



# METALYSER® HM1000

## Portable Rapid Trace Heavy Metal Analyser

Accurate field measurement of trace levels of toxic heavy metals is essential for an effective pollution monitoring programme.

With laboratory methods, time delays from sampling to results mean that pollution problems can continue before being identified and rectified, often for days, before being identified and rectified. With the Metalyser® HM1000, samples can be analysed in as little as five minutes from collection, allowing for immediate corrective action.

The modern environmental professional requires a compact, light-weight portable kit, with non-hazardous reagents, a simple operating procedure, and an intelligent handheld unit with built-in data analysis functionality, which offers accurate results comparable with laboratory techniques.

The Metalyser® HM1000 Portable trace heavy metals analyser range from Trace2o® offers a powerful suite of heavy metal tests that can be utilised both in the field and laboratory for consistent and reliable water quality analysis. Using a powerful electrochemical analytical technique, the Metalyser® HM1000 is perfect for obtaining laboratory-quality results quickly in the field, even in the most challenging environments.



**SPECIALIST MANUFACTURERS OF ENVIRONMENTAL  
ANALYSIS AND MONITORING EQUIPMENT**





## BENEFITS



- ⊙ Reduce reliance on expensive laboratory equipment or unreliable outsourcing, by obtaining laboratory-quality results in the field
- ⊙ Save time and money with rapid results at source across a wide range of heavy metal parameters
- ⊙ Reduce fatigue with the lightweight, ergonomic and easy to hold handheld unit
- ⊙ Save money on equipment costs and maximise utility of a single instrument with an extensive range of expansion kits that can easily be combined with an existing HM1000 system



- ⊙ Reduce worry of damage in the field due to the impact resistant reinforced digital screen
- ⊙ No need for additional accessories; the Metalysers® HM1000 kit contains all equipment, accessories and consumables required for analysis straight out of the box

- ⊙ No loss due to accidental drops into water sources. The Metalysers® HM1000 floats and is IP67 rated
- ⊙ Measure in any ambient light with the backlit graphical LCD display
- ⊙ Reduce training time and costs with helpful step-by-step application notes and intuitive menu system
- ⊙ High levels of stock at the Trace2o® warehouse means kits can reach the field fast, avoiding delays on your valuable results



- ⊙ Avoid loss of data by using the 1000 datapoint memory storage on the unit
- ⊙ Rapid deployment in the field due to its small size, and lightweight hard-shell carrying case
- ⊙ Communicate with your Laptop and store data using USB connectivity





## IN YOUR KIT

IN YOUR KIT	QTY
Single black IP68 waterproof case	1
HM1000 instrument	1
Metalyser sonde	1
WE1 working electrode	1
WE2 working electrode	1
Reference electrode	1
Counter electrode	1
Cd, Pb standard	1
Hg standard	1
As standard	1
Cu standard	1
Zn standard	1
Electrode rinse solution	1
Reference electrode fill solution	1
Hg plating solution	1
Au plating solution	1
HM1 buffer (50 tests)	2
HM2 buffer (50 tests)	1
HM3 buffer (50 tests)	1
100 - 1000ul pipette	1
Pipette tips (100 - 1000ul)	50
Cd, Pb,Cu, Zn analysis beaker	1
Polishing dish with glass platen	1
Polish cloth (pack of 5)	1
Polishing slurry 30ml	1
Nalgene 250ml beaker	2
Stirrer oil	1
Hg, Au analysis beaker	1
Cable clamp	1
Mains charger (US, EU, UK, IEC, AUS)	1
Car charger	1
USB lead	1

DESCRIPTION	PACK SIZE	PART NUMBER
Metalyser® Portable HM1000	Unit	HM1000
<b>EXPANSION KITS</b>		
Portable UV Digester HMUV1825P- 240V	Unit	HMUV1825P-240
Portable UV Digester HMUV1825P- 110V	Unit	HMUV1825P-110
Portable Soils Extraction Kit	Unit	HMPSEK
Portable Metalometer® Kit	Unit	HMPHOT
UV Digester Portable Power Pack	Unit	HMUVPP





## TECHNICAL SPECIFICATIONS

<b>Dimensions (mm)</b>	⊙ 487 x 386 x 229
<b>Weight (Kg)</b>	⊙ 9
<b>Approvals</b>	⊙ CE Conformity, IP68
<b>Country of origin</b>	⊙ United Kingdom
<b>Data</b>	<ul style="list-style-type: none"> <li>⊙ 1000 data set storage</li> <li>⊙ Data upload via USB to PC</li> <li>⊙ Real-time date/time stamp</li> <li>⊙ Method update download to unit via USB</li> </ul>
<b>Analytical principle</b>	⊙ Anodic and cathodic stripping voltammetry using disc working electrodes
<b>Parameters measured</b>	⊙ Arsenic (III), Arsenic (III + V), Cadmium, Chromium (VI), Copper, Lead, Manganese, Mercury, Nickel, Zinc
<b>User Interface</b>	<ul style="list-style-type: none"> <li>⊙ Backlit LCD full graphical display, 128 x 128 pixels</li> <li>⊙ Joystick cursor control</li> <li>⊙ Menu driven software</li> </ul>
<b>Portability</b>	<ul style="list-style-type: none"> <li>⊙ IP68 rated waterproof case</li> <li>⊙ Buoyant</li> <li>⊙ Hard Shell carry case</li> </ul>
<b>Protection</b>	<ul style="list-style-type: none"> <li>⊙ Pressure resistant reinforced screen</li> <li>⊙ Hard shell case</li> <li>⊙ Chemically resistant housing</li> <li>⊙ Case floats in water</li> <li>⊙ IP68 water and dust proofing</li> </ul>
<b>Operating temperature</b>	⊙ -20°C to 70°C
<b>Power supply</b>	<ul style="list-style-type: none"> <li>⊙ Rechargeable Li-ion battery, &gt; 50 tests per charge</li> <li>⊙ Alternative power supply via mains adaptor or vehicle cigarette lighter</li> </ul>
<b>Manufacturer's warranty</b>	⊙ Standard 1 Year from purchase

### Limits of detection

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

The Technology Centre, Station Road, Thatcham, Berkshire, United Kingdom, RG19 4HZ

T +44 (0)1635 872929 | [info@wagtechprojects.com](mailto:info@wagtechprojects.com) | [sales@trace2o.com](mailto:sales@trace2o.com)

[www.wagtechprojects.com](http://www.wagtechprojects.com) | [www.trace2o.com](http://www.trace2o.com)