



Innovation in Environmental & Process Technology

We **Understand** Water & Waster Monitoring

BBE Benthos Torch

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
- GPS sensor as standard
- PC software included
- Cable free operation
- USB communication to PC/Laptop



BenthosTorch used in the SQUAREHAB project in Denmark & Belgium



Rugged carrying case

Benthic Algae & Classes

Benefits:

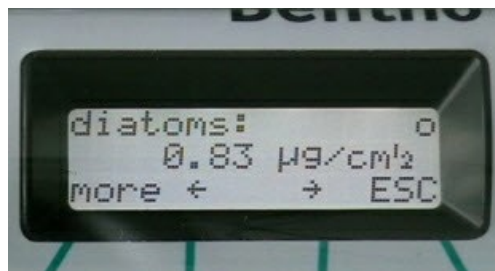
- Simultaneous determination of green algae, blue-green and diatom
- No sampling or preparation
- Rapid, portable operation
- Result display on the instrument with internal memory

Applications:

- EU WFD ecological status assessment
- Restoration / rehabilitation projects
- Limnological work
- Research and education
- Environmental monitoring



BenthosTorch measuring head



Direct readout



Measurement of Benthic Algae on different substrates

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The **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 pre-calibrated 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 WFD 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.

Analyser Performance	
Measurands:	Green algae: [$\mu\text{g chl-a/cm}^2$] Blue-green algae: [$\mu\text{g chl-a/cm}^2$] Diatoms: [$\mu\text{g chl-a/cm}^2$]
Measuring range:	0 - 10 $\mu\text{g chl-a/cm}^2$
Resolution:	0.2 $\mu\text{g chl-a/cm}^2$
Weight:	1.3 kg
Size (H x Ø)	500 x 60 mm
Power supply:	230 V / 60 Hz or 110 V / 50 Hz charger
Sample temperature:	0 - 30° C
Protection:	IP68
Depth range:	10m
Interface:	USB
Software:	bbe data evaluation software for Windows
Memory capacity:	1000 datasets

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

