



Aquapod

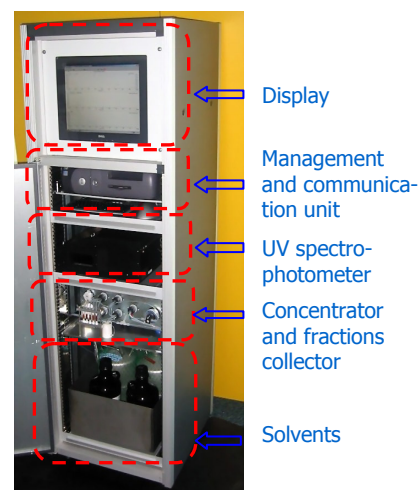
On line water analyser



Hocer designs, manufactures and markets on-line water monitoring stations which detect, measure and quantify chemical parameters up to ppb/l. levels.

Applications

- Accidental or chronic pollution warning
- Unattended alarm station
- Decision support (process control & running)
- Quality control of the produced water
- Fresh water monitoring
- Self monitoring



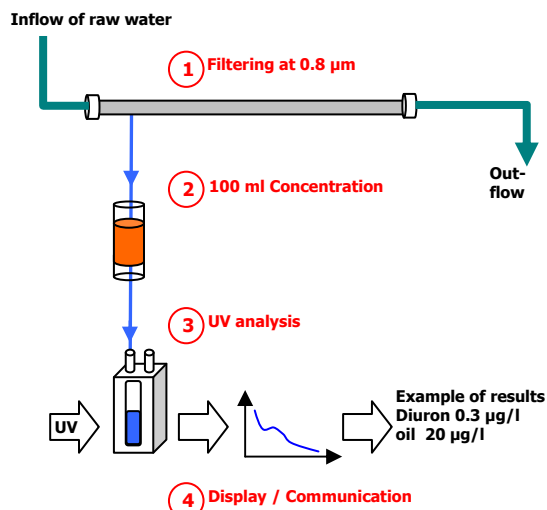
Pollutants and parameters

Detected pollutants ($\mu\text{g/L}$)				Others	
Pesticides	Hydrocarbons	Industrial products	Others	Direct measurements	Physicochemical parameters
Triazines	Diesel oil	PAH	Liquid manure	COD	Temperature
Substituted urea	fuel	Phenols	Purification stations releases	BOD	Conductivity
Organophosphates	Unleaded Gas 98	BTX	Microcystines	Nitrates	pH
Amids	Unleaded Gas 98			Détergents	Dissolved Oxygen
					Turbidity/Chlorophyll

Results ($\mu\text{g/l}$) ~ from ISO-15839 standard

Quantification limit	Atrazine	Diuron	Isoproturon	DEA	Chloroproturon
Laboratory (Evian water)	0,10	0,20			
Insitu in raw water	0,24	0,21	0,38	0,35	0,21
Insitu in treated water	0,08	0,13	0,06	0,08	0,13

Aquapod technology



Aquapod measurement is based on the combination of a process that separates and concentrates pollutants during a solid phase (SPE Solid Phase Extraction) coupled with a UV spectrometry analysis of the concentrated solution (concentration module patented by Hocer)
 Aquapod measures at two levels of sensitivity :

After concentration : the sensitivity level is approximately $\mu\text{g/L}$ (ppb), varying slightly depending on the compounds. The analysis frequency is approximately of 1 every 45 minutes, depending on the used concentration protocol . Quantification levels vary from $0.2 \mu\text{g/L}$ for some molecules (Atrazine, Diuron) to several $\mu\text{g/L}$ for total hydrocarbons. These levels are lowered when the water has a weak, dissolved organic material rate (drinking water, fresh water, etc.)

Without concentration (raw water) : UV spectrum analysis makes it possible to work at higher frequencies (1 analysis every 5 minutes) and at a sensitivity level of approximately mg/L (ppm) to measure nitrates, detergents, dissolved organic materials, and suspended particles.

Features

AQUAPOD	SENSITIVITY on POLLUTANTS			OPTIONS	
	From 0,05 $\mu\text{g/l}$ at 10 $\mu\text{g/l}$	From 10 $\mu\text{g/l}$ at 1 mg/l	> to 1 mg/l	Direct Measurements	Physico-chemical
AQUAPOD MP				Option	Option
AQUAPOD SA				Option	Option
PROBE					Option
Analysis frequency	Programmable				
Note: Combinations are possible to increase rates and/or applications					

Features

Hydraulic supply :	pre-filtered waters at 1mm , minimum flow rate 300 L /h pressure 1 to 3 bars
Electric supply :	220 V 50Hz 200 watts
Measurement range :	from 0,10 to 500 $\mu\text{g/l}$
Operation autonomy :	250 analyses (several weeks to months depending on frequency)
Analysis frequency:	Programmable—45 minute cycle in fresh water and 90 minute cycle in drinking water
Detection :	UV/visible spectrophotometer 190 to 320 nm, 2 min constant bandwidth
Computer system:	PC Windows 2000, CD Rom drive, key USB Key, 15"screen , TrackBall
Running and communication :	Modbus and/or dry contacts
Aquapod dimensions :	172H x 60 L x 60 W
Operating temperature :	5 to 30°C for air et 0 to 35°C for water & Humidity : 0 to 99%
Consumables :	Halogen and deuterium lamp for spectrophotometers Solvents (water, acetonitrile and methanol) and SPE cartridges
Options :	Supervision par PC Anywhere, direct measurements, sampler of concentrated fractions and pre-filtration deck

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