











TNO Fatigue Test

A comprehensive test programme provided reliable performance data and the SSR-128 was approved for use to fit 12 metre high columns to the barrier on the recently completed A12 Stanway to Spring Lane central reservation improvements project.

innovation

Fatigue loading of resin anchors Report nr. 25.5-07-07





A12 Highway **United Kingdom**





Karat 164 CSB

Diamond Core Drilling Rig specially designed for very precise drilling of the anchor holes for the installation of Flange Plate Lighting Poles.

Base Plate Design allows for very fast set-up and drilling while maintaining the highest level of accuracy.





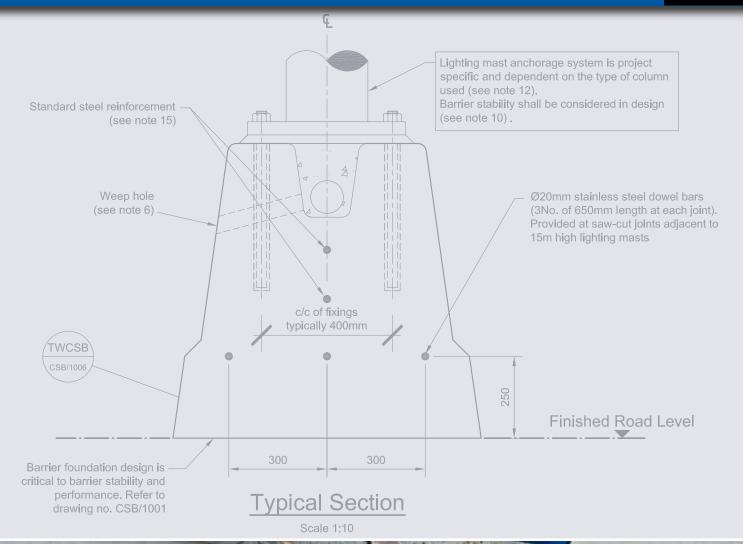


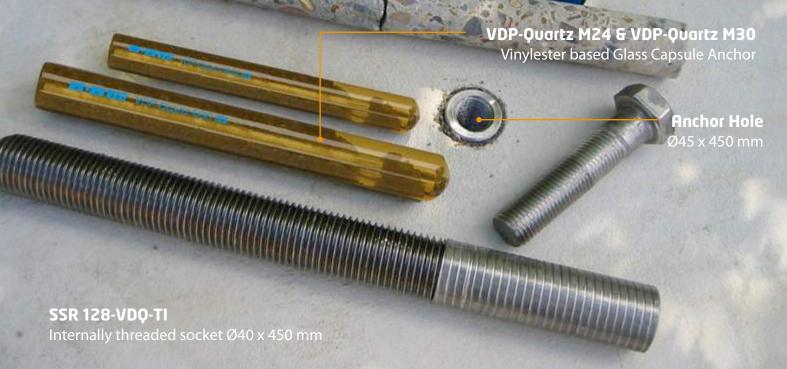




United Kingdom

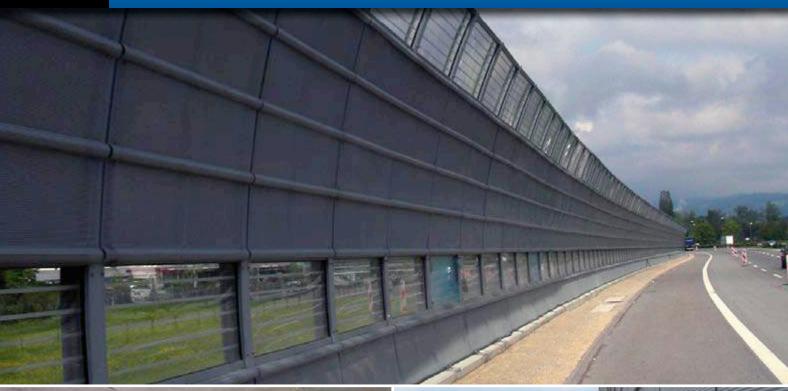
Road & Bridge Construction







Zurich, Switzerland







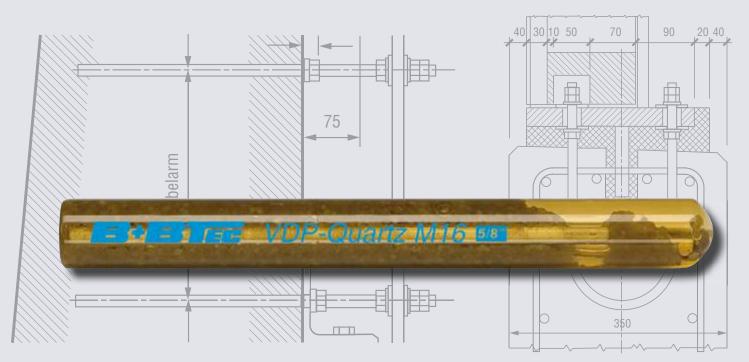




Project Data

Anchor Type	Anchor Rod	Steel Qualit
VD-Q 16	M16 x 225 mm	HCR 1.4529
VD-Q 16/2t	M16 x 350 mm	HCR 1.4529
VD-Q 20/1.5t	M20 x 360 mm	HCR 1.4529
VD-Q 20/1.5t	M20 x 380 mm	HCR 1.4529
VD-Q 20/2t	M20 x 480 mm	HCR 1.4529
VD-Q 24/1.5t	M24 x 460 mm	HCR 1.4529
VD-Q 24/2t	M24 x 540 mm	HCR 1.4529







Hoselkehr, Switzerland





Project Data

Anchor Type VD-Q **Anchor Dimension** M20/2t

M24/1,5t

Anchor Rod M20 x 480 mm

M24 x 540 mm

Steel Quality A4 Wst. 1.4462















Anchor Dimension M20

Anchor hole **Diamond Drilled** BIS-PE Pure-Epoxy 3:1 Anchor Type







High Rise Construction

Telecom Masts Europe 2010 - 2015

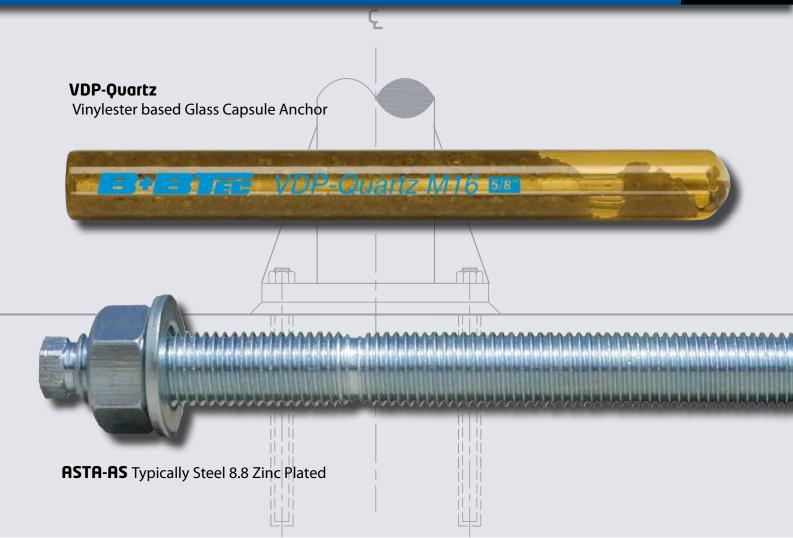
















Port of Rotterdam **Netherlands** 2006





A number of incorrectly installed and even missing anchors forced port authorities to order the complete re-installation of these fenders.

Installed anchors were drilled out and replaced with VDP-Q M30.













Netherlands 2006



Project Data

Anchor Type VDP-O **Anchor Dimension** M30

Anchor Rod ASTA M30 x 360 mm Steel Quality Steel 8.8 Zinc plated

Embedment Depth 280 mm Drilling Method Diamond Coring Machines Karat 164

Karat 164-Hydr.

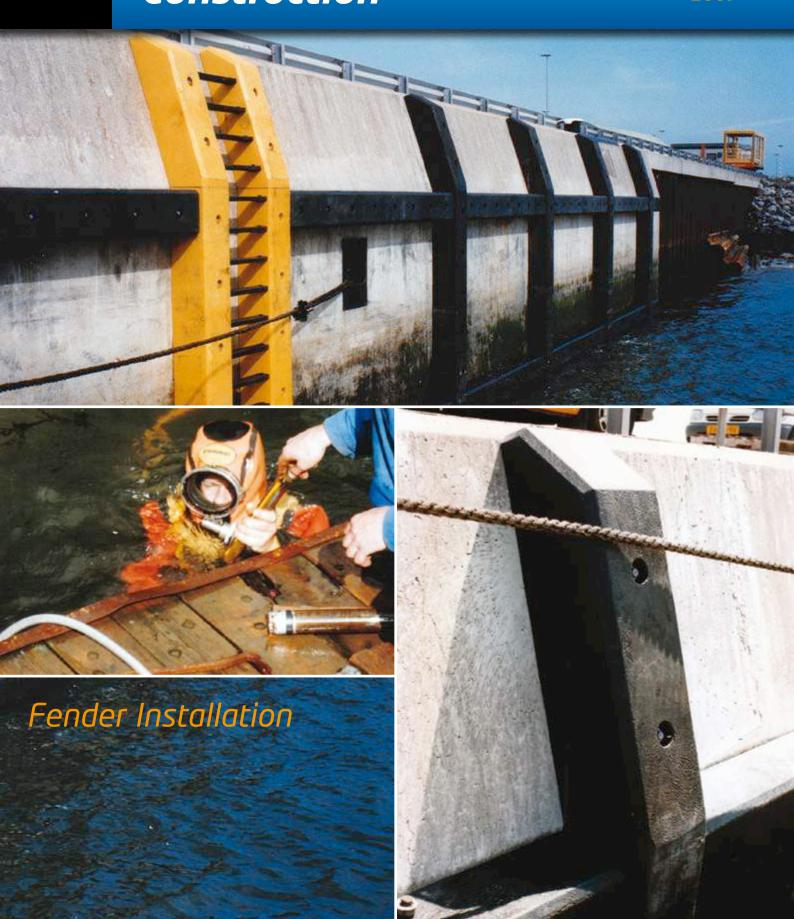




www.bbtectools.com



Underwater Applications









Project Data

Anchor Type **VD-I 30** Anchor Dimension 45 x 280 mm

Anchor Bolt M30

Steel Quality 5.8 Zinc Plated

Anchor Hole Diameter Ø50 mm Embedment Depth 280 mm Drilling Method Diamond





VDP-UW M30

Glass Capsule Anchor designed for **Underwater Applications**



VD-I30

Internally Threaded Socket for Flush Mount Anchoring







Rotterdam **Netherlands**





Fender Reinforcement

After a collision with a fender protecting a bridge, a second fender was placed in front. The two fenders were connected by a steel construction to be able to withstand the exteme high shear loads resulting from a future collision













Project Data

Anchor Type : VDP (4 x M30 per hole) Anchor Rod ASTA M64 x 700 mm

Steel Quality Steel 8.8 Hot Dip Galvanized

Anchor Hole Diameter: Ø70 mm **Embedment Depth** 600 mm Drilling Method Diamond







Railroad Construction

Riyadh Metro Saudi Arabia 2016



The project includes the design and construction of Special Multi Spindle Core Drilling Rigs and the Supply of Pure Epoxy Injection Mortar for three lines: line 4 (yellow), line 5 (green) and line 6 (purple) (see metro map), which will have 25 stations. Construction will include 64.6 kilometres of rail consisting of:

- 29.8 kilometres of viaducts
- 26.6 kilometres of underground tracks
- 8.2 kilometres of overground tracks

The six lines comprising the Riyadh metro project will span more than 176 kilometres, making it the largest subway under development in the world at present. Construction will require 600,000 tonnes of steel, 4.3 million cubic metres of concrete and will employ over 30,000 people

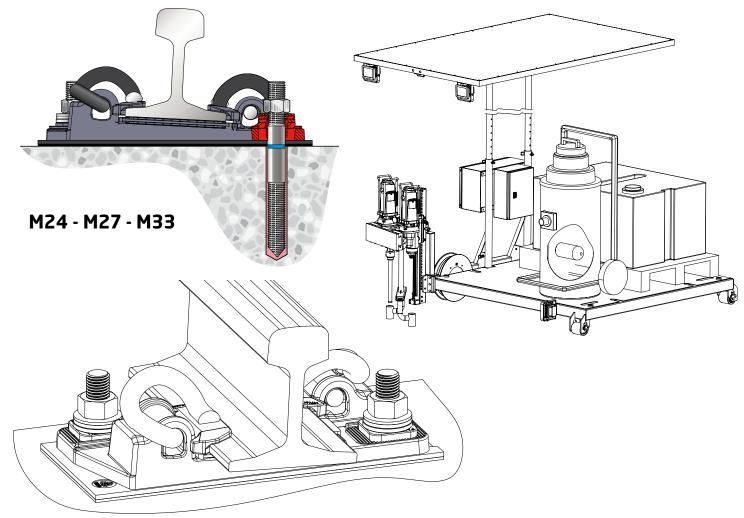














Railroad Construction

Netherlands 1994 - 2013

















Railroad Construction

Metro Station Blijdorp Rotterdom, Netherlands





Strut Frame Installation

During the excavation of the underground metro station several strut frames were installed in the 18 mtr deep construction pit to prevent collaps.

The frames were mounted on support brackets anchored with VDP M30 capsules.













Railroad Construction



Project Data

Anchor Type **VDP Anchor Dimension** M30

Anchor Rod ASTA M30 x 360 mm Steel Quality Steel 8.8 Zinc plated

Embedment Depth : 280 mm

Anchor hole Diamond Drilled







Salvage Projects

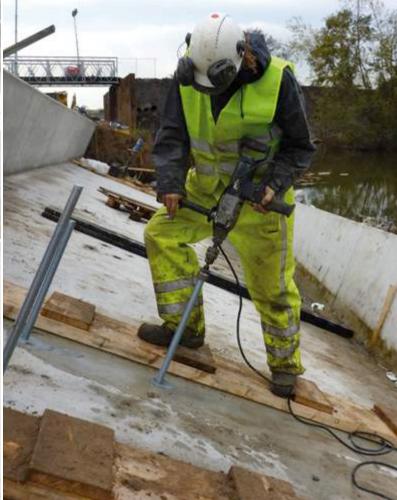




Bridge Deck Incident

During Construction on a cross road of the Metro Line Gaasperplas and A9 Gaasperdammerweg, Amsterdam an accident occured: 1 out of 3 required 210t Bridge Decks slid of a Low Loader and ended up in a canal.

The Bridge Deck was salvaged using 16 B+BTec VDP-Q M30 Anchors.







Salvage Projects





Project Data

Weight Bridge Deck 210 tons Anchor Type VDP M30

Number of Anchors 16 Embedment Depth 550 mm







Offshore Industry



















Project Data

Anchor Dimension M30 x 500 Number of Anchors 600

Steel Quality 8.8 Zinc Plated Anchor hole Diamond Drilled Anchor Type BIS-PE Pure-Epoxy 3:1





