MADE IN USA WITH U.S. AND GLOBAL MATERIAL

# RED HEAD

# MAXIMUM VERSATILITY

FOR SUPERIOR ANCHOR RELIABILITY, INCREASED PRODUCTIVITY, AND JOBSITE SIMPLICITY





ICC-ESR 3772

UNIVERSAL CONCRETE WEDGE ANCHORS

# THE INDUSTRY'S MOST VERSATILE CONCRETE WEDGE ANCHORS

Trubolt+ concrete wedge anchors cover all of your application needs - simplifying your work while ensuring maximum anchor reliability.

Trubolt+ combines the strength and performance values required to meet both seismic and non-seismic applications. With Trubolt+, you have the versatility to tackle the widest variety of projects ranging from structural steel beams to fire sprinkler systems.

The unique versatility of Trubolt+ delivers maximum reliability and peace of mind. Engineers gain greater design flexibility while builders benefit from enhanced job site productivity. Make the easy choice, choose the industry's most versatile line of concrete wedge anchors for all your applications, including cracked and uncracked applications.



## **HARDENED WASHER**

12 TOT

Tighter interior dimension and thickness minimizes or completely eliminates washer deflection from over-torquing

## FULLY THREADED ANCHOR BODY

Cover a wider range of applications including varying embedment depths, fixtures or plate thicknesses all with the same size anchor

### **MADE IN THE USA**

Wedge anchor body made from USA steel provides maximum steel strength for the most demanding applications

### **PATENTED CLIP**

Designed to provide maximum holding power



#### **RED HEAD MARK**

Look for the Red Head marking so you know you have the right product for the job!

# **INSTALL** WITH CERTAINTY

Superior tension and shear performance values ensure secure attachment in un-cracked, cracked concrete, and seismic conditions.

Industry-leading edge distance and spacing increases design and installation flexibility.

New washer design minimizes the risk of deflection (bending) from over-torqueing, preventing loose or wobbly fixture attachment that can effect anchor and system performance.

# **BOOST** YOUR PRODUCTIVITY

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Superior performance values allow you to use smaller anchors, saving drill time, torqueing effort, and material costs.

TruBolt+ offers the first and only 1/4" anchor with ICC cracked/seismic approval; replacing the need for a 3/8" anchor when a 1/4" can do the job.

Trubolt+ offers the broadest range of anchor sizes, providing you with the most options to right-size your anchor to specific requirements.

# SIMPLIFY YOUR JOBSITE

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Stocking one anchor type that covers the widest range of applications reduces the risk of selecting the wrong anchor on the job.

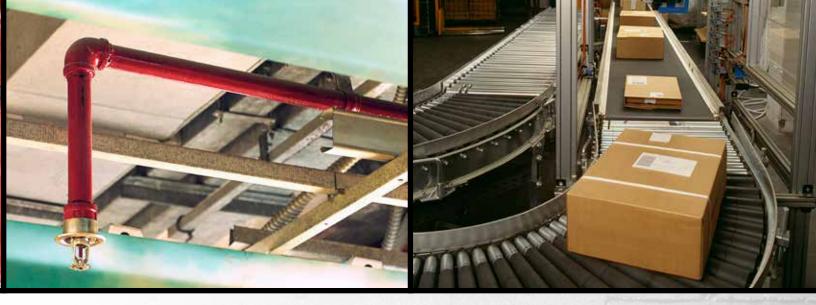
Trubolt+ is approved for use in concrete, concrete-filled metal deck and grout-filled block, allowing you to stock only one anchor for use with various base materials.

Fully threaded stud allows one anchor size to be used with a wider range of base plate and fixture thicknesses.

# **ONE WEDGE ANCHOR LINE NOW DOES THE WORK OF MULTIPLE PRODUCTS**

TRUBOLT+ REPLACES THE NEED FOR SEPARATE WEDGE ANCHORS FOR CRACKED, UN-CRACKED, AND SEISMIC APPLICATIONS.

	HILTI	DEWALT	SIMPSON StrongTie
CRACKED, UN-CRACKED, AND SEISMIC		UN-CRACKED OR NO ICC APPROVA	NL
	KBV KB3	Powers Stud Domestic Anchor	Wedge All
Trubolt <sup>+</sup>	CRACKED, UN-CRACKED, AND SEISMIC		
	KBTZ KBVTZ	SD1+ SD2+	Strong Bolt 2



# **TYPICAL APPLICATIONS** THE STRENGTH TO HANDLE A WIDE RANGE OF APPLICATIONS

RAILINGS AND FENCING

**RACKING & CONVEYOR** SYSTEMS

**OVERHEAD DUCTWORK** AND PIPES

**CURTAIN WALL** AND CLADDING

**STRUCTURAL STEEL COLUMNS** AND BEAMS

**ELECTRICAL CONDUIT, CABLE TRAYS** AND PANELS

**MACHINERY & EQUIPMENT** ANCHORING

> SIGNAGE AND LIGHTING FIXTURES

SEISMIC BRACING AND HOLD-DOWNS

Trubolt+ is forged for strength and engineered for simplicity, making it the industry's most versatile and affordable line of concrete wedge anchors. From seismic to non-seismic requirements, from heavy-duty to light-duty, with Trubolt+, you have the versatility to tackle the broadest range of projects.

# **RIGOROUSLY TESTED. WIDELY APPROVED**





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

(Strength Design method using Appendix D / Chapter 17)

Evaluated and gualified by an accredited independent testing

including seismic and wind loading (Category 1 anchors)

laboratory for recognition in cracked and un-cracked concrete

Code Compliant with the 2015 IBC, 2015 IRC.

in structural concrete under the design provisions of ACI 318



APPROVED





- International Code Council, ICC Evaluation Service, ESR-3772 for Concrete & ESR-4058 for Masonry,
- FM approval # 0003053725
- UL certified # 20140925-EX971
- City of Los Angeles #26086
- Florida Building Code

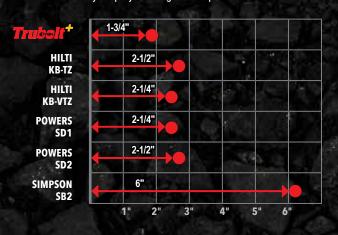
#### VISIT ITWREDHEAD.COM/ENGINEERING FOR COMPLETE TECHNICAL SPECIFICATIONS AND APPROVALS.

RECOMMENDED SPECIFICATION TEXT: 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.



## **MINIMUM EDGE DISTANCE**

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



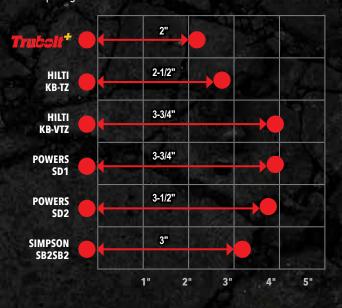
# **PULLOUT STRENGTH**

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

	SEISMIC UNCRACKED (LBS) CONCRETE (LBS		CRACKED () CONCRETE (LBS)	
Trubolt+	CONCRETE FAILURE	CONCRETE FAILURE	CONCRETE FAILURE	
HILTI KB-TZ	CONCRETE FAILURE	2,515	2,270	
HILTI KB-VTZ	2,040	2,490	2,040	
POWERS SD1	2,035	2,865	2,035	
POWERS SD2	2,165	2,775	2,165	
SIMPSON SB2	2,755	3,340	2,755	

## **MINIMUM ANCHOR SPACING**

The Red Head Trubolt+ wedge anchor allows for the closest spacing distance.

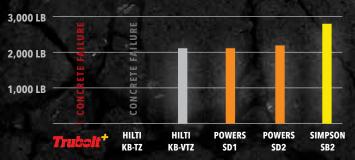


# **STEEL STRENGTH**

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

	TENSION (LBS)	SHEAR CRACKED OR UNCRACKED (LBS)	SHEAR-SEISMIC LOADS (LBS)	
Trubolt*	6,720	3,720	3,000	
HILTI KB-TZ	6,500	3,595	2,255	
HILTI KB-VTZ	6,000	2,730	2,480	
POWERS SD1	5,455	2,990	2,440	
POWERS SD2	6,625	3,115	2,460	
SIMPSON SB2	5,600	1,800	1,800	

## SEISMIC PERFORMANCE



# **ORDERING INFORMATION**

PART #	DESCRIPTION	SIZE	BOX (EA QTY)	MASTER CARTON (EA QTY)	PALLET (EA QTY)
TB4C-1416*	TRUBOLT	1/4 X 1 3/4"	100	600	18,000
TB4C-1422	TRUBOLT+	1/4 X 2 1/4"	100	600	18,000
TB4C-1432	TRUBOLT+	1/4 X 3 1/4"	100	600	18,000
TB4C-3822*	TRUBOLT	3/8 X 2 1/4"	50	300	9,000
TB4C-3826*	TRUBOLT	3/8 X 2 3/4"	50	300	9,000
TB4C-3830	TRUBOLT+	3/8 X 3"	50	300	9,000
TB4C-3834	TRUBOLT+	3/8 X 3-1/2"	50	300	9,000
TB4C-3836	TRUBOLT+	3/8 X 3-3/4"	50	300	9,000
TB4C-3850	TRUBOLT+	3/8 X 5"	50	250	10,000
TB4C-3870	TRUBOLT+	3/8 X 7	50	250	10,000
TB4C-1226*	TRUBOLT	1/2 X 2 3/4"	25	150	4,500
TB4C-1236	TRUBOLT+	1/2 X 3-3/4"	25	150	4,500
TB4C-1242	TRUBOLT+	1/2 X 4-1/4"	25	150	4,500
TB4C-1244	TRUBOLT+	1/2 X 4-1/2"	25	150	4,500
TB4C-1254	TRUBOLT+	1/2 X 5-1/2"	25	150	4,500
TB4C-1270	TRUBOLT+	1/2 X 7"	25	125	3,750
TB4C-5834*	TRUBOLT	5/8 X 3-1/2"	10	60	1,800
TB4C-5844	TRUBOLT+	5/8 X 4-1/2"	10	60	1,800
TB4C-5850	TRUBOLT+	5/8 X 5"	10	60	1,800
TB4C-5860	TRUBOLT+	5/8 X 6"	10	60	1,800
TB4C-5870	TRUBOLT+	5/8 X 7"	10	60	1,800
TB4C-5884	TRUBOLT+	5/8 X 8-1/2"	10	30	1,200
TB4C-58100	TRUBOLT+	5/8 X 10"	10	30	1,200
TB4C-3442*	TRUBOLT	3/4 X 4-1/4"	10	60	1,800
TB4C-3446*	TRUBOLT	3/4 X 4-3/4"	10	60	1,800
TB4C-3454	TRUBOLT+	3/4 X 5-1/2"	10	60	1,800
TB4C-3462	TRUBOLT+	3/4 X 6-1/4"	10	30	1,200
TB4C-3470	TRUBOLT+	3/4 X 7"	10	30	1,200
TB4C-3484	TRUBOLT+	3/4 X 8-1/2"	10	30	1,200
TB4C-34100	TRUBOLT+	3/4 X 10"	10	30	1,200
TB4C-34120	TRUBOLT+	3/4 X 12"	10	30	1,200
TB4C-10060	TRUBOLT	1 X 6"	5	15	600
TB4C-10090	TRUBOLT+	1 X 9"	5	15	600
TB4C-100120	TRUBOLT+	1 X 12"	5	15	600
TB4C-11490	TRUBOLT+	1-1/4" X 9"	5	15	600
TB4C-114120	TRUBOLT+	1-1/4" X 12"	5	15	600

\* ANCHOR DOES NOT MEET THE MINIMUM NOMINAL EMBEDMENT REQUIRED FOR STRENGTH DESIGN

# AMERICAN KNOW-HOW AT ITS BEST



MADE IN USA WITH U.S. AND GLOBAL MATERIALS

Red Head Trubolt+ is made by the Commercial Construction Division of Illinois Tool Works (ITW), a Fortune 200 company recognized as one of the top industrial manufacturers in the world. The anchor body is made from steel produced in the USA, which is then formed, plated, assembled and packaged at our plant in Roselle, IL\* Our advanced production technology and in-house ISO/IAS-certified test lab ensures the highest quality and consistent reliability.

- Recognized, trusted brand simplifies submittals and change requests
- Domestic manufacturing and local distribution ensures ready availability
- Fully complies with the Buy American Act, the Federal American Recovery & Reinvestment Act, plus all LEEDs requirements

\*Other anchor components procured from U.S. and global sources.

# **ONLINE RESOURCES FOR DESIGNERS**

Download our 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 our mobile sumbittal generator, competitive cross-reference guide and other resources to simplify your job. **AVAILABLE NOW AT ITWCCNA.COM/CALCULATOR** 



# FOR MORE INFORMATION VISIT ITWREDHEAD.COM