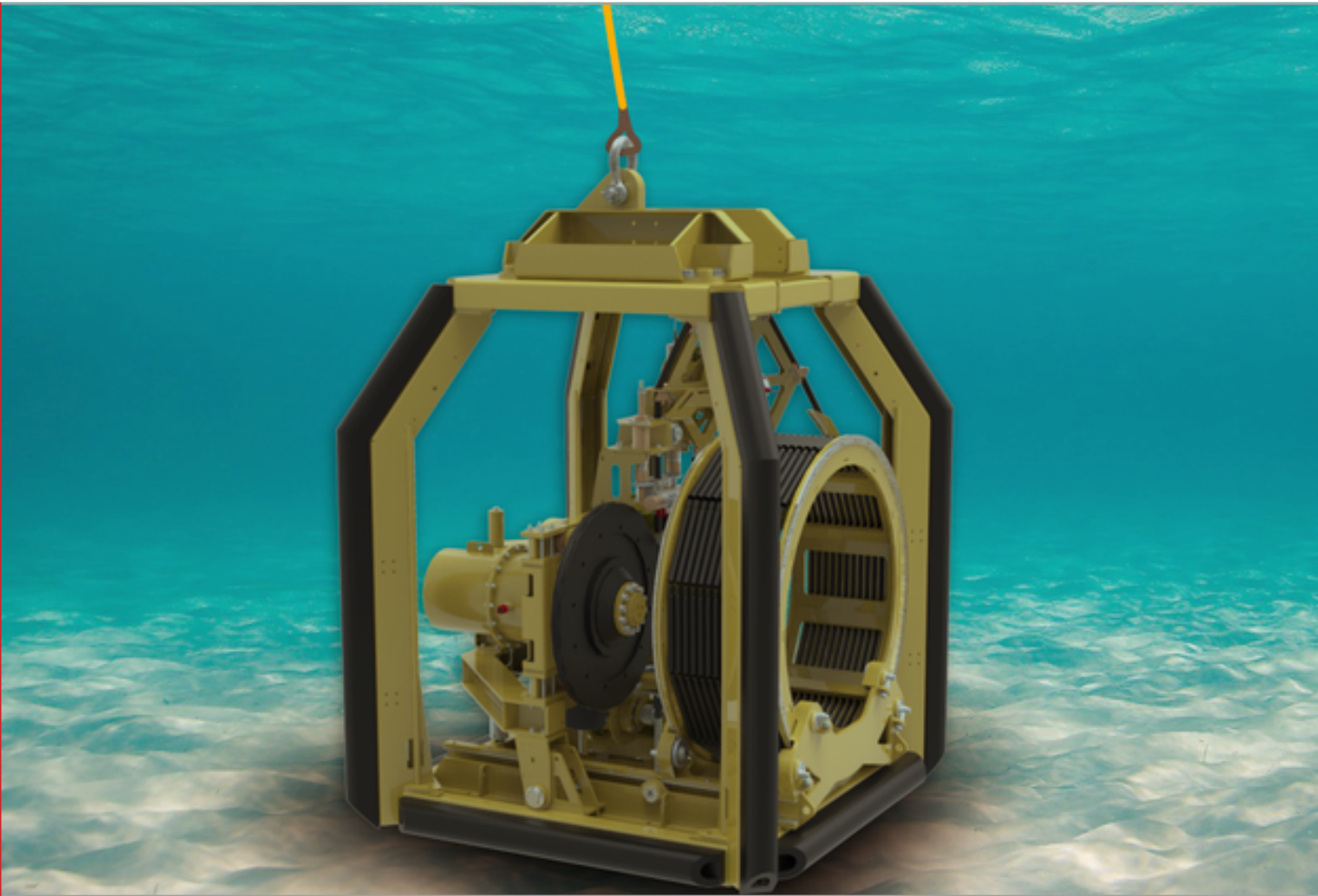




a.p. van den berg
The CPT factory

ROSON-ST

up to 50 m CPT with the compact & easy to handle seabed CPT system

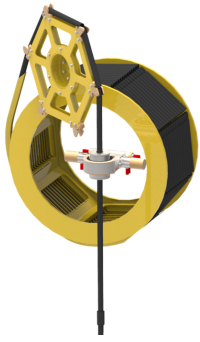


features

- compact design, so easy to handle from most vessels
- fast deployment & high productivity
- full-size CPT rods for straight & continuous push up to 50 m
- patented technology + proven ROSON system
- 1,500 m or 4,000 m water depth rating
- 10 & 20 tons pushing capacity

creating tools that move your business

ROSON-ST, up to 50 m CPT with the compact & easy to handle seabed CPT system



introduction

The ROSON-ST builds on the unrivalled track record of the existing ROSON and Icone technologies. The digital Icone has been around for almost 15 years, and the ROSON technology has proven itself for robustness, reliability and CPT quality over the last 35 years. The remaining challenge has been to

eliminate the need to support the CPT string, particularly with ever-increasing CPT penetration depths. This external string support makes a ROSON system heavier, more difficult to handle and time consuming to set up. Compact solutions available today introduce shortcomings of their own, concerning achievable penetration depth, data reliability, cone sizes to choose from and increased wear and tear. The ROSON-ST is the answer to these issues.

ST-Rods: the foldable CPT string

The ST-Rods are mounted on the ROSON seabed system. They can be in one of just two states, twisted or untwisted, and it takes very little to transform them from one state to another. Untwisted, the ST-Rods behave a bit like a pearl necklace and can be easily folded onto a reel. Once twisted, the rods form a solid CPT string with a push/pull/buckle performance equal to a string of standard CPT rods. Because the rods have a self-seeking bayonet thread, they close effortlessly and require just a final, short, single twist to become firmly interlocked, hence the name SingleTwist-Rods. All it takes to put together an automated CPT system, i.e. one that performs a full CPT and a subsequent complete reel-in of the string on a single operator command, is a folder, a twister and a sprocket wheel to connect the two.

fast deployment & high productivity

Through the compact design, the ROSON-ST is easy to handle from most vessels. It can be deployed for projects from shallow to ultra-deep water. Both a 1,500 m version as well as a deep water version for water depths up to 4,000 m are available. The ROSON-ST does not require any exterior CPT string support, assuring fast deployment and high productivity. The use of the patented ST-rods ensures the straight push that may be expected from a CPT system. It is suitable for 50 m penetration. The standard configuration with a 10 tons pushing force will be more than enough for the majority of your projects, but a 20 tons version is also available. The system is conveniently controlled via a single HMI touch screen.

robust technology for harsh offshore conditions

In the ROSON-ST robust technology is integrated to operate in the harsh offshore conditions. The optical fibre umbilical guarantees realtime broadband data transmission and power supply over great distances. The selftensioning electric winch is provided with a level winder for proper layering of the umbilical. Optional features are a spin control system for steady system deployment and a ballast and skirt system for stabilization on the seafloor and minimal disturbance of the soil.

digital Icone data acquisition system

The ROSON works in conjunction with A.P. van den Berg's digital Icone data acquisition system. It enables measurement of cone resistance (q_c), local friction (f_c), pore water pressure (u) and inclination (lx/y). The Icone is easily extendable with click-on modules to measure other than the four standard parameters. The Icone Vane can be used at water depths up to 4,000 m. The modules Conductivity, Magneto and Seismic at water depths up to 1,000 m. For high accuracy over the full range of water depths from 500 to 4,000 m a pressure compensated Icone (Deep Water Icone) is available.

Specifications

Driving speed drive unit	20 mm/sec
Electrical motors	2 x 1,5 kW
Wheel diameter	Ø 1,000 mm
Footprint	2,300 x 2,300 mm
Height seabed frame	2,800 mm
Lifting point height	3,200 mm
Weight seabed frame	8,000 kg in air (excl. ballast)
Icone sizes/type	5, 10 & 15 cm ² / CPT or CPTU
DW Icone size	10 cm ²



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We reserve the right to change specifications without prior notice. ROSON and Icone are trademarks of A.P. van den Berg, Heerenveen. Patents apply for the ST-Rod with bayonet thread and the full ST-system which can be mounted on virtually any A.P. van den Berg pusher.