

SPECIFICATION

OPERATION	Analytical principle : Anodic & Cathodic stripping voltammetry using disc working electrodes Measuring techniques : Square wave, differential pulse, linear sweep, cyclic voltammetry Operating temperature : 0 to +70°C
DATA EVALUATION	Peak height, base line subtraction, standard addition, calibration curve, linear regression / spreadsheet calculation
USER INTERFACE	Full PC control via USB and Bluetooth Metaware benchtop graphical control software
POWER	12-15V DC (Optional battery back-up)
APPROVALS	CE Mark
WEIGHT/DIMS	3.5Kg, 200 x 370 x 210mm

PRE-LOADED METHOD FILES

Arsenic, Cadmium, Chromium, Copper, Lead, Manganese, Mercury, Nickel and Zinc

MEASURING RANGE

ppm to <1 ppb levels. Dependent on sample type, preparation and operating settings

SAMPLE TYPES\*

Fresh water, sea water, river water, waste water, sewer water, potable water, factory effluent, food, beverages, textiles, plastics, biological and other measurable samples

\*Sample types may require digestion, extraction, dilution and/or pre-treatment

ORDERING INFORMATION

> HM5000 - Metalyser Benchtop  
Instrument supplied complete with power supply, PC Software, USB Cable, sample cups and pre-loaded method files. (PC, buffers, standards and conditioning solutions ordered separately)

Consumables

- > HMC301200 -M1, M4 & M5 Buffer and Standards Pack for 200 tests (Cd, Pb, Cu, Zn)
- > HMC302200 -M2 Buffer and Standards Pack for 200 tests (Hg)
- > HMC303200 -M3 Buffer and Standards Pack for 200 tests (As)
- > HMC306200 -M6 Buffer and Standards Pack for 200 tests (Mn)
- > HMC307200 -M7 Buffer and Standards Pack for 200 tests (Cr)
- > HMC308200 -M8 Buffer and Standards Pack for 200 tests (Ni)
- > HMC309200 -M9 Buffer and Standards Pack for 200 tests (Bi)
- > HMC310200 -M10 Buffer and Standards Pack for 200 tests (Co)
- > HMC311200 -M11 Buffer and Standards Pack for 200 tests (Au)
- > HMC312200 -M12 Buffer and Standards Pack for 200 tests (Fe)
- > HMC313200 -M13 Buffer and Standards Pack for 200 tests (Sn)

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# METALYSER BENCHTOP HM5000



LABORATORY BASED  
HEAVY METALS ANALYSIS  
ACCURATE TO PPB LEVELS



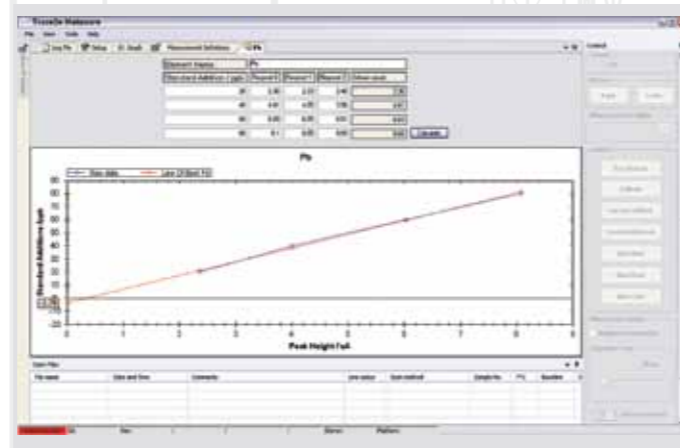
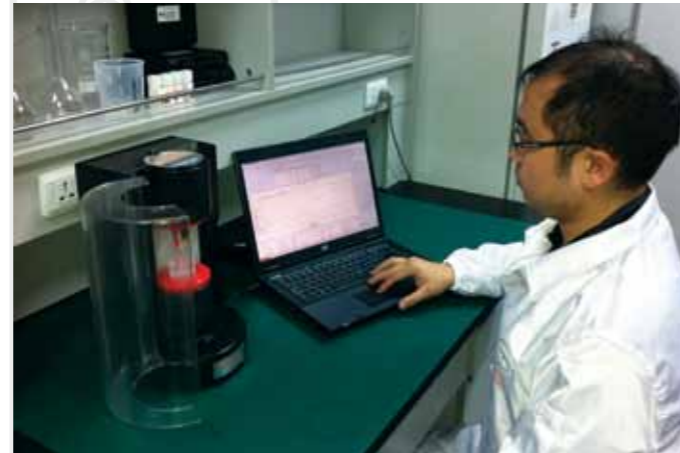
Laboratory-based analysis of heavy metals has traditionally been complex and expensive, requiring dedicated installations and experienced operators.

Trace<sub>2</sub>o offers a unique solution with our Metalyser HM5000 Benchtop analyser. With no costly installation expenses and an easy-to-use interface, the HM5000 is the instrument of choice for novice to advanced users, offering a realistic and economic alternative to AAS and ICP.

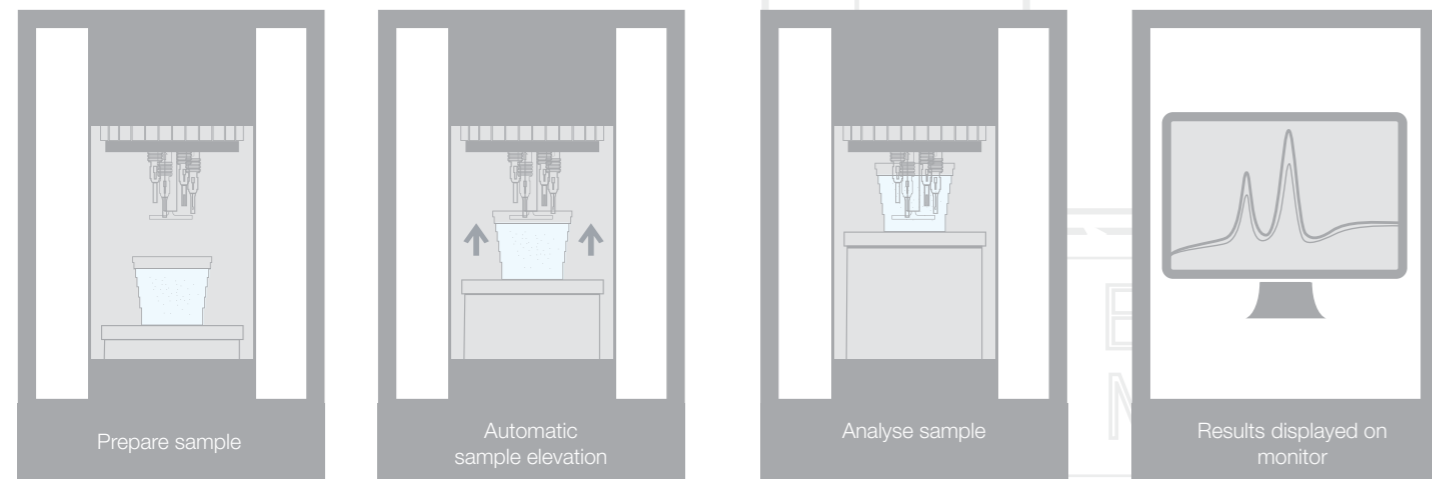
The instrument has been designed with several features to overcome the traditional challenges found in voltammetric analysis. The high-quality electrochemical cell is integrated into a statically dissipative enclosure, thus minimising electromagnetic interference. The innovative nitrogen sample purge diminishes interference from oxygen, whilst the automatic elevation platform reduces sample disturbance, improving repeatability.

Our bespoke Metaware software offers the experienced analyst full control over electrochemical methods. The software allows the user to change time and voltage variables, as well as offering a range of stripping techniques, i.e. square wave, differential pulse, linear sweep and cyclic voltammetry.

The HM5000 Benchtop comes complete with power supply, PC software, USB Cable, sample cups and a starter pack of pre-loaded method files. The Bluetooth connectivity also enables the user to remotely control the instrument away from possible spills and hazardous chemicals.



#### SIMPLE ANALYSIS



#### BENEFITS

- Laboratory based analysis of heavy metals in solution from ppm to low ppb levels
- Complete control over voltammetric parameters allowing advanced users to customise their analysis and the ability to develop their own methods
- Minimal set-up costs with no expensive gas lines, extraction or temperature-controlled environment needed. Unlike AAS or ICP
- Pre-loaded starter kit of method files included for easy analysis by users of any ability
- Method file compatibility with HM1000 means user developed parameters can be adapted for in-field use
- Increased ability to handle differing sample matrices
- Overall economical alternative to traditional techniques. Low capital and running costs

#### FEATURES

- Bluetooth connectivity to protect PC from spills and hazardous chemicals
- PC control via enhanced version of Metaware facilitating user method development
- Auto or manual Peak calculation with 3 point standard addition calculation table
- Power via 12V mains adapter or 12V battery
- Square wave, differential pulse, linear sweep and cyclic voltammetry techniques available
- Methods for As, Cd, Cr, Cu, Hg, Mn, Ni, Pb and Zn included as standard

#### ELECTROCHEMICAL CELL

- High quality plastic enclosure manufactured from static dissipative materials to minimise external electromagnetic interference and dust accumulation
- Three electrode replaceable sensor module with temperature probe and integrated stirrer
- Unique nitrogen\* purge facility for oxygen environment (\*nitrogen cylinder to be purchased separately)
- Remote sample cup lift to minimise sample disturbance

