METALYSER HM1000

Trace2O

METALYSER PORTABLE HM1000

PORTABLE HEAVY METALS ANALYSIS
ACCURATE TO PPB LEVELS

T2O

Contamination of our water resources by toxic heavy metals is becoming an increasing problem the world over. Widespread industrial and urban pollution is responsible for introducing these heavy metals into the environment. This problem is particularly acute in the developing world where unchecked industrial growth, lack of monitoring facilities and failure to enforce environmental regulations only serve to add to the severity of the situation.

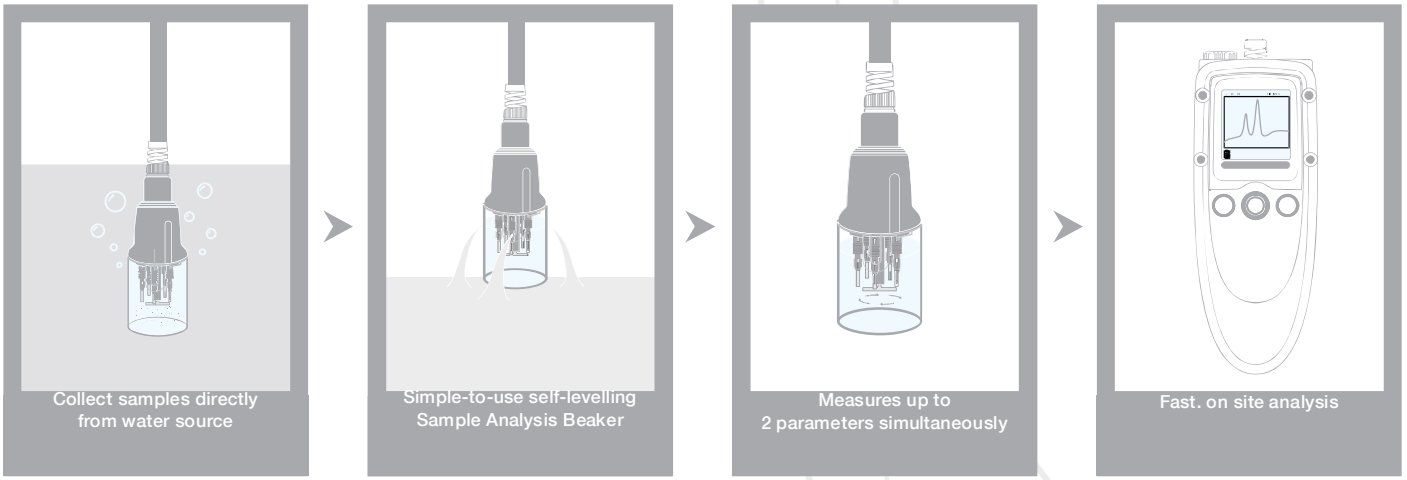
The Metalyser HM1000 has been designed specifically to allow easier, cost-effective monitoring of heavy metals most commonly associated with health and environmental problems.

Developed and manufactured solely in the UK, the Metalyser offers a breakthrough in terms of a simple-to-use field instrument that offers high levels of accuracy at an attractive price.

Analysis of heavy metals in water has traditionally been difficult in the field. By combining the proven method of Anodic Stripping Voltammetry (ASV) along with an innovative sonde design and a simple buffer delivery system, Trace$_2$o has developed an instrument that can finally deliver reproducible results on site.

The design of the Metalyser allows for the addition of future parameters, without the need to upgrade the instrument. 10 of the more common parameters are currently available for analysis using the HM1000.
Patent No. GB2481541

SIMPLE ANALYSIS



BENEFITS

- Field based detection of heavy metals in water to low ppb concentrations providing data at site
- Rapid results allowing immediate action on remediation
- No complicated sample preparation or analysis procedures in the field allowing non-technical personnel the ability to gain lab-comparable results
- Step-by-step pictorial guides allowing non-experienced personnel the ability to use the instrument quickly and easily without reading in-depth manuals
- Low cost per test
- No PC required for sample analysis
- Rugged and durable instrumentation built for tough environments allowing operation even in adverse weather conditions
- Ability to measure 10 parameters As (total), As (III), Cd, Cr, Cu, Pb, Hg, Mn, Ni, Zn

FEATURES

- Robust, dustproof and waterproof design to IP67 standard
- User removable electrodes
- Internal data logger with memory for 1000 results
- USB connectivity
- Windows based analysis software
- LCD graphical display
- Joystick cursor control
- Multiple power options - rechargeable battery/ mains AC/ vehicle cigarette lighter socket
- Integral self-levelling Sample Analysis Beaker (SAB)
- Software expandable for further parameters
- Multi-lingual user interface

SONDE

The uniquely designed submersible sonde utilises the familiar three electrodes system, comprising reference, counter and working electrode.

In addition, the sonde incorporates a stirrer, temperature probe and space for an extra two working electrodes. This allows multi-parameter measurement within a single unit, without the use of a computer.

The intelligent unit (capable of storing 1000 results) will select the electrode accordingly for the metal of interest.

- Maintenance-free electrodes
- Push fit removable electrodes
- Integral temperature sensing
- Up to 3 working electrodes in one sonde

your first formula

SPECIFICATION

OPERATION	Analytical principle: Anodic & Cathodic stripping voltammetry using disc working electrodes Parameters measured: Arsenic (III), Total Arsenic, Cadmium, Chromium, Copper, Lead, Manganese, Mercury, Nickel & Zinc Operating Temperature: -20°C to +70°C
DATA	Results obtained in 5 minutes Internal memory: 1000 data sets with facility to enter sample number, time and date Transfer via USB to PC New application methods can be downloaded to the unit via USB
USER INTERFACE	LCD full graphics backlit display: 128 x 128 pixels Joystick cursor control Menu driven software
POWER	Rechargeable battery providing in excess of 50 tests per charge Alternative power supply via mains adaptor or vehicle cigarette lighter
APPROVALS	Waterproof to IP67; CE Mark
KIT	Dimensions: 470mm (L) x 370mm (W) x 170mm (D) Net Weight: 9kg

LIMITS OF DETECTION (FRESH WATER)

Parameter		Lower Limit (ppb)	Upper Limit (ppb)	WHO Guideline Value (ppb)
Arsenic (III)	As (III)	5	500	<10
Total Arsenic	As (Total)	10	500	<10
Cadmium	Cd	3	500	<3
Chromium	Cr (VI)	50	500	<50
Copper	Cu	5	500	<2000
Lead	Pb	5	500	<10
Manganese	Mn	5	200	<100
Mercury	Hg	5	500	<6
Nickel	Ni	10	100	<70
Zinc	Zn	5	500	<4000

ORDERING INFORMATION

- HM1000 - Metalyser Portable
  Complete with Sonde assembly, electrodes, consumable kit, buffers and standards for 50 tests each of; Arsenic, Cadmium, Lead, Mercury, Copper and/ or Zinc. Supplied in a hard-shell carry case.

Consumables

- For information on consumables available please ask when ordering or visit www.trace2o.com.

Lower limits achievable using the handheld at 60 seconds deposition. Increased accuracy can be achieved by setting the deposition time to 120 seconds.

Repeatability at 20ppb ±5% with Metaware, ±7.5% with handheld. Accuracy dependent on element measured, sample matrix and type.

Trace$_2$o Limited
Technology Centre, Unit 4, Transigo, Gables Way,
Thatcham, Berkshire, RG19 4ZA, United Kingdom

Tel +44 (0) 1635 866772
Fax +44 (0) 1635 873509
sales@trace2o.com
www.trace2o.com

Trace$_2$o

ISO 9001 REGISTERED FIRM