



Cone Penetrometer R140



System Description

The Roson 140 is designed for reliable operation in water depths of up to 1500 m. In its standard configuration, it delivers penetration depths ranging from 3 to 15 m, with optional configurations enabling up to 50 m of penetration. The Icone is advanced into the seabed at a constant rate of 2 cm/s, applying a maximum push and pull force of 140 kN.

A fully automated constant-tension winch manages the power and data umbilical, ensuring safe handling at all water depths and enhancing the efficiency of launch and recovery operations.

The R100 features a modular design with an adjustable weight range from 8.0 t to 19 t, making it suitable for deployment from smaller vessels or adaptable to varying seabed conditions. An optional mud skirt can be added to minimise sinkage and ensure the cone remains unloaded prior to testing, supporting accurate and consistent CPT data acquisition.

Technical Specifications

- **Maximum Push Force:** 140kN
- **Cone Type:** 10cm² Icone
 - Measures cone end resistance (qc), local friction (fs), and pore water pressure (u)
- **Weight:** 8.0t – 19.0t (adjustable)
- **Control System:** Dedicated DNV – certified control Container
- **Maximum Penetration Depth:**
 - Fixed Mast: 15m
 - Over-Side Platform: 50m
- **Power Requirements:** 3pH 63A 415V
- **System Dimension:** 2300 x 2300 x 2900mm
- **Height with 6m Mast:** 9.6m
- **Deployment:** Quick to mobilise
- **Design:** Robust, Powerful and Reliable
- **Click on modules:** Conductivity, Mag Cone, Vane & Seismic, T-bar



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