

UTECH

CHEMICAL ANCHORS FOR HIGH LOAD APPLICATIONS



RU MADE IN
RUSSIA

WWW.UTECH.PRO
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web page





About brand:

- UTECH is a Russian brand of engineering solutions for construction applications. We develop our products based on advanced technologies and international experience.
- The brand's first product was UTECH HITRE 500 chemical anchor for high load applications.

MANUFACTURED IN RUSSIA

UTECH chemical anchors are manufactured in Russia using the Russian raw materials and in compliance with international standards.

Ivanteevka

Moscow Region



Area

1,000 sq. m



Production capacity

1,000 pcs. / 1 shift

Key factors for creating high quality products:

- Semi-automatic line
- High performance production equipment
- Highly qualified personnel
- Full production cycle
- Advanced R&D laboratory



UTECH

APPLICATION

UTECH chemical anchors are used for fastening of load-bearing structures of buildings and constructions, as well as for extending or strengthening reinforced concrete structures.



Fastening for critical and load-bearing structures

Post-installed rebar



Fastening of embedded parts

APPLICATION

UTECH chemical anchors are suitable for fastening structures affected by static and dynamic loads.



**Fastening
of auxiliary
structures
and equipment**

**Fastening
of temporary
structures**



**Fastening of facade
systems**



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UTECH HITRE 500



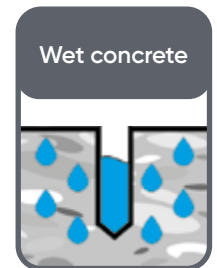
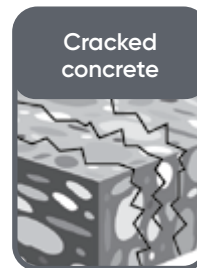
UTECH HITRE 500

Description: Epoxy resin based two-component chemical anchor dedicated for high loads in cracked and non-cracked concrete

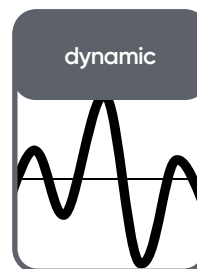
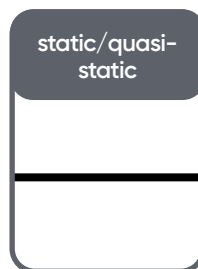
Tube vol.: 585 ml

Application: for setting threaded rods and rebar, including extensions for reinforced concrete structures

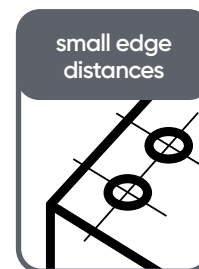
Base material



Loads



Other information



HOW IT WORKS

Anchor element forces are applied to the concrete base by chemical adhesion and mechanical micro-adhesion of the hardened adhesive to the hole surface.

PORTFOLIO AND DELIVERY SCOPE



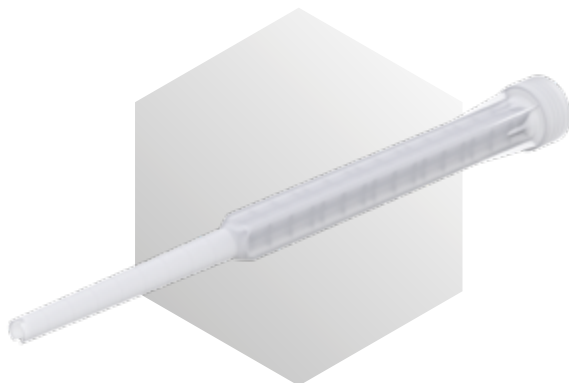
Chemical injection mortar
UTECH HITRE 500 (585 ml)
 Item No. 3892507



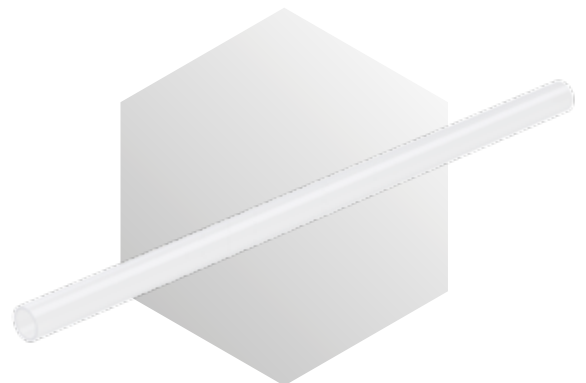
Cartridge U-500
 for Hilti dispensers
 Item No. 3892509



Dispenser
 Hilti manual or battery-actuated
 dispensers



HITRE Mixer
 Item No. 3892508



Extension tube U-220
 Item No. 3892510

Anchor delivery scope

- Mortar tube vol. 585 ml - 1 pc.
- Mixer - 1 pc.
- Extension tube 220 mm - 1 pc.
- Operating instruction - 1 pc.

BENEFITS

Manufactured in Russia, high load-bearing capacity, wide range of applications and professional technical support.



High loads for concrete base

High load-bearing capacity due to adhesion between the concrete base and set element



Small spacing and edge distances

Fasteners can be installed with small edge distance and spacing



Wider range of application

Installation temperatures up to $-10\text{ }^{\circ}\text{C}$
Operation temperatures between $-60\text{ }^{\circ}\text{C}$ and $+70\text{ }^{\circ}\text{C}$



Durability

Reliable element adhesion, 50+ years of operation



Immunity to aggressive environments and corrosion protection

The hole is completely filled with mortar to prevent water penetration and metal corrosion



Technical support and field service

Fast field service and technical support for solving engineering issues

Wider range of application when compared to foreign similar products. Professional engineering support during design stage and on site installation.

BENEFITS

With our approach to technical data and certification, we adhere to honesty and transparency of obtained results.



Tested by accredited lab



All performance indicators are physically determined and substantiated



Each test validated by respective documents



Professional calculations

High load-bearing capacity and performance have been confirmed by accredited laboratory of the National Research University Moscow State University of Civil Engineering.



EXTENDED TESTING PROGRAM

UTECH anchors are the first in Russia to undergo a **complete** certification testing program according to GOST standards for the bonding of threaded rods and reinforcement bars under static and seismic loads.



National Research University Moscow State University of Civil Engineering

The laboratory of the Research Institute of Experimental Mechanics of Moscow State University of Civil Engineering has carried out more than 700 tests, including unique cases

Exothermic tests were conducted for M56 threaded rods



FSUE "NAMI" State Scientific Center, Russian Federation

Successfully completed impact load tests for barrier fences

UTECH VOLUME CALCULATOR

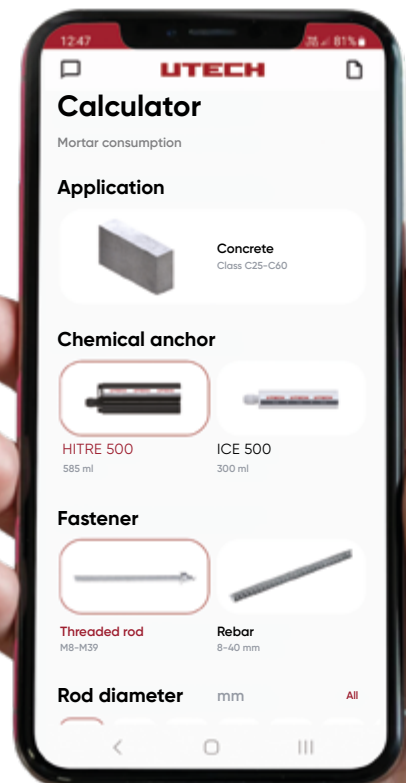
UTECH Calculator is a free Android application designed for the quick and easy calculation of the required number of tubes of UTECH chemical anchors (HITRE 500 or ICE 500) for your specific needs.

The application will calculate the number of adhesive anchors needed for the specified volume of fixings and provide recommendations for injection using the selected dispenser. To obtain the results, you will need to specify the type and diameter of the anchoring element, the installation depth, the dispenser being used, and the number of anchoring points.

Calculation results can be saved in the application's memory or sent via email or messenger to colleagues or customers. A direct order request is also supported.



Install UTECH Volume calculator now!

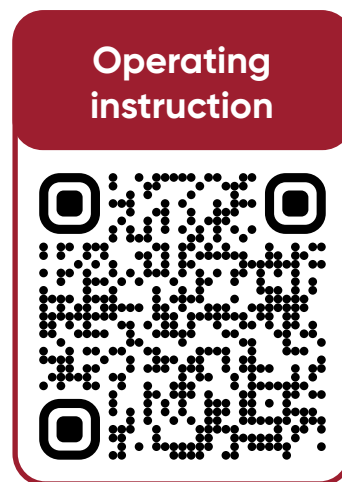


TECHNICAL DATA

HITRE 500 Design resistance

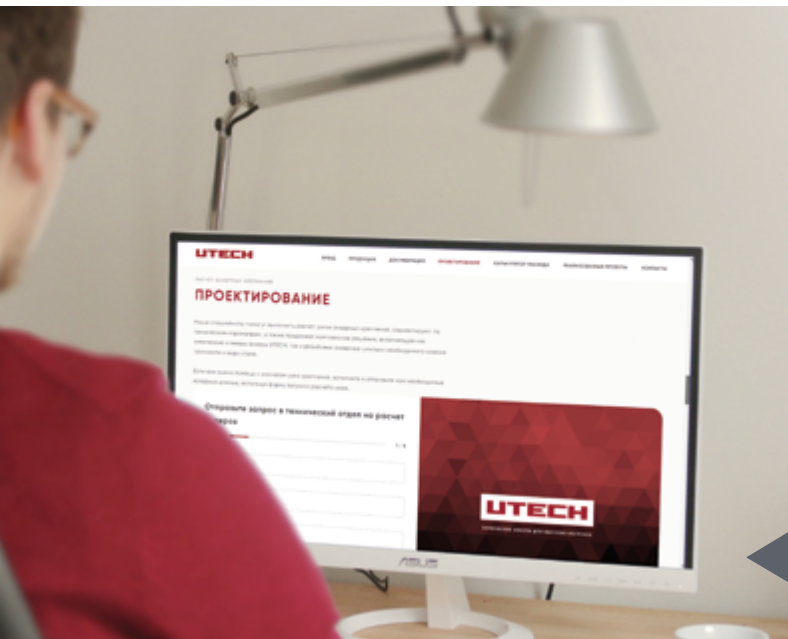
Parameter		M8	M10	M12	M16	M20	M24	M27	M30	M36
Eff. anchorage depth	mm	80	90	110	125	170	210	240	290	340
Base material thickness	mm	110	120	140	161	214	264	300	360	420
Tension (strength class 5.8) for non-cracked concrete	kN	12.2	19.3	28.1	45.3	71.8	98.6	120.5	133.3	169.3
Tension (strength class 8.8) for non-cracked concrete	kN	19.5	27.7	37.4	45.3	71.8	98.6	120.5	133.3	169.3
Tension (strength class 5.8 and 8.8) for cracked concrete	kN	10.4	14.3	21.0	27.2	39.9	60.1	81.4	88.0	113.2
Tension (strength class 5.8) for cracked and non-cracked concrete	kN	7.4	11.6	16.9	31.4	49.0	70.6	91.8	112.2	163.4
Tension (strength class 8.8) for cracked and non-cracked concrete	kN	11.7	18.6	27.0	50.2	78.4	113.0	146.9	179.5	261.4

The data are calculated according to SP 513.1325800.2022. The calculated values refer to a single anchor installation, a dry hole, B25 concrete, and a temperature range between $-60\text{ }^{\circ}\text{C}$ and $+42\text{ }^{\circ}\text{C}$, unaffected by spacing and edge distances. Multi-anchor installation requires additional calculations according to SP 513.1325800.2022. Detailed technical and installation data can be found in the Fasteners Technical Manual.



Detailed technical data, including technical passports for calculations according to SP 513.1325800.2022 "Anchor Connections to Concrete: Design Rules" and SP 63.13330.2018 "Concrete and Reinforced Concrete Structures: General Provisions" are available for the HITRE 500 chemical anchor.

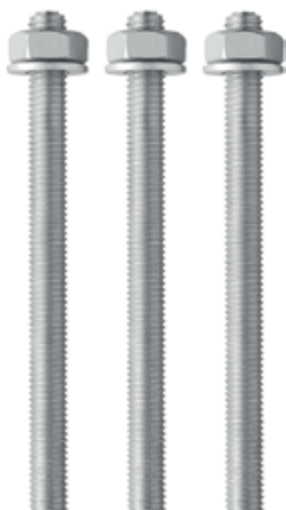
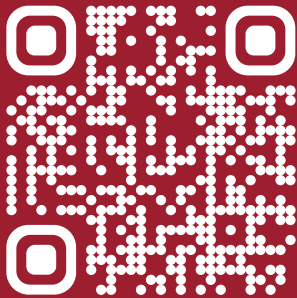
ENGINEERING SUPPORT



Anchor fastening calculation



On-site testing



We can supply threaded rods for specific size and project

STORY OF SUCCESS

Successful experience in deliveries for residential, road and commercial construction projects.



Photo: VIS Group

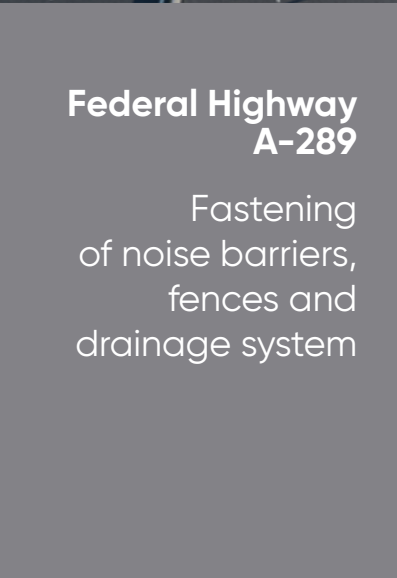
4th bridge across the Ob River, Novosibirsk

Fastening of reinforced concrete barrier fences



Sirius Concert and Theatre Center

Fastening of brackets for stained glass systems



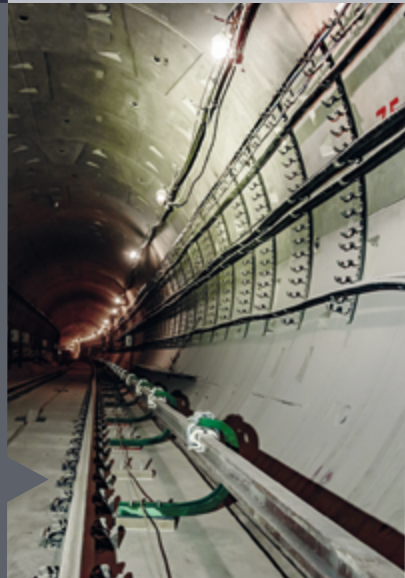
Federal Highway A-289

Fastening of noise barriers, fences and drainage system



Subway

Fastening of third rail



Piramida Shopping Mall, Volgograd

Fastening of metal framework for sandwich panels



Additional railway tracks, Moscow-Alabushevo section

Fastening of noise barriers

STORY OF SUCCESS

Successful experience in deliveries for industrial construction sites.



**Atomic Reactors
Research Institute,
Dimitrovgrad
(Rosatom State
Atomic Energy
Corporation)**

Fastening
of process
equipment
in the turbine shop



**Omsk Oil Refinery
(Gazprom Neft
PJSC)**

Fastening
of pumping
equipment



**Nevinnomyssk
Azot (MCC
EuroChem JSC)**

Fastening
of column
base plates



**Taman Cargo port
(OTEKO JSC)**

Fastening
of post-installed
rebar



Ilsky Oil Refinery

Fastening
of post-installed
rebar



**Nizhnekamsk-
Neftekhim PJSC
(Sibur holding)**


Fastening
of production
equipment

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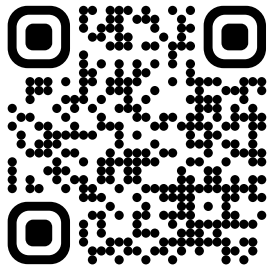
CHEMICAL ANCHORS FOR HIGH LOAD APPLICATIONS

You can order anchors with fast delivery to your site:

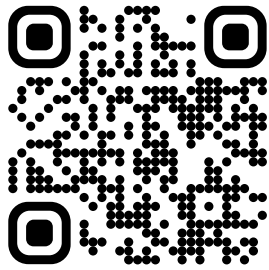
 order@utech.pro

 +7 (495) 775-68-42

web page



mobile app



Technical data, certificates, convenient tools for calculations, on-site tests and much more!

With our UTECH calculator, you can quickly calculate the quantity of chemical anchors needed for the required volume of fastening points. Give it a try! It's convenient!

Follow us on social media

Subscribe to get the latest news about UTECH anchors and other advanced construction technologies.

TELEGRAM



VKONTAKTE

