



ap
van den
berg

WISON-APB-Classic

wireline CPT system with 550 m depth rating

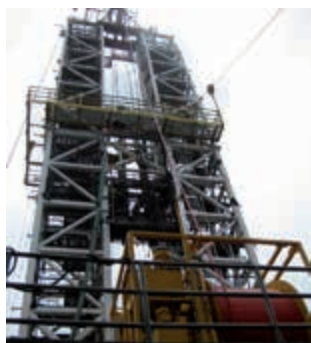


features

- proven wire line CPT system with a pushing force of 50, 100 or 150 kN
- water depth + drilling depth up to 550 m, CPT stroke up to 3 m
- suitable for 5, 10 and 15 cm² Icones
- Bottom Hole Assembly for multi-tooling
- suitable for soil sampling with the Push or Piston Sampler
- remote-controlled and electrical constant tensioning winch
- software for realtime data acquisition and control

**PROBE
THE 
FUTURE**

WISON-APB-Classic, wireline CPT system with 550 m depth rating



introduction

The WISON-APB system is basically a double-acting cylinder with the soil-testing instrument attached to the end of the piston rod. An umbilical is released from a remote-controlled and electrically driven constant tension winch on deck of the geotechnical drilling vessel and provides for 2-way

data transfer, electric power and hydraulic power to the tool.

designed for depths up to 550 m

The WISON-APB-Classic is capable of performing CPT's and taking soil samples at depths up to 550 m (water depth + drilling depth). It requires a drill string with an inner diameter of at least 4" (101,6 mm) and a drill tower clearance of 11 m. Its pushing tool is available in three versions: each with its own pushing capacity, length and stroke. The WISON-APB-Classic comes with an electric winch that is self-tensioning for heave compensation. The winch allows the tool to travel at a maximum speed of 2 m per sec inside the drill string.

digital Icone data acquisition system

The WISON-APB works in conjunction with A.P. van den Berg's digital Icone data acquisition system, consisting of the Icontrol and Icones. It enables measurement of cone resistance (q_c), local friction (f_s), 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 modules Conductivity, Magneto, Vane and Seismic are available for the WISON-APB-Classic.

soil sampling with Push or Piston Sampler

Sampling with the Push Sampler is performed by pressing a sample tube into the soil and retrieving it. With the advanced Piston Sampler the sample is guided by a piston and secured by an optional core catcher contributing to a higher recovery ratio. Both samplers can also be used with a hardened cutting shoe for an improved recovery ratio.

Bottom Hole Assembly for multi-tooling

A.P. van den Berg has a dedicated bottom hole assembly (BHA) to hold the WISON-APB-Classic tools. The WISON-APB tools can also be used with a BHA for multi-tooling. We cooperate with different partners to guarantee proper fitting of our tools with for example the S-Geobor system from Atlas Copco.

| Specifications tools | WISON-APB 50 kN | WISON-APB 100 kN | WISON-APB 150 kN |
|--------------------------|-----------------|------------------|------------------|
| Pushing force | 50 kN | 100 kN | 150 kN |
| Stroke length | 3000 mm | 1000 mm | 1600 mm |
| Total tool length | 9430 mm | 5430 mm | 8030 mm |
| Largest overall diameter | 90 mm | | |
| Minimal drill string ID | 4" (101,6 mm) | | |

| Specifications CPT and sampling | |
|---------------------------------|---|
| Icone sizes / type | Icone 5 cm ² , 10 cm ² & 15 cm ² / CPT or CPTU |
| Icone modules | Vane, Seismic, Conductivity & Magneto |
| Sample & tube length | 895 mm / 995 mm |

| Specifications self- tensioning winch | |
|---------------------------------------|-----------------------|
| Dimensions (l x w x h) | 2000 x 2100 x 2180 mm |
| Power supply | 25 kVA |
| Winch drum capacity | 600 m umbilical |
| Drum dimensions (inner x outer) | Ø 1220 mm x Ø 1900 mm |
| Total weight | 4500 kg |
| Winch max speed | 2 m/sec |
| Umbilical Safe Working Load | 20 kN |



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