



# Deep Water WISON-APB

wire line CPT equipment for water depths up to 3000 meter



## features

- single tool with click-on device for cones and samplers
- adjustable stroke up to 3 m and a thrust of 100 kN
- fast winch with automatic landing and recovery
- real time control and data acquisition through optical fibres
- modular design for easy maintenance
- environmentally friendly

# WISON-APB, wire line CPT equipment for deep water

## system

The deep water WISON-APB wire line CPT system comprises state-of-the-art technology and is well suited to operate in harsh offshore conditions. Its main components are a single multi purpose tool, a reinforced umbilical cable including fibre optics and an electric constant tensioning winch, allowing fast down hole operation. The system is modular in design, minimizing downtime with a reduced stock of spares. The deep water WISON-APB system is fully enclosed and does not affect the deep sea environment.



## multi purpose tool

The deep water thrust system is equipped with an easy click-on system, suitable various in-situ investigation devices. Changing between CPT and sampling can be done in minutes. The double acting stroke is adjustable in the range of 1 to 3 m. With a maximum force of 100 kN a constant penetration speed of 2 cm/sec can be maintained to comply with international CPT standards. The tool is powered by its own battery pack, providing it with clean power. It has an automatic electro-mechanical system for locking itself in the bottom hole assembly, which can be manually overruled. After a CPT the tool can be unlocked independently of the actual stroke reached. The deep water WISON-APB tool requires a drill string with an inner diameter of 4 1/4" (109 mm) and a drill tower clearance of 11 m. The tool itself consists of several modules that can be easily replaced for maintenance or repair.



Technical data of main components	
Tool length overall:	11 m
Minimum drill string ID:	4 1/4 (109 mm)
Winch dimensions:	4000x2200x2215 mm (lwxh)
Power supply:	380V/50Hz or 440V/60Hz, 55 kW

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## umbilical

The tool is deployed from a Kevlar reinforced high strength umbilical cable. The umbilical provides continuous charging of the battery module in the tool, also during down hole lowering and raising. It includes optical fibres for tool control and high speed communication of CPT data.



## constant tensioning winch

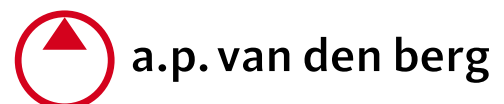
The winch combines automatic compensation for heave and cable tension, providing a down hole speed which is constant relative to the drill string. This results in high speeds both up and down, reducing the overall tool deployment time. The winch has an automatic landing and recovery mode, which requires a single button-push to complete a full down hole journey with locking or a full return journey including tool recovery. The electric winch is capable of storing a maximum of 3,200 m umbilical cable and is driven by a frequency controller. The winch has a maximum speed of 5 m/sec.

## operation

The system is operated from two touch screens in the control room. The first screen is used to control the winch and the tool. The winch can also be operated on deck by a hand held remote control. The second touch screen is used for real time data acquisition and includes the latest GOnsite! software.



Technical data of main components	
Adjustable double acting stroke	1-3 m
Thrust	85 kN nominal, 100 kN maximal
Umbilical Safe Working Load	40 kN
Winch capacity	3200 m max
Winch max speed	5 m/sec.



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