

HERACLES Electronic Nose is a smell and Volatile Organic Compounds (VOC) analyzer. It can be used with manual sampling or autosampler.

It is available in 2 configurations: laboratory and on-field. Its detection system uses ultra fast gas chromatography.

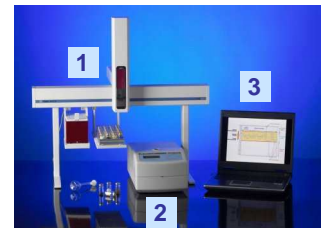
## System features

### 1 Sampling: several configurations

- Headspace autosampler
- Headspace & liquid autosampler
- Manual gas & liquid syringe

### 2 Heracles unit: features

- Two capillary columns, 2m length, 100  $\mu$  to 320  $\mu$  ID,
- Fast column pressure and temperature programming, with column temperature control from ambient air to 300°C at 0.1 to 20°C per second
- Two Flame Ionization Detectors (FID)
- Carrier gas supply, 60 to 80 PSIG, 99,995 % H<sub>2</sub> at up to 50 ml/min
- Air generator for FID
- Temperature controlled solid sorbent trapping injector (ambient to 300°C)
- Heated inlet vacuum pump sample introduction onto a sorbent trap for gas samples
- Heated inlet with internal carrier gas purge of injector for use with SPME
- Liquid inlet for syringe injection of organic and aqueous liquids
- Compact: w,d,h: 9.25" x 15.5" x 7" (23.5 x 39.7 x 17.8 cm) - weight: 10 lbs (4.5 kg)



*Lab configuration*

### 3 Data processing and instrument control

Comprehensive data processing with a software package including chromatography functionalities and fingerprint charts (Radar plot, SQC, PCA, DFA, PLS, SIMCA)

#### ▪ Operating Environment

- Temperature range: 0°C to 35°C
- Storage temperature range: -20°C to 60°C
- Relative humidity range: 0 to 100 % (non condensing)

#### ▪ Performance

- Repeatability of 1 to 3% in quantitative determinations
- Repeatability of 0.1 to 0.3% in retention times
- Fast analysis time for VOCs < 20 sec., for SVOCs < 60 sec
- High sensitivity (ppm range)

#### ▪ Sample requirements

- Air or gaseous samples to 0 to 30 psig at ambient temperature
- Water or soil gas for VOC/ SVOC analysis,
- Membrane, SPME, P&T & SPDE,
- Analytes in organic solvents
- Aqueous samples and neat organic liquids for direct injection



*On-field configuration*