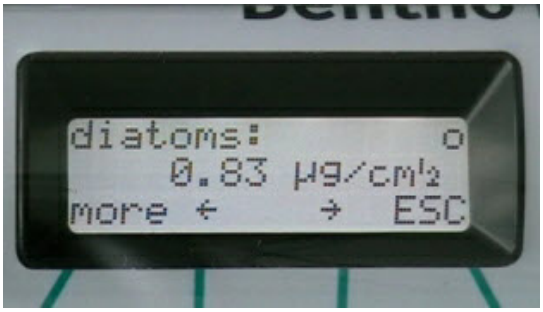
Benthic Algae & Classes

AlgSys: BenthoTorch

BenthoTorch used in the AQUAREHAB project in Denmark & Belgium



Direct read out

Features:

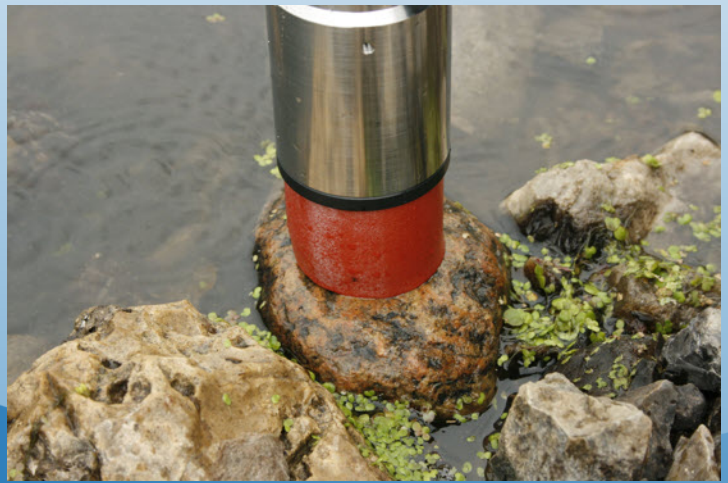
- Green, Blue-Green & Diatom Chla determination
- Automatic substrate compensation
- Hand held operation
- Internal data logging
- Touch pad operation
- Integrated instrument display
- Internal rechargeable battery
- No sample preparation
- PC software included
- GPS sensor as standard
- Cable free operation
- USB communication to PC/Laptop

Benefits:

- simultaneous determination of green algae, blue-green and diatoms
- no sampling or preparation
- rapid, portable operation
- result display on the instrument with internal memory

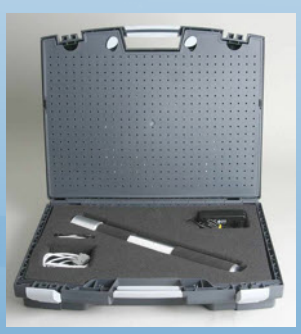
Applications:

- EU WFD ecological status assessment
- restoration / rehabilitation projects
- environmental monitoring
- limnological work
- research and education



Measurement of Benthic Algae on different substrates

BenthoTorch Measuring Head



Rugged carrying case

The **AlgSys: Benthotorch** measures benthic algae in real time and in-situ by utilising the fluorometric characteristics of the different algal pigments in the intact cell, hence requiring no sample preparation. The amount of red fluorescence arising from excitation at different wavelengths gives a quantitative estimate of the algal density and its classification. The Benthotorch is precalibrated for the most prominent algal classes in the field.
The torch is activated simply by inverting it and back again. A clearly presented menu enables one-step measurement by utilising the four touch sensitive keys by the display. After measurement initiation a count down timer is displayed and when finished, after ~ 15 seconds, a vibration alert is produced.
Its speed and simplicity of operation together with its robust engineering and on board data logging make it an ideal tool for satisfying the requirements of the water framework directive. The WDF states that the ecological status of water bodies should be regularly assessed. Since primary producers, which include Benthic algae, are fundamental to the water body condition it has effectively become obligatory to study the development and abundance of these organisms. Conventional methods for assessing Benthic algae cannot distinguish the different classes and are extremely time consuming and expensive to perform.

Technical Data

Measurands	
green algae	[µg chl-a/cm^2]
blue-green algae	[µg chl-a/cm^2]
diatoms	[µg chl-a/cm^2]
GPS co-ordinates	
Measuring range	0 - 10 µg chl-a/cm^2
Resolution	0.2 µg chl-a/cm^2
Weight	1.3 kg
Size (H x Ø)	500 x 60 mm
Power supply	110/230 V - 50/60 Hz - 12V DC
Sample temperature	0 - 30° C
Protection	IP68
Depth range	10 m
Interface	USB
Software	bbe data evaluation software for Windows
Memory capacity	1000 datasets

Ordering Information

BenthoTorch for measurement of benthic algae	BG36700-V
Telescopic rod for difficult access (0.95 - 2.8 m)	BG36030-V

Supplied by: Envitech Ltd. Unit 20, Lambourne Crescent, Cardiff Business Park, Llanishen, Cardiff CF14 5GF Tel: 02920 337134, Fax: 02920 337137, e-mail: sales@envitech.co.uk

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