



# WORLD HIGHWAYS

ROUTES DU MONDE

## Bridge and tunnel structures:

Solutions for bridges and tunnels p38



**Highway & safety:**  
Bridge maintenance  
innovations p8



**Asphalt paving  
& compaction:**  
Advances in paving  
and compaction p14



**Concrete  
technology:**  
New systems for  
slipforming and  
production p46



# GEWI piles for Blankenburg Connection

BAUER Funderingstechniek is installing GEWI micropiles with threads as part of Rotterdam's new 4km-long A24 highway that includes two tunnels under the Scheur River



The work by BAUER Funderingstechniek is an offshoot of a subsidiary of Geotechnisch Bedrijf Benthin (GBB) in the Netherlands, which is the main contractor for the Blankenburg Connection project, one of the city's largest highway and tunnel projects.

Rotterdam's urban expansion of around 600,000 m<sup>2</sup> is the second largest city in the Netherlands and Europe's largest port, making it an important infrastructure project. The Blankenburg Connection will reduce traffic and provide better connections.

BAUER has been delivering GEWI micropiles to the site since July 2019 and by May 2020 will have installed 4,000 piles. But preliminary pile load tests were conducted in 2018 to investigate the ground conditions in terms of the size and stiffness of the soil, and they followed by firm clay and medium dense to dense layers of sand were detected down to a depth of up to 20m.

The design of the 100mm piles for the tunnel project was scheduled based on the results of the pile load tests. Installation of the pile foundation for the southern ramp of the tunnel, 30m deep, started in late 2019 and is due to complete in 2021.

BAUER is working with GBB and Benthin on the project with its partner De Vries Tunnels, said Soilmec's Director, project manager in BAUER Funderingstechniek, "This may be the way to keep us in the right schedule."

BAUER is installing the deepest GEWI piles in the Netherlands to date. The project is part of the HAP (Haven Amsterdam Port) - Amsterdam City Centre - a large infrastructure project for the Amsterdam urban south.

BAUER Funderingstechniek  
www.baufundering.nl

## Green running for Soilmec's Blue Tech SR-75

More power but less fuel consumption is a key environmental feature of Soilmec's SR-75 piling rig, the latest addition to the company's Blue Tech line. Alongside increased transportability, the SR-75 decreases fuel consumption with its Tier 4 final engine to provide cutting-edge rig control and remote monitoring with DMS (distributed monitoring system).

The SR-75 in the large diameter piling category brings the power of the SR-80 to the weight class of the SR-65. Weight is around 68 tonnes and power comes in at 328kW, both depending upon configuration of the unit.

Applications include LDP cased bore piles with casing driven directly by rotary head or optionally by casing oscillator powered by the base carrier itself. Deep uncased bored piles are stabilised by drilling fluid or dry hole.

The unit can complete large diameter bored piles as well as continuous flight auger piles by means of long auger string. There is also the

ability for Turbojet soil consolidation and reverse circulation drilling.

The new set-up saves about 10 litres of fuel per hour, according to the company. Improved electrical and hydraulic systems merged with smart positioning of hydraulic components means improved response and smoother performance of all rig operations. Torque on the rotary head is now around 281 kNm of rated value. The DMS 4.0 with a simple navigation menu and intuitive interactive graphics help the operator in day-to-day drilling planning and execution.

Soilmec says that, like all the company's rigs, the SR-75 is self-assembling, versatile and easily transported. Easy and quick conversion packages let you create an SR-75 Blue Tech that's a perfect fit for site requirements.

Soilmec  
www.soilmecna.com



The SR-75 decreases fuel consumption with its Tier 4 final engine