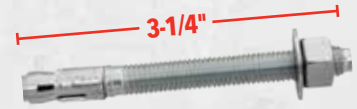
STEEL STRENGTH IN SHEAR, UNCRACKED OR CRACKED

Red Head Trubolt+ wedge anchor is forged to provide great strength and reliability in a variety of applications.





PRODUCT OFFERING



DIMENSIONS	TRUBOLT 1/4" x 1-3/4"	TRUBOLT+ 1/4" x 2-1/4"	TRUBOLT+ 1/4" x 3-1/4"
PART NUMBER	TB4C-1416*	TB4C-1422	TB4C-1432

PACKAGING INFORMATION: BOX: 100 ANCHORS | CASE: 6 BOXES / 600 ANCHORS | PALLET: 33 CASES / 198 BOXES / 19,800 ANCHORS
 *Anchor does not meet the minimum nominal embedment required to have seismic and cracked concrete approval

COMPETITOR COMPARISON

DESIGN INFORMATION	SYMBOL	RED HEAD TRUBOLT+	HILTI	POWERS	SIMPSON	RED HEAD TRUBOLT+	SIMPSON STRONG BOLT 2	POWERS SD1	HILTI KB3
		SEISMIC 1/4" SEISMIC, CRACKED & UN-CRACKED CONCRETE APPROVED				NON-SEISMIC 1/4" UN-CRACKED CONCRETE APPROVED			
ANCHOR CATEGORY	1, 2, and 3	1	NA	NA	NA	1	1	1	1
EFFECTIVE MINIMUM EMBEDMENT	hef	1-1/2"	NA	NA	NA	1-1/2"	1-1/2"	1-1/2"	1-1/2"
MIN. MEMBER THICKNESS	hmin	4"	NA	NA	NA	4"	3-1/4"	3-1/4"	4"
MIN. EDGE DISTANCE	Cmin for s≥	1 3/4" 2"	NA NA	NA NA	NA NA	1 3/4" 2"	1-3/4" 2 1/4"	1-3/4" 2-1/4"	1-3/8" 1-3/4"
MIN. ANCHOR SPACING	Smin for c≥	1-1/2" 2"	NA NA	NA NA	NA NA	1-1/2" 2"	2 1/4" 2 1/2"	2-1/4" 3-1/2"	1-1/4" 1-5/8"
CRITICAL EDGE DISTANCE	Cac	3-1/2"	NA	NA	NA	3-1/2"	2 1/2"	3-1/2"	2-3/4"
STEEL STRENGTH IN TENSION	Nsa	3,480 LB	NA	NA	NA	3,480 LB	2,225 LB	2,255 LB	2,120
PULLOUT STRENGTH, UNCRACKED CONCRETE	Np, uncr	2,025 LB	NA	NA	NA	2,025 LB	NC	NC	1,575 LB
PULLOUT STRENGTH, CRACKED CONCRETE	Np, cr	735 LB	NA	NA	NA	735 LB	NA	NA	NA
PULLOUT STRENGTH, SEISMIC LOADS	Np,eq	735 LB	NA	NA	NA	735 LB	NA	NA	NA
STEEL STRENGTH IN SHEAR, UNCRACKED OR CRACKED	Vsa	1,240 LB	NA	NA	NA	1,240 LB	965 LB	925 LB	1,640 LB
STEEL STRENGTH IN SHEAR, SEISMIC	Vsa,eq	1,240 LB	NA	NA	NA	1,240 LB	NA	NA	NA

SOURCE: ICC-ESR REPORTS 3772, 2818, 1917, 2502, 3037, 3904, 2818 | CONCRETE PSI: 2,500 LBS | NA: NOT AVAILABLE | NC: PULLOUT STRENGTH DOES NOT CONTROL DESIGN OF INDICATED ANCHORS

GUIDE SPECIFICATION: CSI Division number 03 16 00-Concrete Anchors, 04 05 19.16 - Masonry anchors and 05 05 19- Post Installed Concrete Anchors. Expansion anchors shall be Trubolt+ as supplied by ITW RED HEAD, Glendale Heights, IL. Anchors should be installed in accordance with published instructions and the Authority having Jurisdiction.

ONLINE RESOURCES FOR DESIGNERS



Download today, Anchor Calculation software for designing concrete connections in compliance with ACI 318 Appendix D/ Chapter 17.

VISIT ITWREDHEAD.COM/TRUSPEC

MOBILE RESOURCES FOR CONTRACTORS

Check out mobile calculators and resources to simplify your job. AVAILABLE FOR DOWNLOAD UNDER ITW RED HEAD IN APP STORES.



FOR MORE INFORMATION VISIT ITWREDHEAD.COM