

Winch

Automated hydrographic and rheological equipment deployment

Deliverables

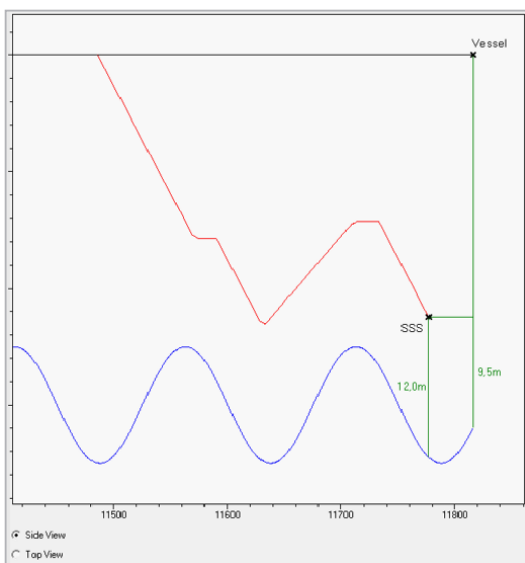
- Transfers data real-time
- Maintains hover altitude automatically
- Fully automated

The Winch is a compact size instrumentation winch steered with a PC based control unit that can be integrated with other sensors for fully automated operation.

Thus facilitating **both horizontal** as well as **vertical deployment** of hydrographical equipment.

The Winch system is designed to enable the highest productivity when acquiring water column data, fluid mud profiles amongst others. Working with equipment such as the RheoTune probe short turn-around times for nautical depth surveys.

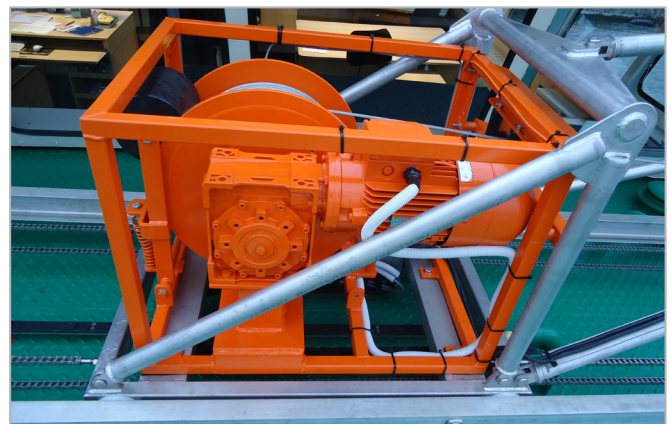
The design focuses on **fully automated measuring cycle** with sufficient guarantees for probe safety. Speed over ground and echo-sounder nadir depth input are combined with operator set thresholds to account for external factors when using in combination with Side Scan Sonars and other towed equipment.



Smart software enables user to gain insight in height above seabed of towed equipment.



Winch used to enable RheoTune measurements.



Winch installed on a moving frame.

Key features

- Programmable deployment
- Multiple equipment application
- Vertical and horizontal towed deployment functionality

Related products

RheoTune

Rental

Winch

Automated hydrographic and rheological equipment deployment

Specifications

Winch control

The Winch control menu can be used to operate the Winch. The switch on the handheld unit must be set to automatic. For correct use, a number of settings must be understood, and set correctly. The main-buttons for the Winch control are **Up**, **Down** and **Stop**. The probe lowering can be stopped automatically by using the stopping criteria in the settings menu of the Winch software.

Cable Out menu

This box shows the length of cable that is unrolled from zero cable out.

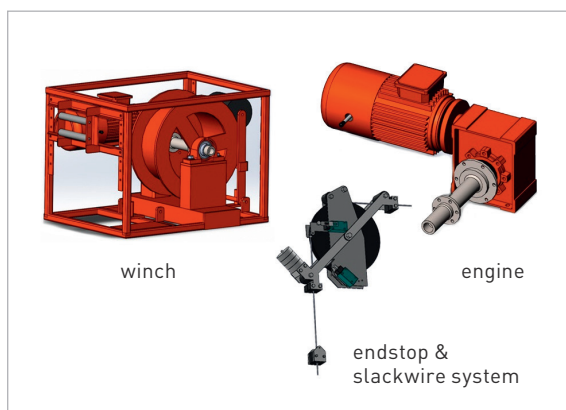
Zero (Button) menu

The zero-cable out value is used as the standby position of the winch. So, after a measurement is stopped, and UP is pressed, the probe is brought back up to this zero point.

Depth menu

Actual probe water depth display.

Note: in air it should indicate about 0.53 m.



Compact Winch designed to deploy and / or tow equipment like RheoTune, SVP and Side Scan Sonars.

Winch settings

Max SOG

Maximum Speed Over Ground. Measurements cannot be started when the drifting speed is too large.

High Speed

Speed used to quickly go to measuring depth. After the measurement the same speed is used to bring the probe back to the surface.

Slow Speed

Speed used below a certain depth in the expected silt layer.

Break Path

Vertical interval that is used to slow down the Winch from quick lowering (with high speed) to slow lowering (slow speed).

Stop Criteria:

Slack Wire

Stop when there is no more tension on the cable (info of 'slack' is received over COMport).

Tilt

Stop when the tilting (tipping over) exceeds [...] in degrees

Speed <

Stop when measured probe subsidence is slower than [...] in m/s

Density >

Stop when measured density exceeds [...] in g/L