# TEDUN GROUP

## ANCHOR BOLT

### RESEARCH, DEVELOP, TEST AND PRODUCTION

**China Office:** 13-1, Industrial City East District, Yongnian District, Handan City, Hebei Province

**HanDan Office:** 2303 Sunshine Building, Congtai District, Handan City, Hebei Province

TEDUN 特盾 FASTENERS

# CONTENT

TEDUN 特盾 FASTENERS

# Striving for Building Safety

## 01 PART ONE.

# ABOUT US

# 01 ABOUT US

**Tedun** established in Handan, Hebei **in 2015**, specializing in research, development, technical improvement and manufacturing of building anchor bolts for **10 Years**. As we has grown over the years, Tedun owns **10,000m2** manufacture area and **92 sets** of advanced machinery to strictly control production precision.

Therefore, our annual capacity can reach to **1 Million** sets supplying to commercial construction, facade, glass & aluminium, carpentry and civil & infrastructure.

Tedun is compliant with local standard. Products we supply are certified with **ETA, Hoklas,** technical specifications.

Tedun takes **construction safety and clients' need as priority** and as development cornerstone by providing high-quality products and navigating market's trend. We believe in our products can deliver value to your projects. And it won't be changing in the future.

# 01 ABOUT US

TEDUN FASTENERS 特盾

## TEDUN Factory

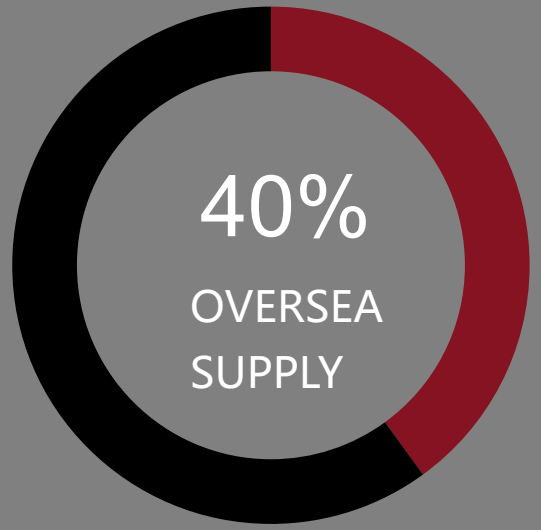


## Warehouse

## Machinery

## Test Center

# 01 ABOUT US




10+

Oversea Cases

*Russia, Phillipines, Australia*

TWA-WEDGE ANCHOR

200,000+

THK-UNDERCUTTING ANCHOR

150,000+

TCS-CONCRETE SCREW

350,000+

Others

# 01 ABOUT US

## 3 Certification: ETA, HOKLAS, CE

## 70+ Patent

## 100 years Design life


## Seismic C1, C2

# 01 ABOUT US

**Oversea Exhibition:** German, Saudi Arabia, Dubai, Korea, Vietnam, Russia, Thailand....


# 01 ABOUT US

**Oversea Exhibition:** German, Saudi Arabia, Dubai, Korea, Vietnam, Russia, Thailand....

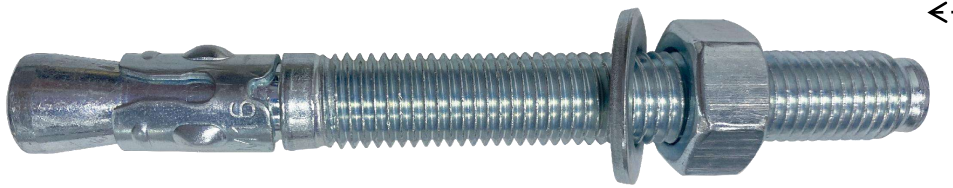


TEDUN 特盾 FASTENERS

# 02 PART TWO.

# PRODUCT

# 02 PRODUCT



TWA - Wedge Anchor

TCS - Concrete Screw

THK - Mechanical Undercut Anchor

TDZ-T - Special Inverted Cone Anchor Bolt


TCA - Chemical Anchor

TC - Channel

# TVA EASF - Vinyl Ester Adhesive


## Advantage

- ETA
- 50 years design life
- Seismic C1

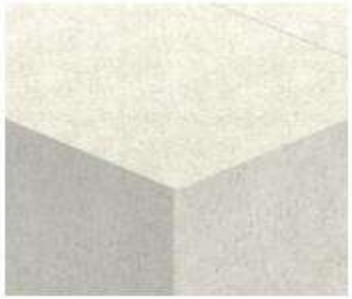
ETA

Seismic C1

## Suitable for below building materials

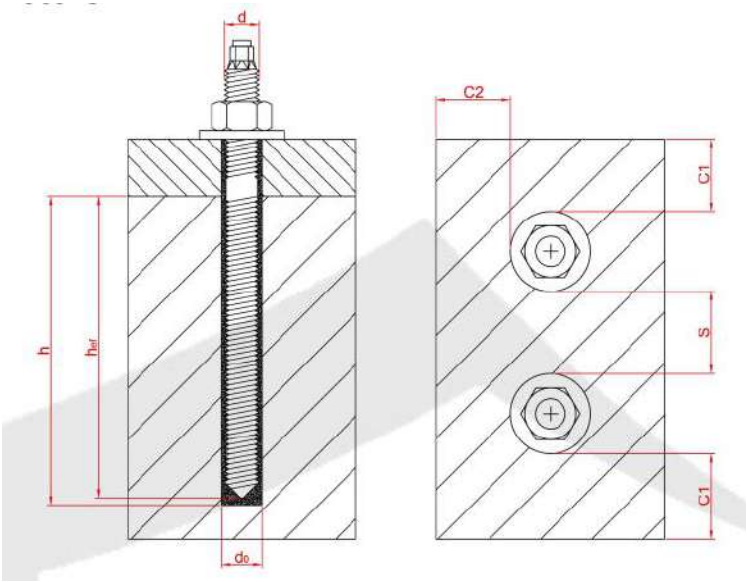
Cracked concrete

Uncracked concrete



Solid sand-lime brick

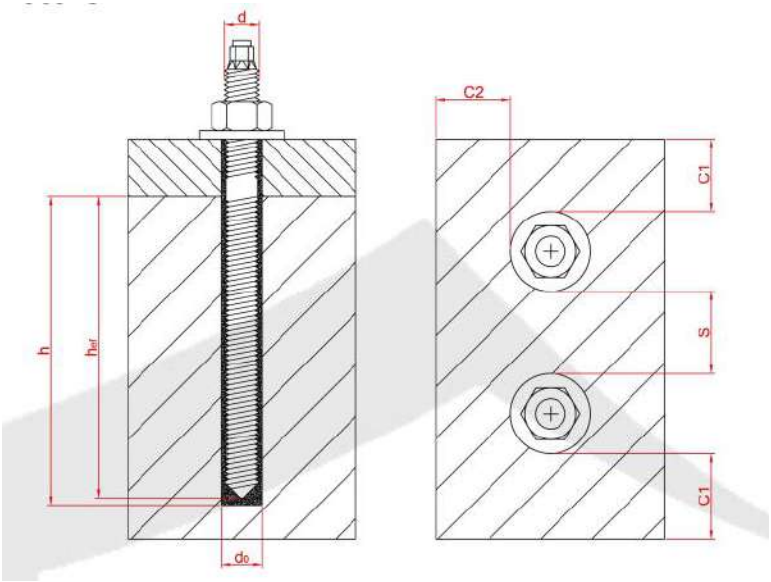
# TVA EASF - Vinyl Ester Adhesive




## Technical Data and Performance

| Installation parameter - Threaded Rod | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Anchor size | | | M8 | M10 | M12 | M16 | M20 | M24 | M27 | M30 |
| Diameter of anchor | d | mm | 8 | 10 | 12 | 16 | 20 | 24 | 27 | 30 |
| Nominal diameter of drill bit | $d_0$ | mm | 10 | 12 | 14 | 18 | 24 | 28 | 32 | 35 |
| Diameter of clearance holein the fixture (≤) | $d_f$ | mm | 9 | 12 | 14 | 18 | 22 | 26 | 30 | 33 |
| Diameter of steel brush | $d_b$ | mm | 12 | 14 | 16 | 20 | 26 | 30 | 34 | 37 |
| Minimum effective anchorage depth | $h_{ef,min}$ | mm | 60 | 60 | 70 | 80 | 90 | 96 | 108 | 120 |
| Effective anchorage depth | $h_{ef}$ | mm | 80 | 90 | 110 | 125 | 170 | 210 | 250 | 280 |
| Maximum effective anchorage depth | $h_{ef,max}$ | mm | 160 | 200 | 240 | 320 | 400 | 480 | 540 | 600 |
| Minimum thickness of the concrete membe | $h_{min}$ | mm | $h_{ef}$+30mm≥100mm | | | $h_{ef}$+2d0 | | | | |
| Nominal torque moment | $T_{inst}$ | Nm | 10 | 20 | 40 | 80 | 120 | 160 | 180 | 200 |
| Minimum spacing(5*d) | $S_{min}$ | mm | 40 | 50 | 60 | 80 | 100 | 120 | 135 | 150 |
| Spacing | $S_{cr,N}$ | mm | 184 | 252 | 304 | 376 | 506 | 582 | 624 | 658 |
| Minimum edge distance (5*d) | $C_{min}$ | mm | 40 | 50 | 60 | 80 | 100 | 120 | 135 | 150 |
| Edge distance | $C_{cr,N}$ | mm | 92 | 126 | 152 | 188 | 253 | 291 | 312 | 329 |

# TVA EASF - Vinyl Ester Adhesive




## Concrete and non-concrete Performance

| Characteristic bond resistance in non-cracked concrete C20/25 | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Material | Size | | M8 | M10 | M12 | M16 | M20 | M24 | M27 | M30 | M33 | M36 | M39 |
| Tension | 5.8 | $N_{Rk}$ | kN | 18.3 | 29.0 | 42.2 | 68.8 | 109.0 | 149.7 | 182.9 | 218.2 | 255.6 | 294.9 | 336.0 |
| | 8.8 | $N_{Rk}$ | kN | 29.3 | 42.0 | 56.8 | 68.8 | 109.0 | 149.7 | 182.9 | 218.2 | 255.6 | 294.9 | 336.0 |
| | A4 | $N_{Rk}$ | kN | 25.6 | 40.6 | 56.8 | 68.8 | 109.0 | 149.7 | 182.9 | 218.2 | 255.6 | 294.9 | 336.0 |
| | HCR | $N_{Rk}$ | kN | 29.3 | 42.0 | 56.8 | 68.8 | 109.0 | 149.7 | 182.9 | 218.2 | 255.6 | 294.9 | 336.0 |
| Shear | 5.8 | $V_{Rk}$ | kN | 11.0 | 17.4 | 25.3 | 47.1 | 73.5 | 105.9 | 137.7 | 168.3 | 208.2 | 245.1 | 292.8 |
| | 8.8 | $V_{Rk}$ | kN | 14.6 | 23.2 | 33.7 | 62.8 | 98.0 | 141.2 | 183.6 | 224.4 | 277.6 | 326.8 | 390.4 |
| | A4 | $V_{Rk}$ | kN | 12.8 | 20.3 | 29.5 | 55.0 | 85.8 | 123.6 | 114.8 | 140.3 | 173.5 | 204.3 | 244.0 |
| | HCR | $V_{Rk}$ | kN | 14.6 | 23.2 | 33.7 | 62.8 | 98.0 | 123.6 | 160.7 | 196.4 | 173.5 | 204.3 | 244.0 |
| Characteristic bond resistance in cracked concrete C20/25 | | | | | | | | | | | | | | |
| Tension | 5.8 | $N_{Rk}$ | kN | 15.1 | 25.4 | 39.7 | 48.1 | 76.3 | 104.8 | 128.0 | 152.8 | - | - | - |
| | 8.8 | $N_{Rk}$ | kN | 15.1 | 25.4 | 39.7 | 48.1 | 76.3 | 104.8 | 128.0 | 152.8 | - | - | - |
| | A4 | $N_{Rk}$ | kN | 15.1 | 25.4 | 39.7 | 48.1 | 76.3 | 104.8 | 128.0 | 152.8 | - | - | - |
| | HCR | $N_{Rk}$ | kN | 15.1 | 25.4 | 39.7 | 48.1 | 76.3 | 104.8 | 128.0 | 152.8 | - | - | - |
| Shear | 5.8 | $V_{Rk}$ | kN | 11.0 | 17.4 | 25.3 | 47.1 | 73.5 | 105.9 | 137.7 | 168.8 | - | - | - |
| | 8.8 | $V_{Rk}$ | kN | 14.6 | 23.2 | 33.7 | 62.8 | 98.0 | 141.2 | 183.6 | 224.4 | - | - | - |
| | A4 | $V_{Rk}$ | kN | 12.8 | 20.3 | 29.5 | 55.0 | 85.8 | 123.6 | 114.8 | 140.3 | - | - | - |
| | HCR | $V_{Rk}$ | kN | 14.6 | 23.2 | 33.7 | 62.8 | 98.0 | 123.6 | 160.7 | 196.4 | - | - | - |

# TEP 1000 - Epoxy Anchoring Adhesive





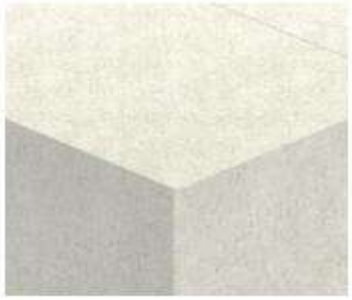
## Advantage

- ETA
- 100 years design life
- Seismic C1 + C2

## Suitable for below building materials

Cracked concrete

Uncracked concrete

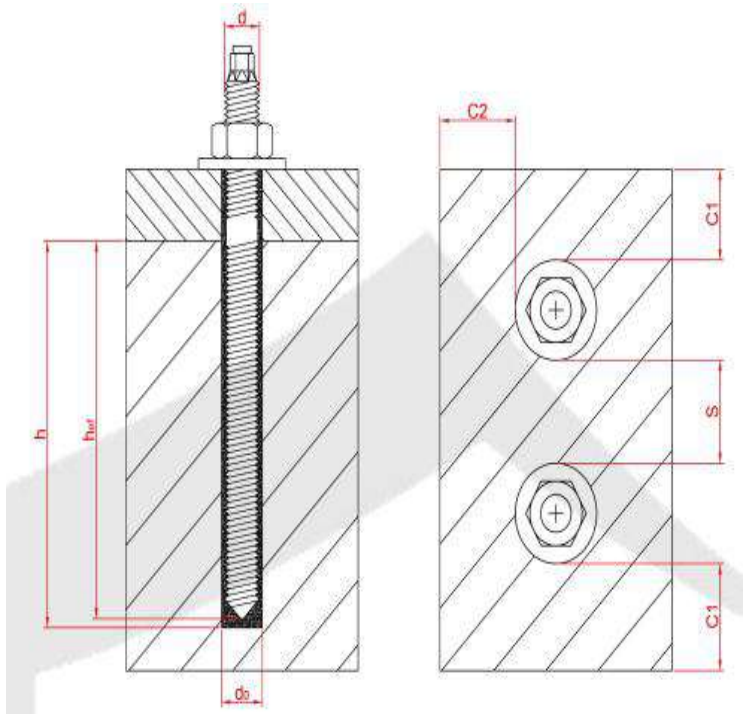


Solid sand-lime brick

ETA

Seismic C1+C2

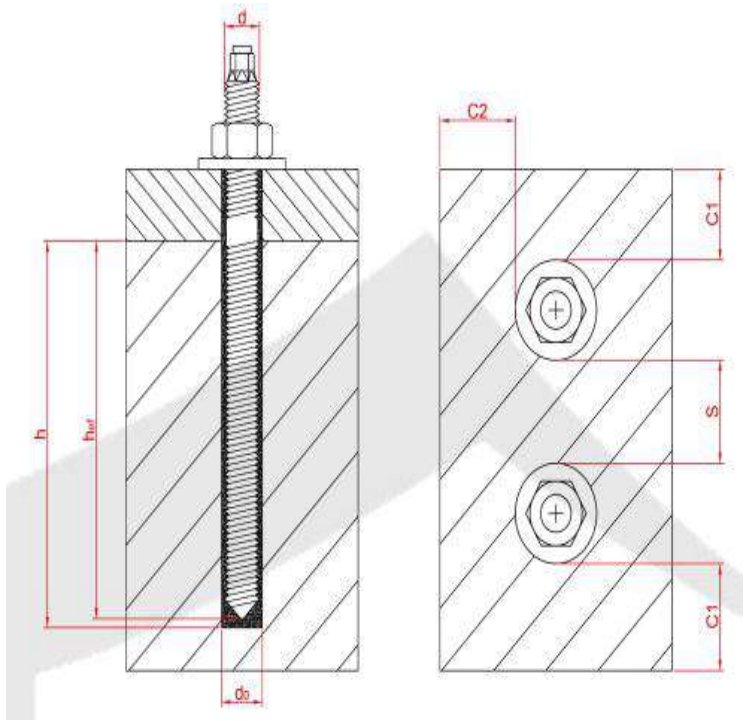
# TEP 1000 - Epoxy Anchoring Adhesive




## Technical Data and Performance

| Installation parameter - Threaded Rod | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Anchor size | | | M8 | M10 | M12 | M16 | M20 | M24 | M27 | M30 | M33 | M36 | M39 |
| Diameter of anchor | d | mm | 8 | 10 | 12 | 16 | 20 | 24 | 27 | 30 | 33 | 36 | 39 |
| Nominal diameter of drill bit | $d_0$ | mm | 10 | 12 | 14 | 18 | 22 | 28 | 30 | 35 | 37 | 40 | 42 |
| Diameter of clearance holein the fixture (≤) | $d_f$ | mm | 9 | 12 | 14 | 18 | 22 | 26 | 30 | 33 | 36 | 39 | 42 |
| Diameter of steel brush | $d_b$ | mm | 12 | 14 | 16 | 20 | 24 | 30 | 32 | 37 | 40 | 44 | 47 |
| Minimum effective anchorage depth | $h_{ef,min}$ | mm | 60 | 60 | 70 | 80 | 90 | 96 | 108 | 120 | 132 | 144 | 156 |
| Effective anchorage depth | $h_{ef}$ | mm | 80 | 90 | 110 | 125 | 170 | 210 | 240 | 270 | 300 | 330 | 360 |
| Maximum effective anchorage depth | $h_{ef,max}$ | mm | 160 | 200 | 240 | 320 | 400 | 480 | 540 | 600 | 660 | 720 | 780 |
| Minimum thickness of the concrete member | $h_{min}$ | mm | $h_{ef}$+30mm≥100 mm | | | $h_{ef}$+2$d_0$ | | | | | | | |
| Nominal torque moment | $T_{inst}$ | Nm | 10 | 20 | 40 | 80 | 150 | 200 | 270 | 300 | 330 | 360 | 390 |
| Minimum spacing | $S_{min}$ | mm | 40 | 50 | 60 | 75 | 90 | 115 | 120 | 140 | 165 | 180 | 195 |
| Minimum edge distance | $C_{min}$ | mm | 40 | 45 | 45 | 50 | 55 | 60 | 75 | 80 | 165 | 180 | 195 |

# TEP 1000 - Epoxy Anchoring Adhesive




## Concrete and non-concrete Performance

| Characteristic bond resistance in non-cracked concrete C20/25 | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Material | Size | | M8 | M10 | M12 | M16 | M20 | M24 | M27 | M30 | M33 | M36 | M39 |
| Tension | 5.8 | $N_{Rk}$ | kN | 18.3 | 29.0 | 42.2 | 68.8 | 109.0 | 149.7 | 182.9 | 218.2 | 255.6 | 294.9 | 336.0 |
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| | A4 | $N_{Rk}$ | kN | 25.6 | 40.6 | 56.8 | 68.8 | 109.0 | 149.7 | 182.9 | 218.2 | 255.6 | 294.9 | 336.0 |
| | HCR | $N_{Rk}$ | kN | 29.3 | 42.0 | 56.8 | 68.8 | 109.0 | 149.7 | 182.9 | 218.2 | 255.6 | 294.9 | 336.0 |
| Shear | 5.8 | $V_{Rk}$ | kN | 11.0 | 17.4 | 25.3 | 47.1 | 73.5 | 105.9 | 137.7 | 168.3 | 208.2 | 245.1 | 292.8 |
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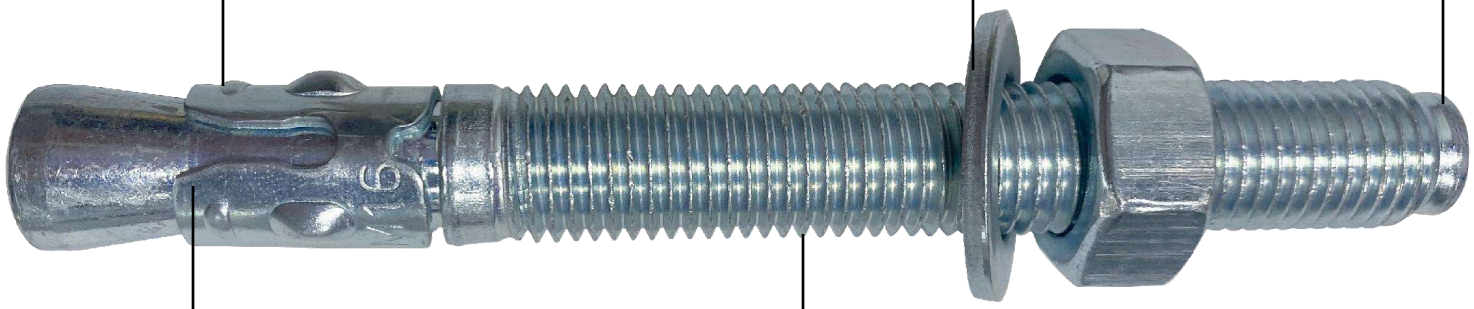
| | HCR | $V_{Rk}$ | kN | 14.6 | 23.2 | 33.7 | 62.8 | 98.0 | 123.6 | 160.7 | 196.4 | 173.5 | 204.3 | 244.0 |
| Characteristic bond resistance in cracked concrete C20/25 | | | | | | | | | | | | | | |
| Tension | 5.8 | $N_{Rk}$ | kN | 15.1 | 25.4 | 39.7 | 48.1 | 76.3 | 104.8 | 128.0 | 152.8 | - | - | - |
| | 8.8 | $N_{Rk}$ | kN | 15.1 | 25.4 | 39.7 | 48.1 | 76.3 | 104.8 | 128.0 | 152.8 | - | - | - |
| | A4 | $N_{Rk}$ | kN | 15.1 | 25.4 | 39.7 | 48.1 | 76.3 | 104.8 | 128.0 | 152.8 | - | - | - |
| | HCR | $N_{Rk}$ | kN | 15.1 | 25.4 | 39.7 | 48.1 | 76.3 | 104.8 | 128.0 | 152.8 | - | - | - |
| Shear | 5.8 | $V_{Rk}$ | kN | 11.0 | 17.4 | 25.3 | 47.1 | 73.5 | 105.9 | 137.7 | 168.8 | - | - | - |
| | 8.8 | $V_{Rk}$ | kN | 14.6 | 23.2 | 33.7 | 62.8 | 98.0 | 141.2 | 183.6 | 224.4 | - | - | - |
| | A4 | $V_{Rk}$ | kN | 12.8 | 20.3 | 29.5 | 55.0 | 85.8 | 123.6 | 114.8 | 140.3 | - | - | - |
| | HCR | $V_{Rk}$ | kN | 14.6 | 23.2 | 33.7 | 62.8 | 98.0 | 123.6 | 160.7 | 196.4 | - | - | - |

# TWA - Wedge Anchor

Easier installation: the interaction of cone and expansion clip increases load-bearing capacity in suitation of minium edge distance and axial spacing.

Large Washer

The tensile strengths increase decisively. Protect thread properly by knocking on here.



The distinctive edge holds the expansion clip in position, ensuring safe installation.

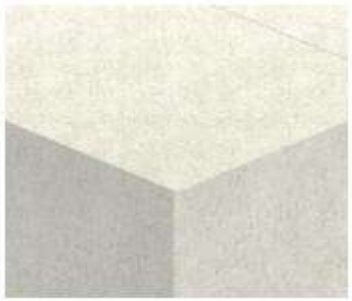
Long thread suitable for spacing installation and for adjustment.

**Pre-positioned installation, Push-through installation**

## Suitable for below building materials

Cracked concrete

Uncracked concrete

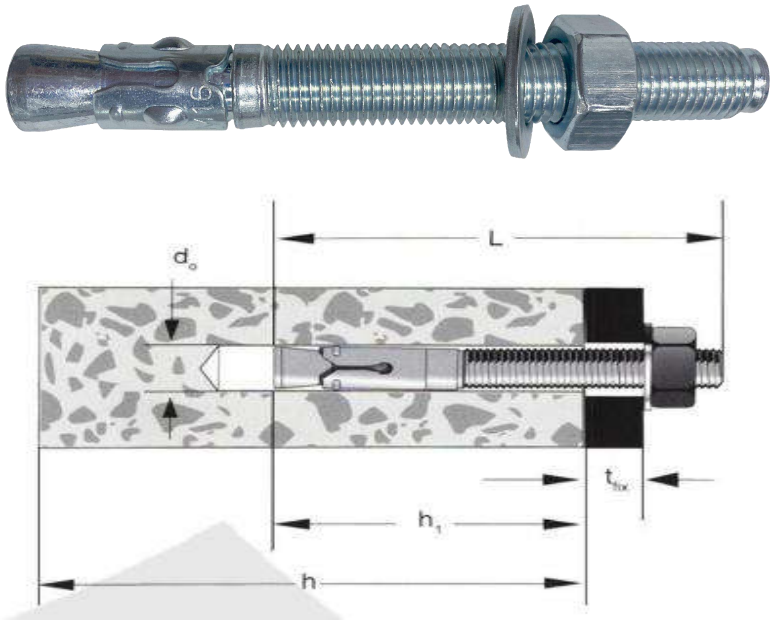


Solid sand-lime brick

## Advantage

- Stainless steel and galvanised steel
- ETA confirms TWA for dynamic loads for diameters M12-M16.
- Expansion force is negligible, suitable for minium edge distance.
- Mechanical lock, achieving installation flexibility and high dynamic load.

# TWA - Wedge Anchor

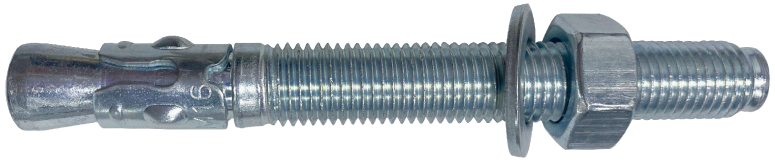



## Technical Data and Performance

| Item | Drill diameter do(mm) | Drill hole depth h1(mm) | Embedment depth with respective usable length tfix(mm) | Installation force (N.m) | ETA |
|---|---|---|---|---|---|
| M8*90 | 8 | 65 | 15 | 15 | |
| M10*100 | 10 | 75 | 15 | 30 | |
| M12*120 | 12 | 95 | 15 | 50 | |
| M16*140 | 16 | 110 | 20 | 100 | |
| M20*180 | 20 | 130 | 25 | 200 | |

| Test Item | M8 | M10 | M12 | M16 | M20 |
|---|---|---|---|---|---|
| C30 un-cracked concrete tensile strength (Kn) | 5.0 | 8.5 | 13.1 | 20.3 | 33.5 |
| C30 un-cracked concrete shear strength (Kn) | 7.8 | 10.5 | 14.5 | 27.8 | 45.5 |
| C30 cracked concrete tensile strength (Kn) | 2.8 | 5.8 | 8.0 | 12.3 | 20.2 |
| C30 cracked concrete shear strength (Kn) | 7.8 | 10.5 | 14.5 | 27.8 | 45.5 |

# TWA - Wedge Anchor



## Application

Equipment

Pipe

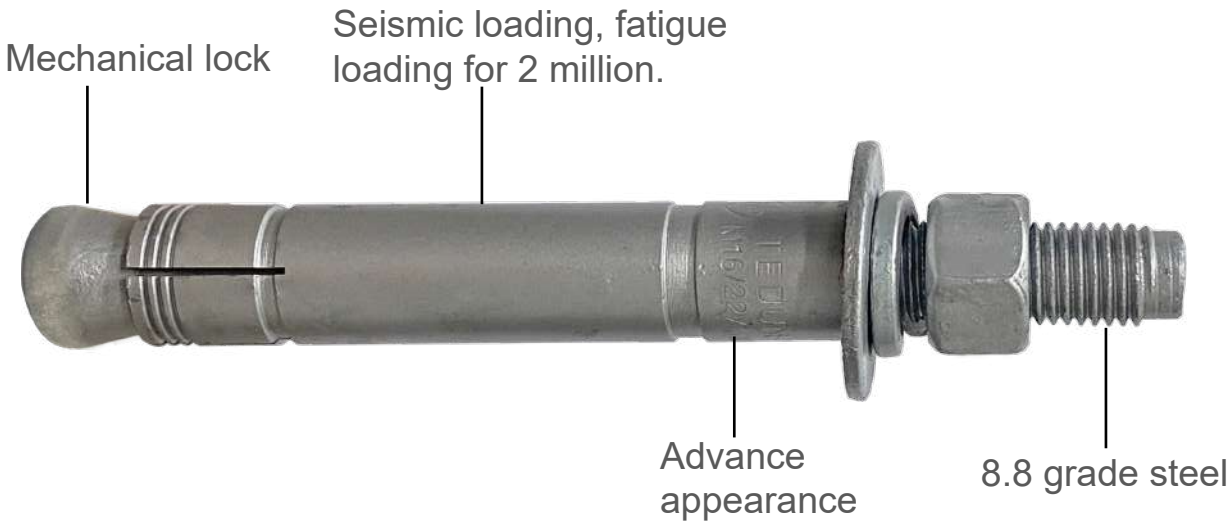
Elevator

Facade

Window & Door

Balustrade

# THK - Mechanical Undercut Anchor




ETA

Seismic C1

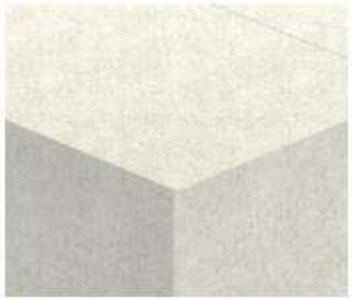
## Advantage

- Stainless steel and galvanised steel
- ETA confirms THK for dynamic loads for diameters M12-M16.
- Expansion force is negligible, suitable for minium edge distance.
- Mechanical lock, achieving installation flexibility and high dynamic load.

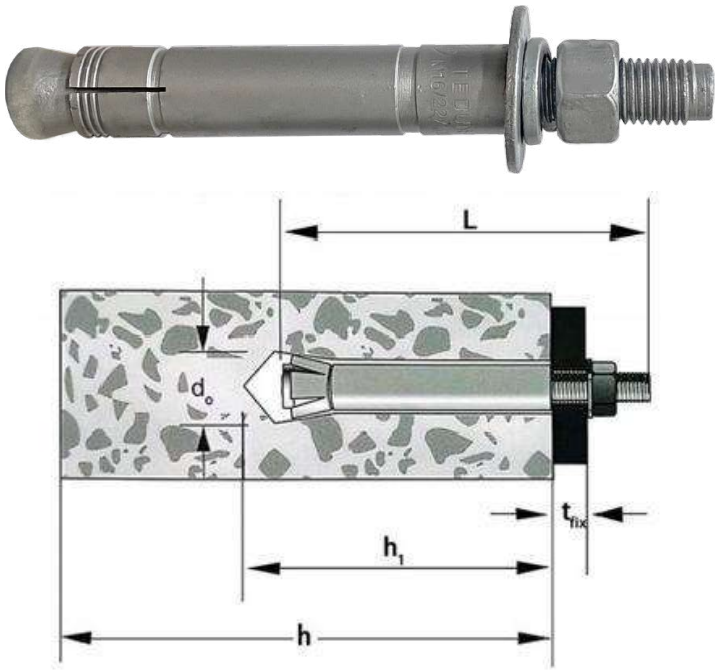
## Suitable for below building materials


Cracked concrete


Uncracked concrete


Solid sand-lime brick

# THK - Mechanical Undercut Anchor




## Technical Data and Performance

| Model | Drill diameter do(mm) | Drill hole depth hi(mm) | Effective anchoring depth ho(mm) | Maximum anchorage thickness tix(mm) | Ttotal length of anchor bolts L(mm) | Screw specifications | Anchor aperturer(mm) | | Min. spacing between bolts min(mm) | Min. substrate thickness h(mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Prefabricated | Transmission | | |
| THK14*40 M10/25 | 14 | 45 | 40 | 25 | 80 | M10 | 12 | 16 | 40 | 80 |
| THK16*60 M10/25 | 16 | 65 | 60 | 25 | 100 | M10 | 12 | 16 | 60 | 100 |
| THK18*60 M12/35 | 18 | 70 | 60 | 35 | 110 | M12 | 14 | 20 | 60 | 100 |
| THK18*80 M12/35 | 18 | 90 | 80 | 35 | 130 | M12 | 14 | 20 | 80 | 120 |
| THK18*100 M12/35 | 18 | 110 | 100 | 35 | 150 | M12 | 14 | 20 | 100 | 150 |
| THK22*100 M16/40 | 22 | 110 | 100 | 40 | 160 | M16 | 18 | 24 | 100 | 150 |
| THK22*125 M16/45 | 22 | 130 | 125 | 45 | 190 | M16 | 18 | 24 | 120 | 170 |
| THK28*160 M20/75 | 28 | 180 | 160 | 75 | 260 | M20 | 24 | 32 | 160 | 230 |
| THK28*200 M20/75 | 28 | 220 | 200 | 75 | 300 | M20 | 24 | 32 | 200 | 290 |

# THK - Mechanical Undercut Anchor

## Application

Pipe Gallery

Metro

Photovoltaic

Nuclear Power

Facade

Steelwork

# TDZ-T - Special Inverted Cone Anchor Bolt

The unique inverted cone structure ensures more uniform load distribution.

Manufactured using 40Cr (chromium) material, significantly enhancing the product's strength and toughness.

Specially engineered inverted cone threaded rod designed for specialized applications.


ETA

Seismic C1

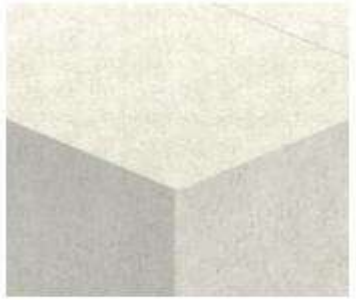
## Advantage

- ETA
- 50 years design life
- Seismic C1

## Suitable for below building materials

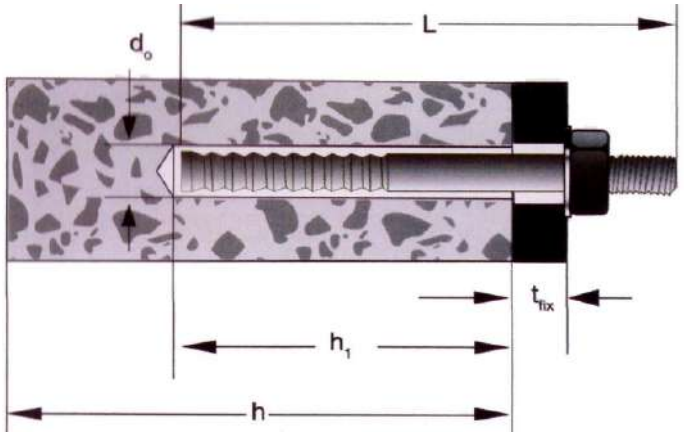
Cracked concrete

Uncracked concrete



Solid sand-lime brick

# TDZ-T - Special Inverted Cone Anchor Bolt




## Technical Data and Performance

| Item | Drill diameter do(mm) | Drill hole depth h1(mm) | Effective anchoring depth ho(mm) | Embedment depth with respective usable length tfix(mm) | Ttotal length of anchor bolts L(mm) | Min. substrate thickness h(mm) |
|---|---|---|---|---|---|---|
| TDZ-T M8*75/15 | 10 | 80 | 75 | 15 | 110 | 140 |
| TDZ-T M10*85/20 | 12 | 90 | 85 | 20 | 130 | 160 |
| TDZ-T M12*105/25 | 14 | 110 | 105 | 25 | 160 | 210 |
| TDZ-T M16*120/35 | 18 | 125 | 120 | 35 | 190 | 210 |
| TDZ-T M20*165/65 | 25 | 170 | 165 | 65 | 260 | 340 |
| TDZ-T M24*205/65 | 28 | 210 | 205 | 65 | 300 | 370 |
| TDZ-T M30*265/70 | 35 | 270 | 265 | 70 | 380 | 540 |

# 02 PRODUCT

## TDZ-T - Special Inverted Cone Anchor Bolt

| Test Item | | M8 | M10 | M12 | M16 | M20 | M24 | M30 |
|---|---|---|---|---|---|---|---|---|
| C30 un-cracked concrete tensile strength (kn) | 5.8 | 10.3 | 13.8 | 19.8 | 30.9 | 52.4 | 87.5 | 133.6 |
| | 8.8 | 12.4 | 16.8 | 22.9 | 34.5 | 58.8 | 87.5 | 133.6 |
| | A2-70 | 11.8 | 15.3 | 20.8 | 32.3 | 55.8 | 87.5 | 133.6 |
| | A2-80 | 12.4 | 16.8 | 22.9 | 34.5 | 58.8 | 87.5 | 133.6 |
| C30 un-cracked concrete shear strength (kn) | 5.8 | 7.3 | 11.5 | 15.5 | 29.5 | 47.5 | 68.5 | 125.3 |
| | 8.8 | 9.0 | 14.1 | 20.5 | 37.3 | 59.2 | 86.0 | 139.6 |
| | A2-70 | 8.3 | 13.1 | 19.0 | 32.3 | 55.4 | 82.0 | 129.5 |
| | A2-80 | 9.0 | 14.1 | 20.5 | 37.3 | 59.2 | 86.0 | 139.6 |
| C30 cracked concrete tensile strength (kn) | 5.8 | 8.5 | 13.8 | 20.5 | 24.0 | 48.2 | 52.5 | - - |
| | 8.8 | | | | | | | |
| | A2-70 | | | | | | | |
| | A2-80 | | | | | | | |
| C30 cracked concrete shear strength (kn) | 5.8 | 7.3 | 11.5 | 15.5 | 29.8 | 47.5 | 68.5 | 125.3 |
| | 8.8 | 9.0 | 14.1 | 20.5 | 37.3 | 59.2 | 86.0 | 139.6 |
| | A2-70 | 8.3 | 13.1 | 19.0 | 29.5 | 55.2 | 82.0 | 129.5 |
| | A2-80 | 9.0 | 14.1 | 20.5 | 37.3 | 59.2 | 86.0 | 139.6 |

# TDZ-T - Special Inverted Cone Anchor Bolt

## Application

Equipment

Pipe

Metro

Facade

Steelwork

Photovoltaic

# TCS - Concrete Screw

Designed cutting edge is efficient for installation.

Thread deeply installed in concrete which can bear higher dynamic loading.

Undersidel strip deeply lock in concrete

**Push-through installation**

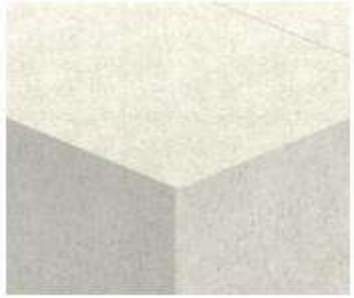
## Advantage

- Stainless steel and galvanised steel
- ETA
- Efficient for install, save labor cost.
- Suitable for min. edge distance and spacing distance.

## Suitable for below building materials

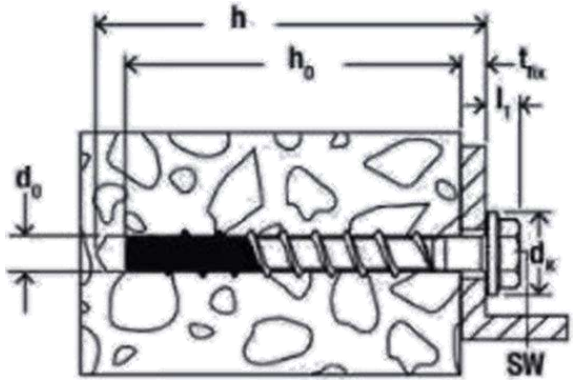
Cracked concrete

Uncracked concrete



Solid sand-lime brick

# TCS - Concrete Screw



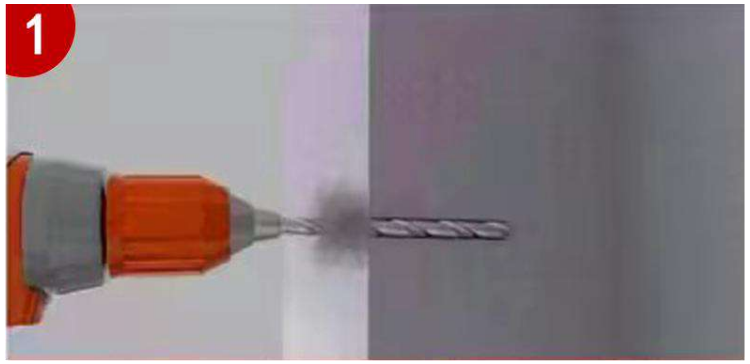

## Technical Data and Performance

| Item | Drill diameter do(mm) | Drill hole depth h1(mm) | Embedment depth with respective usable length tfix(mm) | Installation force (N.m) | ETA |
|---|---|---|---|---|---|
| M8*80 | 8 | 90 | 10 | ≤20 | |
| M10*100 | 10 | 110 | 15 | ≤40 | |
| M12*110 | 12 | 120 | 20 | ≤60 | |
| M14*130 | 140 | 140 | 25 | ≤80 | |

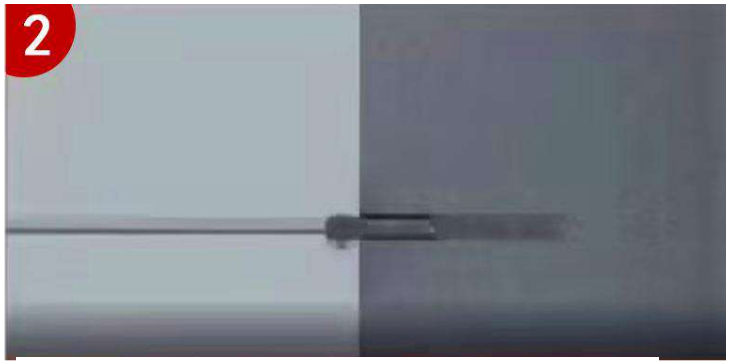
| 产品型号 | M8 | M10 | M12 | M14 |
|---|---|---|---|---|
| C30 un-cracked concrete tensile strength（Kn） | 5.5 | 12.0 | 17.1 | 21.3 |
| C30 un-cracked concrete shear strength（Kn） | 8.0 | 15.5 | 19.5 | 29.8 |
| C30 cracked concrete tensile strength（Kn） | 4.3 | 7.8 | 12.0 | 17.3 |
| C30 cracked concrete shear strength（Kn） | 6.1 | 15.5 | 19.5 | 29.8 |

# TCS - Concrete Screw

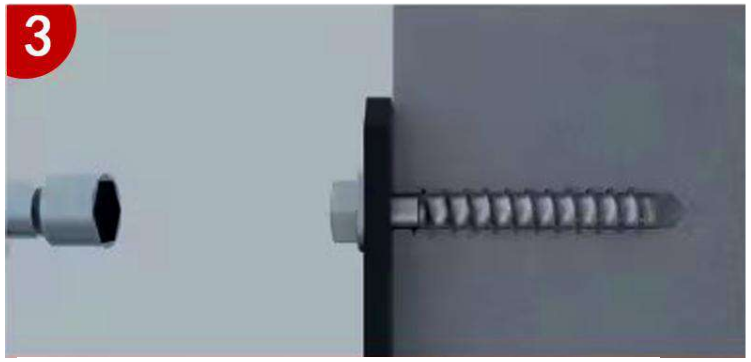
## Install Process



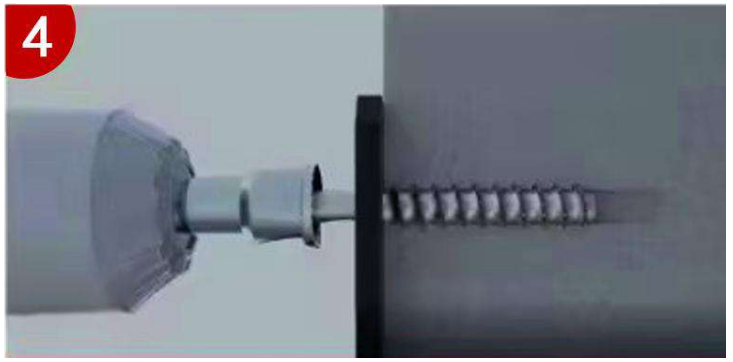

Drilling




Cleaning




Install




Adjustment

# TCA - Chemical Anchor

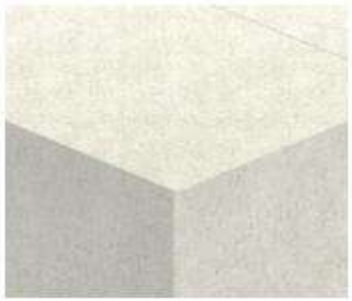

## Advantage

- Resistant to acid and alkali, heat resistance
- Expansion force is negligible, suitable for minium edge distance.
- Rapidly curing, fast install
- Environmentally friendly

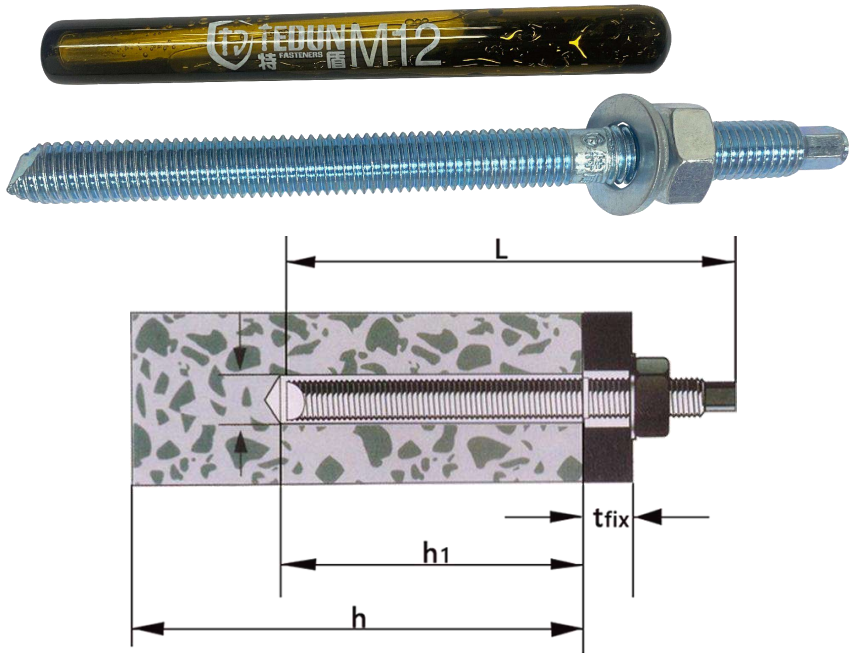
## Suitable for below building materials


Cracked concrete


Uncracked concrete


Solid sand-lime brick

# TCA - Chemical Anchor




## Technical Data and Performance

| Item | Drill diameter do(mm) | Drill hole depth h1(mm) | Embedment depth with respective usable length tfix(mm) | Length L(mm) | min. substrate thick h(mm) |
|---|---|---|---|---|---|
| M8*110 | 10 | 80 | 15 | 110 | 140 |
| M10*130 | 12 | 90 | 20 | 130 | 160 |
| M12*160 | 14 | 110 | 25 | 160 | 210 |
| M16*190 | 18 | 125 | 35 | 190 | 210 |
| M20*260 | 25 | 170 | 65 | 260 | 340 |
| M24*300 | 28 | 210 | 65 | 300 | 370 |
| M30*380 | 35 | 270 | 70 | 380 | 540 |

| Item | | M8 | M10 | M12 | M16 | M20 | M24 | M30 |
|---|---|---|---|---|---|---|---|---|
| C30 un-cracked concrete tensile strength | 5.8 grade | 9.3 | 13.8 | 19.8 | 30.9 | 52.4 | 87.5 | 113.6 |
| | 8.8 grade | 12.4 | 16.8 | 22.9 | 34.5 | 58.8 | 87.5 | 133.6 |
| | A2-70 | 11.8 | 15.3 | 20.8 | 32.3 | 55.8 | 87.5 | 133.6 |
| | A4-80 | 12.4 | 16.8 | 22.9 | 34.5 | 55.8 | 87.5 | 133.6 |
| **C30 un-cracked concrete shear strength** | 5.8 grade | 6.8 | 10.5 | 14.5 | 27.8 | 45.5 | 65.5 | 121.3 |
| | 8.8 grade | 8.3 | 13.1 | 19.0 | 32.3 | 55.2 | 82.0 | 132.6 |
| | A2-70 | 7.9 | 12.6 | 18.3 | 29.0 | 51.4 | 75.5 | 127.6 |
| | **A4-80** | **8.3** | **13.1** | **19.0** | **32.3** | **55.2** | **82.0** | **132.6** |

# TCA - Chemical Anchor


## Application

Facade

Steelwork

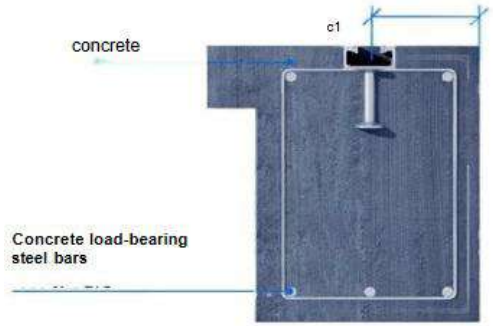
Equipment

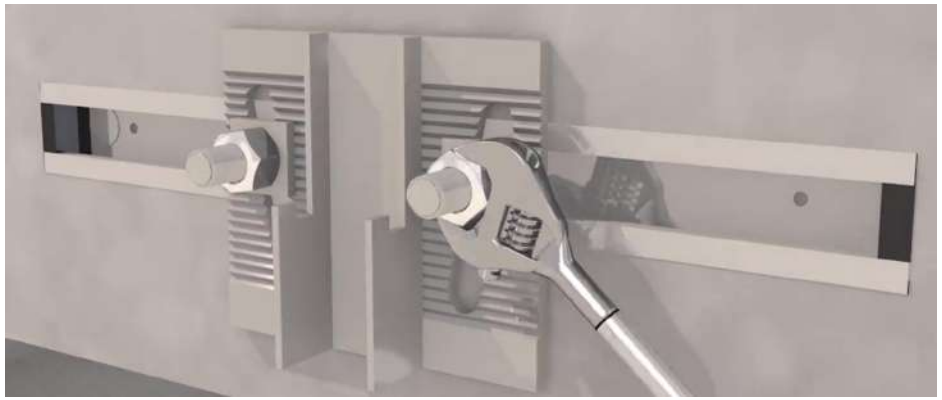
Metro Safety Door

Balustrade

Storage Rack

# TC - Channel



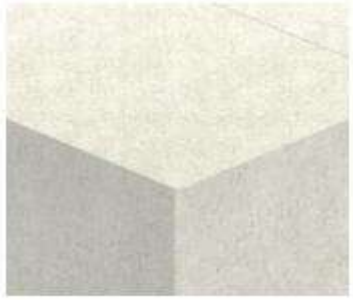
## Advantage

- Good performance of resistance to dynamic load, impact load and seismic load
- No need for on-site welding or drilling, no damage to concrete reinforcement
- Increase adjustment range of anchor pointsw which comprehensively improve construction efficiency and safety

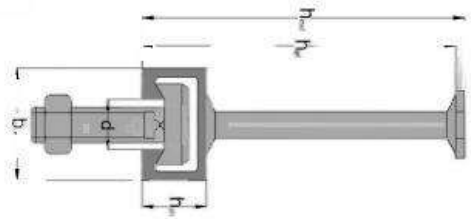
## Suitable for below building materials


Cracked concrete


Uncracked concrete


Solid sand-lime brick

# TC - Channel



## Technical Data and Performance

| Project | | Reinforcement anchor bars |
|---|---|---|
| The distance between anchor bars and the edge of component | Parallel shear force direction C1 | ≥100mm |
| | Vertical shear force direction C | ≥75mm |
| | Tensile and bending embedded parts Cand C1 | >100mm |

| Model | Width(mm) | Height(mm) | Length(mm) | Minimum burial depth (mm) | Opening d(mm) |
|---|---|---|---|---|---|
| TC30/20 | 30 | 20 | 150-400 | 80 | 14 |
| TC38/23 | 38 | 23 | 150-400 | 97 | 18 |
| TC40/22 | 40 | 22 | 150-350 | 95 | 19 |
| TC50/25 | 50 | 25 | 150-550 | 95 | 23 |
| TC52/34 | 52 | 34 | 150-550 | 155 | 23 |

# 03 PART THREE.

# PROJECT CASES

# 03 PROJECT CASES

- Wedge Anchor
- Channel

Area: Russia, QTY: 20,000 sets

# 03 PROJECT CASES

Area: The Philippines, QTY: 35,000 sets

- Chemical Anchor
- Concrete Screw

# 03 PROJECT CASES

- Chemical Anchor
- Mechanical Undercut Anchor

**Area: Russia, QTY: 30,000 sets**

# 03 PROJECT CASES

Area: Saudi Arabia , QTY: 8,000 sets

- Mechanical Undercut Anchor

# 03 PROJECT CASES

Area: Middle East, QTY: 20,000 sets

- Mechanical Undercut Anchor

# 03 PROJECT CASES

**Area: Middle East, QTY: 56,000 sets**

- Mechanical
  Undercut Anchor

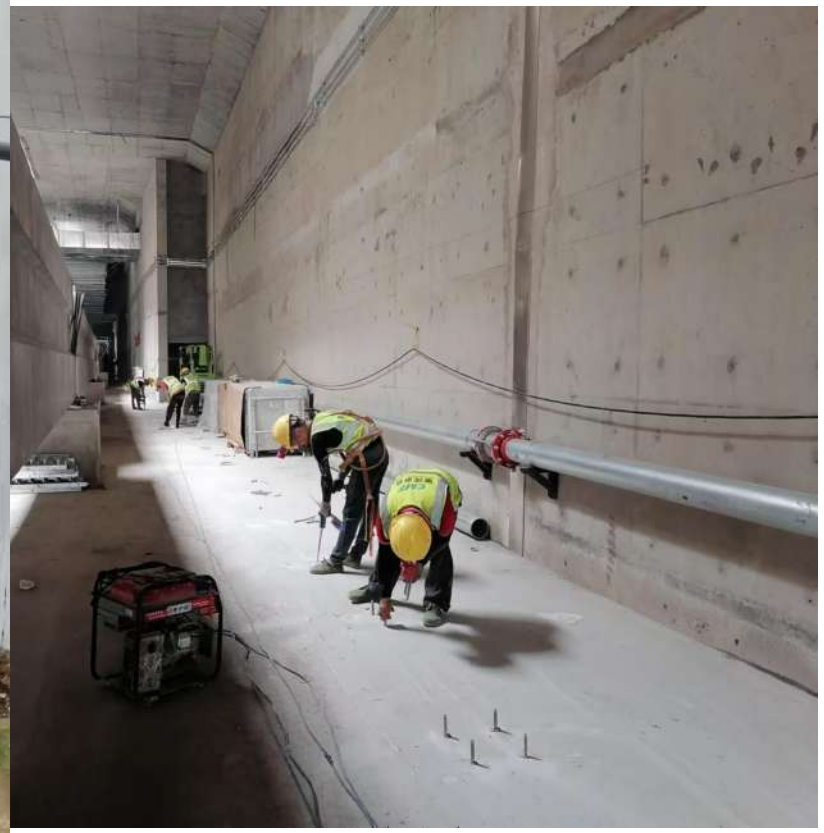
# 03 PROJECT CASES

Area: The Phillippines, QTY: 60,000 sets

- Chemical Anchor

# 03 PROJECT CASES

**Area: Russia, QTY: 20,000 sets**

- Chemical Anchor

# 04 PART FOUR.

# SERVICE

# 04 SERVICE

**Software to compliant**

Designed software to calculate anchor bolt suitable for job requirements.


**Technical Support**

Professional technical man to provide solutions from anchor selection to after services. Online support and onsite guidance.

**Warehouse logistic**

Items in stock and stocked in local warehouse. Save logistic time and deliver in demand.