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POLLUTION MEASUREMENT

TOC3000

WATER QUALITY

WATER QUALITY

VALIDATED OVER THE YEARS IN A LARGE FIELD OF APPLICATION

- Solvay
- Rhodia
- Ineos
- FPG Taïwan
- Ciba Geigy
- Sanofi
- Aventis
- PPG
- Arkema
- Asahi Glass
- De Nora
- Total
- Samsung
- Coca Cola
- Lafarge
- Mitsubishi
- Petro Bras
- Alstom...

APPLICATIONS

Drinking water

Quality control at all stages : treatment, storage, distribution

Surface water

Study and design of surface water monitoring stations

Waste water

Monitoring of industrial or urban waste water

Process water

Quality control of process water

Oil & Water

Oil in Water Detection & Water in Oil storage tanks

PARAMETERS

TOTAL CHLORINE
FREE CHLORINE
MORPHOLINE
PHOSPHATES
AMMONIA
HYDRAZINE
COLOUR
PHENOLS
SILICA...

CHROMIUM VI
MANGANESE
ALUMINIUM
COPPER
NICKEL
IRON
LEAD
ZINC...

HARDNESS
THT
TA
TAC ...

CHLORIDES
CYANIDES
FLUORIDES
SULFIDES
ARSENIC
SULFATES ...

CERTIFICATIONS

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POLLUTION MEASUREMENT

QUALITY MANAGEMENT SYSTEM
ISO 9001:2008
CERTIFIED

Ex
ATEX

IMO
INTERNATIONAL MARITIME ORGANIZATION

BUREAU VERITAS
1828
L C I E

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POLLUTION MEASUREMENT

PROCESS CONTROL

Manufacturing industries

Drinking water

ONLINE water quality monitoring solutions for upstream and downstream purification processes.

Ensure the optimal quality all along the manufacturing and distribution network.

Process water

Integrated solutions for real-time water quality measurements suited to industrial processes.

ENVIRONMENT

Environmental protection and pollution control.

Surface water

REALTIME Monitoring stations or mobile laboratories, for the protection of surface water, spring water, rivers and groundwater.

Sea water

Prevention of sea water by hydrocarbon wastes: Oil tankers, Oil Rigs, Refinery wastes.

WATER QUALITY

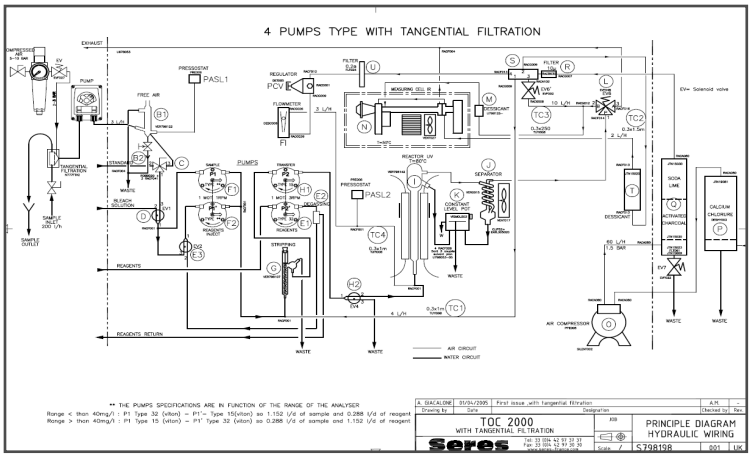
REFERENCES

Environment Organizations, Water production & treatment, Oil & Gas, Petrochemical industry, Refineries, Power stations, Paper mills, Metal, food and other industries, Oil rigs, Tankers, Etc …

AquaGas Scope of supply

From a stand alone analyser to a complete monitoring station (stationary or mobile) , AquaGas supplies turnkey systems fully integrated meeting the Australian standards and matching the exact project requirements.

Our system are delivered with a full set of documentation and a minimum warranty of one year which includes 24h/7 days email and phone support.



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POLLUTION MEASUREMENT

WATER QUALITY

TOC3000 ONLINE WATER QUALITY ANALYSER

TOTAL ORGANIC CARBON

Description

TOC 3000 analyser is designed for **Total Organic Carbon** automatic and continuous monitoring in water or liquid effluents. Based on the **EPA approved method** it implements UV persulphate oxidation and detection of generated carbon dioxide with a Non Dispersive Infrared Analyser.

This method also meets requirements of European ISO/CEN guidelines and is conform to EPA, DIN, CE, ASTM, NAMUR regulations.

Applications

Industries: waste water, influents and effluents, laboratory analysis, condensate and cooling water, cleaning process, organic chemical discharge, water treatment plant, Pharmaceutical water

Food & beverage drinking water, water purification, cleaning process

Oil & Gas: refineries, oil exploration

True ONLINE TOC monitoring

SERES environnement

PARAMETERS

- COMPACT CASE FOR EASE OF INSTALLATION
- LOW REAGENT CONSUMPTION
- HIGH STABILITY NDIR ANALYSER
- EPA APPROVED METHOD
- BUILT-IN ZERO AIR GENERATOR
- BATCH ANALYSIS WITH PROGRAMMABLE FREQUENCY
- FAST RESPONSE
- HIGH PRECISION AND REPEATABILITY
- 12VDC OR 230VAC POWER SUPPLY
- LOW OPERATING COST / LOW MAINTENANCE

Fully automated online analyser

ANALYSIS METHOD

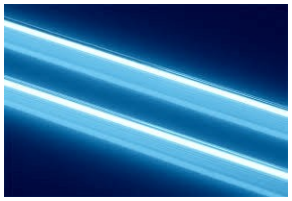
The standard method for measuring **TOC in water** using Non directive infra-red absorption can be broken down in 4 successive steps :

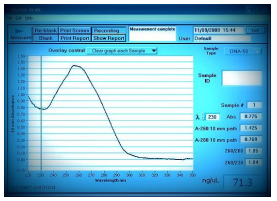
1 **Sampling** : Mineral Organic carbon eliminated by acidification and degasing

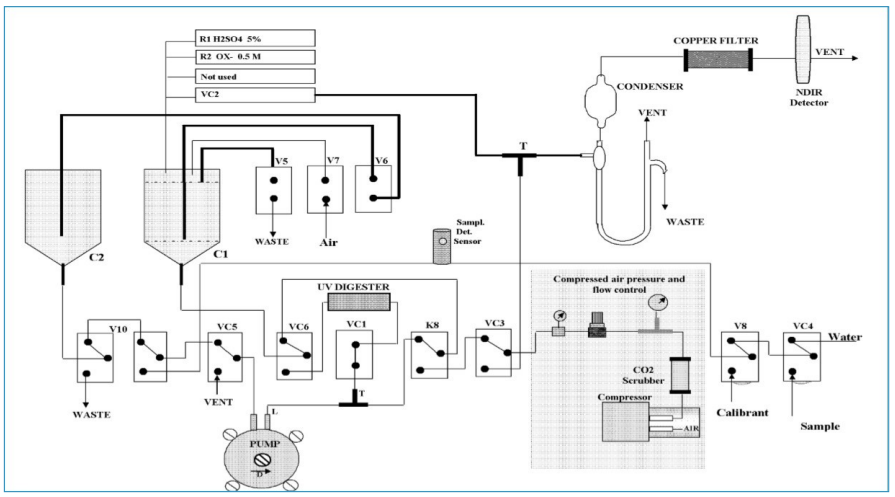
2 **Extraction** : Oxidation of the Organic Carbons in CO2 by UV in presence of sodium persulfate

3 Separation : Separation of the CO2 from the sample

4 Reading : CO2 measurement by NDIR.







TOC3000 Specifications

CONSTRUCTION & ENVIRONMENT

Dimensions	Wall cabinet: 450 x 800 x 300 mm (W x H x D)
Weight	33 kg approx.
Environment & Protection	IP55 - Installation in safe and sheltered area, away from corrosive atmosphere
Ambient T°	5 to 40°C
Relative humidity	10 to 80%

ELECTRICAL UTILITIES

Power supply	12VDC or 110 - 240 VAC 50 / 60 Hz
Consumption	Typical 150 VA - Maximum 300 VA

ANALYSIS

Parameters	Refer to list on reverse page / Consult
Range	From 0-5mg/l to 1000mg/l (other on request)
Method	Total Organic Carbon (TOC) measurement after TIC removal by acidification, sodium persulfate UV promoted oxidation, CO@ detection by Non dispersive IR detector
Cycle duration	13-15 min depending on the range
Detection Limit	Typically better than 3% of the full scale, calculated as per EPA standards
Repeatability	Less than 3% end of range

CONNECTIVITY, ALARMS & COMMUNICATION

User interface	PC104 industrial standard, integrated keyboard and graphics display
Data retrieval	Transfer via USB port
Outputs	4 - 20 mA, galvanic insulation
Inputs	2 dry contact: Analyse and calibration

SAMPLING

Preparation	Filtration if needed / Dilution, depending on application
Sample inlet	Pressure free

OPERATION

Self-cleaning	An automatic cleaning sequence is performed at the end of each analysis, to clean-up the hydraulic circuit
Zero calibration	Built-in air generator produces the carrier gas for oxidation and detection stages. The air is purified with an internal soda lime filter.
Reagent consumption per analyse	Acid 5% 0.9 ml Oxidizing 0.5M 0.9ml Deionised water 45ml
Measurement type	Batch analysis with programmable frequency

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POLLUTION MEASUREMENT

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50 years of EXPERTISE in ONLINE MONITORING

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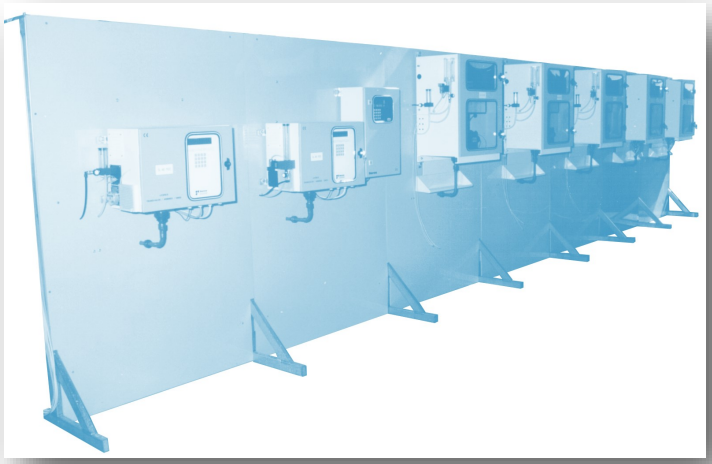


SERES environnement

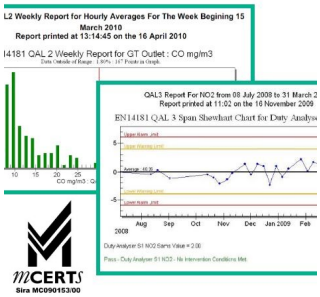
AquaGas Products and Services

CEMS

System INTEGRATION
& Innovative
SAMPLING solutions

STACK TESTING

Portable equipment
for short term
measurement



DATA ACQUISITION

States EPA approved
Data Acquisition and
Handling Software

ONSITE

Maintenance
commissioning
Training

AQUAGAS SYSTEM INTEGRATION

More than 14 years of experience in **environmental monitoring**, AquaGas commitment in implementing innovative, reliable and cost effective solutions is undeniable. Our main focus is to meet your application requirements in due time while maintaining high quality service and relationship.

We have the **skills, products and services** in house with a full dedication to your monitoring needs, so please contact us when it comes to **environmental monitoring and industrial analysis**.

SERES Environnement analysers

SERES Environnement (FRANCE) is one of the major actors in the field of online analysis dedicated to **Water Quality Monitoring** in the industry and the environment. Outstanding experience, attentiveness, innovative and effective solutions are the strengths of SERES while meeting everyday challenges.

The ideal partner for Australian water quality monitoring.

Contact Us

Give us a call for more information about our services and products

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POLLUTION MEASUREMENT

INTEGRATED SOLUTIONS TO MONITOR OUR ENVIRONMENT