# R-XPT Throughbolt

## Throughbolt for non-cracked concrete

## Approvals and Reports

- ETA 17/0183

## Product information

### Features and benefits

- High performance in non-cracked concrete confirmed by ETA Option 7
- High quality with cost effectiveness
- Suitable for reduced embedment to avoid contact with reinforcement
- Embedment depth markings help to ensure precise installation of the anchor
- Design allows drilling and installing directly through the fixture and helps to reduce installation effort
- Cold formed body ensures consistent dimensional accuracy
- Simple through-installation (drilling and installation through fixed material)
- Optimized expander design with six grip features allows for a high load-bearing capacity

### Applications

- Cladding restraint
- Curtain wall
- Balustrading
- Barriers
- Handrails
- Racking
- Structural steel
- Bollards

### Base materials

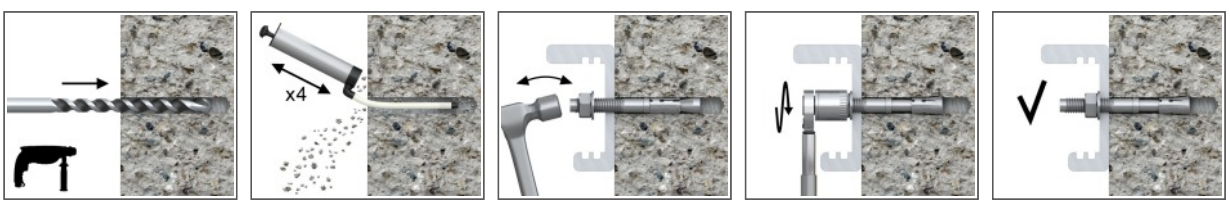
**Approved for use in:**

- Non-cracked concrete C20/25-C50/60
- Unreinforced concrete
- Reinforced concrete

**Also suitable for use in:**

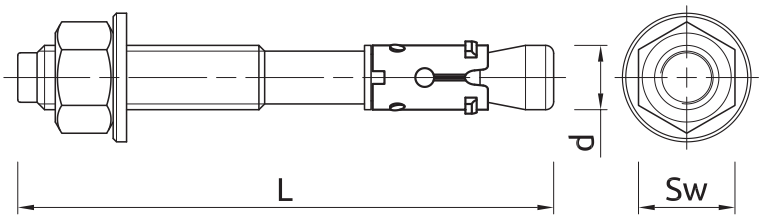
- Natural Stone (after site testing)

## Installation guide




1. Drill a hole of required diameter and depth
2. Clear the hole of drilling dust and debris (using blowpump or equivalent method)
3. Lightly tap the throughbolt through the fixture into hole with a hammer, until fixing depth is reached
4. Tighten to the recommended torque

## Product information

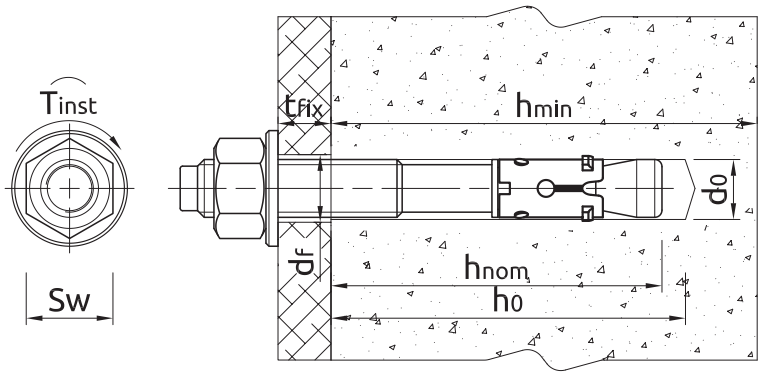



| Size | Product Code | Approval type | Anchor | | Fixture | | |
|---|---|---|---|---|---|---|---|
| | | | Diameter | Length | Max. thickness $t_{Fix}$ for: | | Hole diameter |
| | | | d | L | $h_{nom,red}$ | $h_{nom,std}$ | $d_f$ |
| | | - | [mm] | [mm] | [mm] | [mm] | [mm] |
| M6 | R-XPT-06050/10 | AT-15-9327/14 | 6 | 50 | 10 | - | 7 |
| | R-XPT-06065/5 | AT-15-9327/14 | 6 | 65 | 25 | 5 | 7 |
| | R-XPT-06085/25 | AT-15-9327/14 | 6 | 85 | 45 | 25 | 7 |
| | R-XPT-06100/40 | AT-15-9327/14 | 6 | 100 | 60 | 40 | 7 |
| M8 | R-XPT-08050/5 | AT-15-9327/14 | 8 | 50 | 5 | - | 9 |
| | R-XPT-08060/10 | ETA 17/0183 | 8 | 60 | 10 | - | 9 |
| | R-XPT-08065/15 | ETA 17/0183 | 8 | 65 | 15 | - | 9 |
| | R-XPT-08075/10 | ETA 17/0183 | 8 | 75 | 25 | 10 | 9 |
| | R-XPT-08080/15 | ETA 17/0183 | 8 | 80 | 30 | 15 | 9 |
| | R-XPT-08085/20 | ETA 17/0183 | 8 | 85 | 35 | 20 | 9 |
| | R-XPT-08095/30 | ETA 17/0183 | 8 | 95 | 45 | 30 | 9 |
| | R-XPT-08115/50 | ETA 17/0183 | 8 | 115 | 65 | 50 | 9 |
| | R-XPT-08140/75 | ETA 17/0183 | 8 | 140 | 90 | 75 | 9 |
| | R-XPT-08150/85 | ETA 17/0183 | 8 | 150 | 100 | 85 | 9 |
| M10 | R-XPT-10065/5 | ETA 17/0183 | 10 | 65 | 5 | - | 11 |
| | R-XPT-10080/10 | ETA 17/0183 | 10 | 80 | 20 | 10 | 11 |
| | R-XPT-10095/25 | ETA 17/0183 | 10 | 95 | 35 | 25 | 11 |
| | R-XPT-10115/45 | ETA 17/0183 | 10 | 115 | 55 | 45 | 11 |
| | R-XPT-10130/60 | ETA 17/0183 | 10 | 130 | 70 | 60 | 11 |
| | R-XPT-10140/70 | ETA 17/0183 | 10 | 140 | 80 | 70 | 11 |
| | R-XPT-10150/80 | ETA 17/0183 | 10 | 150 | 90 | 80 | 11 |
| | R-XPT-10180/110 | ETA 17/0183 | 10 | 180 | 120 | 110 | 11 |
| M12 | R-XPT-12080/5 | ETA 17/0183 | 12 | 80 | 5 | - | 13 |
| | R-XPT-12100/5 | ETA 17/0183 | 12 | 100 | 25 | 5 | 13 |
| | R-XPT-12120/25 | ETA 17/0183 | 12 | 120 | 45 | 25 | 13 |
| | R-XPT-12125/30 | ETA 17/0183 | 12 | 125 | 50 | 30 | 13 |
| | R-XPT-12135/40 | ETA 17/0183 | 12 | 135 | 60 | 40 | 13 |
| | R-XPT-12140/45 | ETA 17/0183 | 12 | 140 | 65 | 45 | 13 |
| | R-XPT-12150/55 | ETA 17/0183 | 12 | 150 | 75 | 55 | 13 |
| | R-XPT-12160/65 | ETA 17/0183 | 12 | 160 | 85 | 65 | 13 |
| | R-XPT-12180/85 | ETA 17/0183 | 12 | 180 | 105 | 85 | 13 |
| | R-XPT-12200/105 | ETA 17/0183 | 12 | 200 | 125 | 105 | 13 |
| | R-XPT-12220/125 | ETA 17/0183 | 12 | 220 | 145 | 125 | 13 |
| | R-XPT-12250/155 | ETA 17/0183 | 12 | 250 | 175 | 155 | 13 |
| | R-XPT-12280/185 | ETA 17/0183 | 12 | 280 | 205 | 185 | 13 |
| M16 | R-XPT-16100/5 | ETA 17/0183 | 16 | 100 | 5 | - | 18 |
| | R-XPT-16105/10 | ETA 17/0183 | 16 | 105 | 10 | - | 18 |
| | R-XPT-16125/5 | ETA 17/0183 | 16 | 125 | 25 | 5 | 18 |
| | R-XPT-16140/20 | ETA 17/0183 | 16 | 140 | 40 | 20 | 18 |
| | R-XPT-16150/30 | ETA 17/0183 | 16 | 150 | 50 | 30 | 18 |
| | R-XPT-16160/40 | ETA 17/0183 | 16 | 160 | 60 | 40 | 18 |
| | R-XPT-16180/60 | ETA 17/0183 | 16 | 180 | 80 | 60 | 18 |
| | R-XPT-16200/80 | ETA 17/0183 | 16 | 200 | 100 | 80 | 18 |
| | R-XPT-16220/100 | ETA 17/0183 | 16 | 220 | 120 | 100 | 18 |

## Product information

| Size | Product Code | Approval type | Anchor | | Fixture | | |
|---|---|---|---|---|---|---|---|
| | | | Diameter | Length | Max. thickness $t_{fix}$ for: | | Hole diameter |
| | | | d | L | $h_{nom,red}$ | $h_{nom,std}$ | $d_f$ |
| | | - | [mm] | [mm] | [mm] | [mm] | [mm] |
| M16 | R-XPT-16250/130 | ETA 17/0183 | 16 | 250 | 150 | 130 | 18 |
| | R-XPT-16280/160 | ETA 17/0183 | 16 | 280 | 180 | 160 | 18 |
| | R-XPT-16300/180 | ETA 17/0183 | 16 | 300 | 200 | 180 | 18 |
| M20 | R-XPT-20125/5 | ETA 17/0183 | 20 | 125 | 5 | - | 22 |
| | R-XPT-20160/20 | ETA 17/0183 | 20 | 160 | 40 | 20 | 22 |
| | R-XPT-20200/60 | ETA 17/0183 | 20 | 200 | 80 | 60 | 22 |
| | R-XPT-20250/110 | ETA 17/0183 | 20 | 250 | 130 | 110 | 22 |
| | R-XPT-20300/160 | ETA 17/0183 | 20 | 300 | 180 | 160 | 22 |
| M24 | R-XPT-24180/20 | AT-15-9327/14 | 24 | 180 | 35 | 20 | 26 |
| | R-XPT-24260/100 | AT-15-9327/14 | 24 | 260 | 115 | 100 | 26 |
| | R-XPT-24300/140 | AT-15-9327/14 | 24 | 300 | 155 | 140 | 26 |

## Installation data




| Size | | | M6 | M8 | M10 | M12 | M16 | M20 | M24 |
|---|---|---|---|---|---|---|---|---|---|
| Thread diameter | d | [mm] | 6 | 8 | 10 | 12 | 16 | 20 | 24 |
| Hole diameter in substrate | $d_0$ | [mm] | 6 | 8 | 10 | 12 | 16 | 20 | 24 |
| Installation torque | $T_{inst}$ | [Nm] | 5 | 15 | 30 | 50 | 100 | 200 | 300 |
| Wrench size | Sw | [mm] | 10 | 13 | 17 | 19 | 24 | 30 | 36 |
| **STANDARD EMBEDMENT DEPTH** | | | | | | | | | |
| Min. hole depth in substrate | $h_{0,s}$ | [mm] | 55 | 55 | 59 | 80 | 100 | 119 | 140 |
| Min. installation depth | $h_{nom,s}$ | [mm] | 50 | 55 | 59 | 80 | 100 | 119 | 135 |
| Min. substrate thickness | $h_{min,s}$ | [mm] | 84 | 100 | 100 | 136 | 170 | 198 | 224 |
| Min. spacing | $s_{min,s}$ | [mm] | 45 | 50 | 55 | 75 | 90 | 140 | 180 |
| Min. edge distance | $c_{min,s}$ | [mm] | 50 | 40 | 50 | 65 | 80 | 100 | 200 |
| **REDUCED EMBEDMENT DEPTH** | | | | | | | | | |
| Min. hole depth in substrate | $h_{0,r}$ | [mm] | 35 | 40 | 49 | 60 | 80 | 100 | 125 |
| Min. installation depth | $h_{nom,r}$ | [mm] | 30 | 40 | 49 | 60 | 80 | 100 | 120 |
| Min. substrate thickness | $h_{min,r}$ | [mm] | 80 | 100 | 100 | 100 | 130 | 158 | 194 |
| Min. spacing | $s_{min,r}$ | [mm] | 40 | 45 | 55 | 100 | 100 | 125 | 160 |
| Min. edge distance | $c_{min,r}$ | [mm] | 45 | 40 | 65 | 100 | 100 | 125 | 160 |

## Mechanical properties

| Size | | | M6 | M8 | M10 | M12 | M16 | M20 | M24 |
|---|---|---|---|---|---|---|---|---|---|
| Nominal ultimate tensile strength - tension | $f_{uk}$ | [N/mm²] | 620 | 620 | 620 | 620 | 620 | 620 | 620 |
| Nominal yield strength - tension | $f_{yk}$ | [N/mm²] | 531 | 531 | 531 | 531 | 531 | 531 | 531 |
| Cross sectional area - tension | $A_s$ | [mm²] | 14.25 | 25.5 | 40.7 | 60.1 | 106.6 | 162.9 | 234.52 |
| Elastic section modulus | $W_{el}$ | [mm³] | 13.15 | 31.2 | 62.3 | 109 | 276.4 | 539.9 | 940.9 |
| Characteristic bending resistance | $M^0_{Rk,s}$ | [Nm] | 7 | 17 | 35 | 61 | 154 | 301 | 525 |
| Design bending resistance | M | [Nm] | 5.6 | 13.6 | 28 | 48.8 | 123.2 | 240.8 | 420 |

## Basic performance data

Performance data for single anchor without influence of edge distance and spacing - ETAG 001

| Size | | M6 | M8 | M10 | M12 | M16 | M20 | M24 |
|---|---|---|---|---|---|---|---|---|
| **MEAN ULTIMATE LOAD** | | | | | | | | |
| **TENSION LOAD $N_{Ru,m}$** | | | | | | | | |
| Standard embedment depth | [kN] | 8.70 | 18.10 | 19.80 | 28.00 | 49.70 | 65.30 | 67.60 |
| Reduced embedment depth | [kN] | 5.70 | 10.90 | 11.40 | 21.50 | 43.00 | 45.50 | 62.70 |
| **SHEAR LOAD $V_{Ru,m}$** | | | | | | | | |
| Standard embedment depth | [kN] | 6.00 | 12.20 | 19.20 | 28.00 | 51.50 | 80.90 | 118.60 |
| Reduced embedment depth | [kN] | 6.00 | 12.20 | 19.06 | 28.00 | 51.50 | 94.70 | 118.60 |
| **CHARACTERISTIC LOAD** | | | | | | | | |
| **TENSION LOAD $N_{Rk}$** | | | | | | | | |
| Standard embedment depth | [kN] | 8.67 | 12.00 | 12.00 | 25.00 | 39.57 | 40.00 | 38.14 |
| Reduced embedment depth | [kN] | 4.27 | 9.00 | 9.00 | 16.00 | 26.46 | 35.00 | 31.92 |
| **SHEAR LOAD $V_{Rk}$** | | | | | | | | |
| Standard embedment depth | [kN] | 5.50 | 10.10 | 16.00 | 23.30 | 43.00 | 67.40 | 97.10 |
| Reduced embedment depth | [kN] | 5.50 | 9.14 | 9.14 | 16.79 | 43.00 | 67.40 | 97.10 |
| **DESIGN LOAD** | | | | | | | | |
| **TENSION LOAD $N_{Rd}$** | | | | | | | | |
| Standard embedment depth | [kN] | 3.44 | 6.67 | 6.67 | 13.89 | 21.99 | 22.22 | 15.13 |
| Reduced embedment depth | [kN] | 1.69 | 5.00 | 5.00 | 8.89 | 14.70 | 19.44 | 12.67 |
| **SHEAR LOAD $V_{Rd}$** | | | | | | | | |
| Standard embedment depth | [kN] | 4.40 | 8.08 | 11.55 | 18.64 | 34.40 | 53.92 | 77.68 |
| Reduced embedment depth | [kN] | 4.40 | 6.09 | 6.09 | 11.20 | 34.40 | 42.28 | 77.68 |
| **RECOMMENDED LOAD** | | | | | | | | |
| **TENSION LOAD $N_{rec}$** | | | | | | | | |
| Standard embedment depth | [kN] | 2.46 | 4.76 | 4.76 | 9.92 | 15.70 | 15.87 | 10.81 |
| Reduced embedment depth | [kN] | 1.21 | 3.57 | 3.60 | 6.35 | 10.50 | 13.89 | 9.05 |
| **SHEAR LOAD $V_{rec}$** | | | | | | | | |
| Standard embedment depth | [kN] | 3.14 | 5.77 | 8.25 | 13.31 | 24.57 | 38.51 | 55.49 |
| Reduced embedment depth | [kN] | 3.14 | 4.35 | 4.35 | 8.00 | 24.57 | 33.77 | 55.49 |

# Design performance data

Standard embedment depth

(-) failure is not decisive

| Size | | | M6 | M8 | M10 | M12 | M16 | M20 | M24 |
|---|---|---|---|---|---|---|---|---|---|
| Effective embedment depth | $h_{ef}$ | [mm] | 42.00 | 47.00 | 49.00 | 68.00 | 85.00 | 99.00 | 112.00 |
| **TENSION LOAD** | | | | | | | | | |
| **STEEL FAILURE** | | | | | | | | | |
| Characteristic resistance | $N_{Rk,s}$ | [kN] | 8.84 | 15.80 | 25.20 | 37.30 | 66.10 | 101.00 | 145.40 |
| Partial safety factor | $\gamma_{Ms}$ | - | 1.40 | 1.40 | 1.40 | 1.40 | 1.40 | 1.40 | 1.40 |
| **PULL-OUT FAILURE; NON-CRACKED CONCRETE C20/25** | | | | | | | | | |
| Characteristic resistance | $N_{Rk,p}$ | [kN] | 8.67 | 12.00 | 12.00 | 25.00 | 40.00 | 40.00 | 38.14 |
| **PULL-OUT FAILURE** | | | | | | | | | |
| Installation safety factor | $\gamma_2$ | - | 1.68 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.68 |
| Increasing factors for $N_{Rd,p}$ - C30/37 | $\Psi_c$ | - | 1.00 | 1.10 | 1.37 | 1.16 | 1.17 | 1.30 | 1.00 |
| Increasing factors for $N_{Rd,p}$ - C40/50 | $\Psi_c$ | - | 1.00 | 1.21 | 1.74 | 1.33 | 1.34 | 1.59 | 1.00 |
| Increasing factors for $N_{Rd,p}$ - C50/60 | $\Psi_c$ | - | 1.00 | 1.32 | 2.10 | 1.49 | 1.50 | 1.89 | 1.00 |
| **CONCRETE CONE FAILURE** | | | | | | | | | |
| Factor for non-cracked concrete | k | - | 10.10 | 10.10 | 10.10 | 10.10 | 10.10 | 10.10 | 10.10 |
| Factor for non-cracked concrete | $k_{ucr,N}$ | - | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 |
| Installation safety factor | $\gamma_2$ | - | 1.68 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.68 |
| Spacing | $s_{cr,N}$ | [mm] | 126.00 | 141.00 | 147.00 | 204.00 | 255.00 | 297.00 | 336.00 |
| Edge distance | $c_{cr,N}$ | [mm] | 63.00 | 71.00 | 74.00 | 102.00 | 128.00 | 149.00 | 168.00 |
| **CONCRETE SPLITTING FAILURE** | | | | | | | | | |
| Spacing | $s_{cr,sp}$ | [mm] | 210.00 | 240.00 | 260.00 | 370.00 | 430.00 | 530.00 | 580.00 |
| Edge distance | $c_{cr,sp}$ | [mm] | 105.00 | 120.00 | 130.00 | 185.00 | 215.00 | 265.00 | 290.00 |
| Installation safety factor | $\gamma_2$ | - | 1.68 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.68 |
| **SHEAR LOAD** | | | | | | | | | |
| **STEEL FAILURE** | | | | | | | | | |
| Characteristic resistance without lever arm | $V_{Rk,s}$ | [kN] | 5.50 | 10.10 | 16.00 | 23.30 | 43.00 | 67.40 | 97.10 |
| Ductility factor | $k_7$ | - | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| Characteristic resistance with lever arm | $M_{Rk,s}$ | [Nm] | 7.34 | 17.00 | 35.00 | 61.00 | 154.00 | 301.00 | 525.00 |
| Partial safety factor | $\gamma_{Ms}$ | - | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| **CONCRETE PRY-OUT FAILURE** | | | | | | | | | |
| Factor | k | - | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Installation safety factor | $\gamma_2$ | - | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| **CONCRETE EDGE FAILURE** | | | | | | | | | |
| Effective length of anchor | $\ell_f$ | [mm] | 42.00 | 47.00 | 49.00 | 68.00 | 85.00 | 99.00 | 112.00 |
| Anchor diameter | $d_{nom}$ | [mm] | 6.00 | 8.00 | 10.00 | 12.00 | 16.00 | 20.00 | 24.00 |
| Installation safety factor | $\gamma_2$ | - | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

# Design performance data

Reduced embedment depth

(-) failure is not decisive

| Size | | | M6 | M8 | M10 | M12 | M16 | M20 | M24 |
|---|---|---|---|---|---|---|---|---|---|
| Effective embedment depth | $h_{ef}$ | [mm] | 22.00 | 32.00 | 39.00 | 48.00 | 65.00 | 79.00 | 97.00 |
| **TENSION LOAD** | | | | | | | | | |
| **STEEL FAILURE** | | | | | | | | | |
| Characteristic resistance | $N_{Rk,s}$ | [kN] | 8.84 | 15.80 | 25.20 | 37.30 | 66.10 | 101.00 | 145.40 |
| Partial safety factor | $\gamma_{Ms}$ | - | 1.40 | 1.40 | 1.40 | 1.40 | 1.40 | 1.40 | 1.40 |
| **PULL-OUT FAILURE; NON-CRACKED CONCRETE C20/25** | | | | | | | | | |
| Characteristic resistance | $N_{Rk,p}$ | [kN] | 4.27 | 9.00 | 9.00 | 16.00 | 30.00 | 35.00 | 31.92 |
| **PULL-OUT FAILURE** | | | | | | | | | |
| Installation safety factor | $\gamma_2$ | - | 1.68 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.68 |
| Increasing factors for $N_{Rd,p}$ - C30/37 | $\Psi_c$ | - | 1.00 | 1.25 | 1.36 | 1.20 | 1.12 | 1.18 | 1.00 |
| Increasing factors for $N_{Rd,p}$ - C40/50 | $\Psi_c$ | - | 1.00 | 1.50 | 1.72 | 1.40 | 1.23 | 1.36 | 1.00 |
| Increasing factors for $N_{Rd,p}$ - C50/60 | $\Psi_c$ | - | 1.00 | 1.76 | 2.08 | 1.60 | 1.34 | 1.54 | 1.00 |
| **CONCRETE CONE FAILURE** | | | | | | | | | |
| Factor for non-cracked concrete | k | - | 10.10 | 10.10 | 10.10 | 10.10 | 10.10 | 10.10 | 10.10 |
| Factor for non-cracked concrete | $k_{ucr,N}$ | - | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 | 11.00 |
| Installation safety factor | $\gamma_2$ | - | 1.68 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.68 |
| Spacing | $s_{cr,N}$ | [mm] | 66.00 | 96.00 | 117.00 | 144.00 | 195.00 | 237.00 | 291.00 |
| Edge distance | $c_{cr,N}$ | [mm] | 33.00 | 48.00 | 59.00 | 72.00 | 98.00 | 119.00 | 156.00 |
| **CONCRETE SPLITTING FAILURE** | | | | | | | | | |
| Spacing | $s_{cr,sp}$ | [mm] | 110.00 | 160.00 | 200.00 | 250.00 | 360.00 | 410.00 | 500.00 |
| Edge distance | $c_{cr,sp}$ | [mm] | 55.00 | 80.00 | 100.00 | 125.00 | 180.00 | 205.00 | 250.00 |
| Installation safety factor | $\gamma_2$ | - | 1.68 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.68 |
| **SHEAR LOAD** | | | | | | | | | |
| **STEEL FAILURE** | | | | | | | | | |
| Characteristic resistance without lever arm | $V_{Rk,s}$ | [kN] | 5.50 | 10.10 | 16.00 | 23.30 | 43.00 | 67.40 | 97.10 |
| Ductility factor | $k_7$ | - | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| Characteristic resistance with lever arm | $M_{Rk,s}$ | [Nm] | 7.34 | 17.00 | 35.00 | 61.00 | 154.00 | 301.00 | 525.00 |
| Partial safety factor | $\gamma_{Ms}$ | - | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| **CONCRETE PRY-OUT FAILURE** | | | | | | | | | |
| Factor | k | - | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Installation safety factor | $\gamma_2$ | - | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| **CONCRETE EDGE FAILURE** | | | | | | | | | |
| Effective length of anchor | $\ell_f$ | [mm] | 22.00 | 32.00 | 39.00 | 48.00 | 65.00 | 79.00 | 97.00 |
| Anchor diameter | $d_{nom}$ | [mm] | 6.00 | 8.00 | 10.00 | 12.00 | 16.00 | 20.00 | 24.00 |
| Installation safety factor | $\gamma_2$ | - | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

# Product commercial data

| Size | Product Code | Anchor | | Quantity [pcs] | | | Weight [kg] | | | Bar Codes |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Diameter [mm] | Length [mm] | Box | Outer | Pallet | Box | Outer | Pallet | |
| M6 | R-XPT-06050/10 | 6 | 50 | 100 | 100 | 16000 | 1.27 | 1.27 | 233.2 | 5906675233499 |
| | R-XPT-06065/5 | 6 | 65 | 100 | 100 | 16000 | 1.55 | 1.55 | 278.0 | 5906675233505 |
| | R-XPT-06085/25 | 6 | 85 | 100 | 100 | 16000 | 1.85 | 1.85 | 326.0 | 5906675233512 |
| | R-XPT-06100/40 | 6 | 100 | 100 | 100 | 16000 | 2.1 | 2.1 | 370.8 | 5906675250311 |
| M8 | R-XPT-08050/5[1)] | 8 | 50 | 100 | 100 | 16000 | 2.3 | 2.3 | 396.4 | 5906675250328 |
| | R-XPT-08060/10[1)] | 8 | 60 | 100 | 100 | 16000 | 2.6 | 2.6 | 446.0 | 5906675234601 |
| | R-XPT-08065/15[1)] | 8 | 65 | 100 | 100 | 16000 | 2.7 | 2.7 | 465.2 | 5906675250335 |
| | R-XPT-08075/10[1)] | 8 | 75 | 100 | 100 | 16000 | 3.1 | 3.1 | 518.0 | 5906675233536 |
| | R-XPT-08080/15[1)] | 8 | 80 | 100 | 100 | 16000 | 3.2 | 3.2 | 542.0 | 5906675250342 |
| | R-XPT-08085/20[1)] | 8 | 85 | 100 | 100 | 16000 | 3.4 | 3.4 | 578.8 | 5906675249636 |
| | R-XPT-08095/30[1)] | 8 | 95 | 100 | 100 | 12000 | 3.7 | 3.7 | 469.2 | 5906675233543 |

## Product commercial data

| Size | Product Code | Anchor | | Quantity [pcs] | | | Weight [kg] | | | Bar Codes |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Diameter [mm] | Length [mm] | Box | Outer | Pallet | Box | Outer | Pallet | |
| M8 | R-XPT-08115/50[1)] | 8 | 115 | 100 | 100 | 12000 | 4.3 | 4.3 | 540.0 | 5906675233550 |
| | R-XPT-08140/75[1)] | 8 | 140 | 100 | 100 | 16000 | 5.2 | 5.2 | 855.6 | 5906675233567 |
| | R-XPT-08150/85[1)] | 8 | 150 | 100 | 100 | 16000 | 5.4 | 5.4 | 887.6 | 5906675250359 |
| M10 | R-XPT-10065/5[1)] | 10 | 65 | 50 | 50 | 8000 | 2.4 | 2.4 | 408.4 | 5906675233574 |
| | R-XPT-10080/10[1)] | 10 | 80 | 50 | 50 | 8000 | 2.7 | 2.7 | 468.4 | 5906675233581 |
| | R-XPT-10095/25[1)] | 10 | 95 | 50 | 50 | 8000 | 3.1 | 3.1 | 527.6 | 5906675233598 |
| | R-XPT-10115/45[1)] | 10 | 115 | 50 | 50 | 6000 | 3.6 | 3.6 | 463.2 | 5906675233604 |
| | R-XPT-10130/60[1)] | 10 | 130 | 50 | 50 | 8000 | 4.0 | 4.0 | 664.4 | 5906675249643 |
| | R-XPT-10140/70[1)] | 10 | 140 | 50 | 50 | 8000 | 4.2 | 4.2 | 705.2 | 5906675233611 |
| | R-XPT-10150/80[1)] | 10 | 150 | 50 | 50 | 8000 | 4.5 | 4.5 | 742.0 | 5906675249650 |
| | R-XPT-10180/110[1)] | 10 | 180 | 50 | 50 | 6000 | 5.2 | 5.2 | 654.6 | 5906675250366 |
| M12 | R-XPT-12080/5[1)] | 12 | 80 | 50 | 50 | 8000 | 4.1 | 4.1 | 678.0 | 5906675233628 |
| | R-XPT-12100/5[1)] | 12 | 100 | 50 | 50 | 8000 | 4.8 | 4.8 | 792.4 | 5906675233635 |
| | R-XPT-12120/25[1)] | 12 | 120 | 50 | 50 | 6000 | 5.5 | 5.5 | 690.0 | 5906675250373 |
| | R-XPT-12125/30[1)] | 12 | 125 | 50 | 50 | 6000 | 5.7 | 5.7 | 709.2 | 5906675233642 |
| | R-XPT-12135/40[1)] | 12 | 135 | 50 | 50 | 6000 | 6.1 | 6.1 | 757.8 | 5906675250380 |
| | R-XPT-12140/45[1)] | 12 | 140 | 50 | 50 | 6000 | 6.2 | 6.2 | 769.2 | 5906675249667 |
| | R-XPT-12150/55[1)] | 12 | 150 | 50 | 50 | 4000 | 6.6 | 6.6 | 558.4 | 5906675233659 |
| | R-XPT-12160/65[1)] | 12 | 160 | 50 | 50 | 4000 | 6.9 | 6.9 | 584.4 | 5906675216416 |
| | R-XPT-12180/85[1)] | 12 | 180 | 50 | 50 | 4000 | 7.6 | 7.6 | 639.2 | 5906675233666 |
| | R-XPT-12200/105[1)] | 12 | 200 | 50 | 50 | 4000 | 8.3 | 8.3 | 696.4 | 5906675312132 |
| | R-XPT-12220/125[1)] | 12 | 220 | 50 | 50 | 4000 | 9.1 | 9.1 | 755.2 | 5906675233673 |
| | R-XPT-12250/155[1)] | 12 | 250 | 25 | 25 | 3000 | 5.1 | 5.1 | 637.8 | 5906675312149 |
| | R-XPT-12280/185[1)] | 12 | 280 | 20 | 20 | 1600 | 4.6 | 4.6 | 395.8 | 5906675312156 |
| M16 | R-XPT-16100/5[1)] | 16 | 100 | 25 | 25 | 4000 | 4.4 | 4.4 | 731.6 | 5906675233680 |
| | R-XPT-16105/10[1)] | 16 | 105 | 25 | 25 | 4000 | 4.6 | 4.6 | 763.6 | 5906675250403 |
| | R-XPT-16125/5[1)] | 16 | 125 | 25 | 25 | 4000 | 5.3 | 5.3 | 869.6 | 5906675233697 |
| | R-XPT-16140/20[1)] | 16 | 140 | 25 | 25 | 4000 | 5.7 | 5.7 | 948.4 | 5906675249063 |
| | R-XPT-16150/30[1)] | 16 | 150 | 25 | 25 | 4000 | 6.1 | 6.1 | 1001.2 | 5906675249674 |
| | R-XPT-16160/40[1)] | 16 | 160 | 25 | 25 | 3000 | 6.4 | 6.4 | 792.9 | 5906675250410 |
| | R-XPT-16180/60[1)] | 16 | 180 | 25 | 25 | 3000 | 7.0 | 7.0 | 873.3 | 5906675249681 |
| | R-XPT-16200/80[1)] | 16 | 200 | 25 | 25 | 3000 | 12.5 | 12.5 | 1530.0 | 5906675312163 |
| | R-XPT-16220/100[1)] | 16 | 220 | 25 | 25 | 3000 | 8.4 | 8.4 | 1037.4 | 5906675233727 |
| | R-XPT-16250/130[1)] | 16 | 250 | 25 | 25 | 3000 | 9.3 | 9.3 | 1148.1 | 5906675312170 |
| | R-XPT-16280/160[1)] | 16 | 280 | 15 | 15 | 1200 | 6.3 | 6.3 | 532.3 | 5906675250427 |
| | R-XPT-16300/180[1)] | 16 | 300 | 10 | 10 | 650 | 4.4 | 4.4 | 318.5 | 5906675312187 |
| M20 | R-XPT-20125/5[1)] | 20 | 125 | 25 | 25 | 3000 | 8.3 | 8.3 | 1020.0 | 5906675233734 |
| | R-XPT-20160/20[1)] | 20 | 160 | 25 | 25 | 2000 | 10.1 | 10.1 | 836.0 | 5906675233741 |
| | R-XPT-20200/60[1)] | 20 | 200 | 10 | 10 | 1200 | 4.9 | 4.9 | 619.7 | 5906675233758 |
| | R-XPT-20250/110[1)] | 20 | 250 | 10 | 10 | 1200 | 5.0 | 5.0 | 630.0 | 5906675312194 |
| | R-XPT-20300/160[1)] | 20 | 300 | 10 | 10 | 800 | 7.1 | 7.1 | 593.7 | 5906675233765 |
| M24 | R-XPT-24180/20 | 24 | 180 | 10 | 10 | 1200 | 7.0 | 7.0 | 872.2 | 5906675233772 |
| | R-XPT-24260/100 | 24 | 260 | 10 | 10 | 1200 | 9.3 | 9.3 | 1148.8 | 5906675233789 |
| | R-XPT-24300/140 | 24 | 300 | 10 | 10 | 800 | 10.5 | 10.5 | 872.7 | 5906675233796 |

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