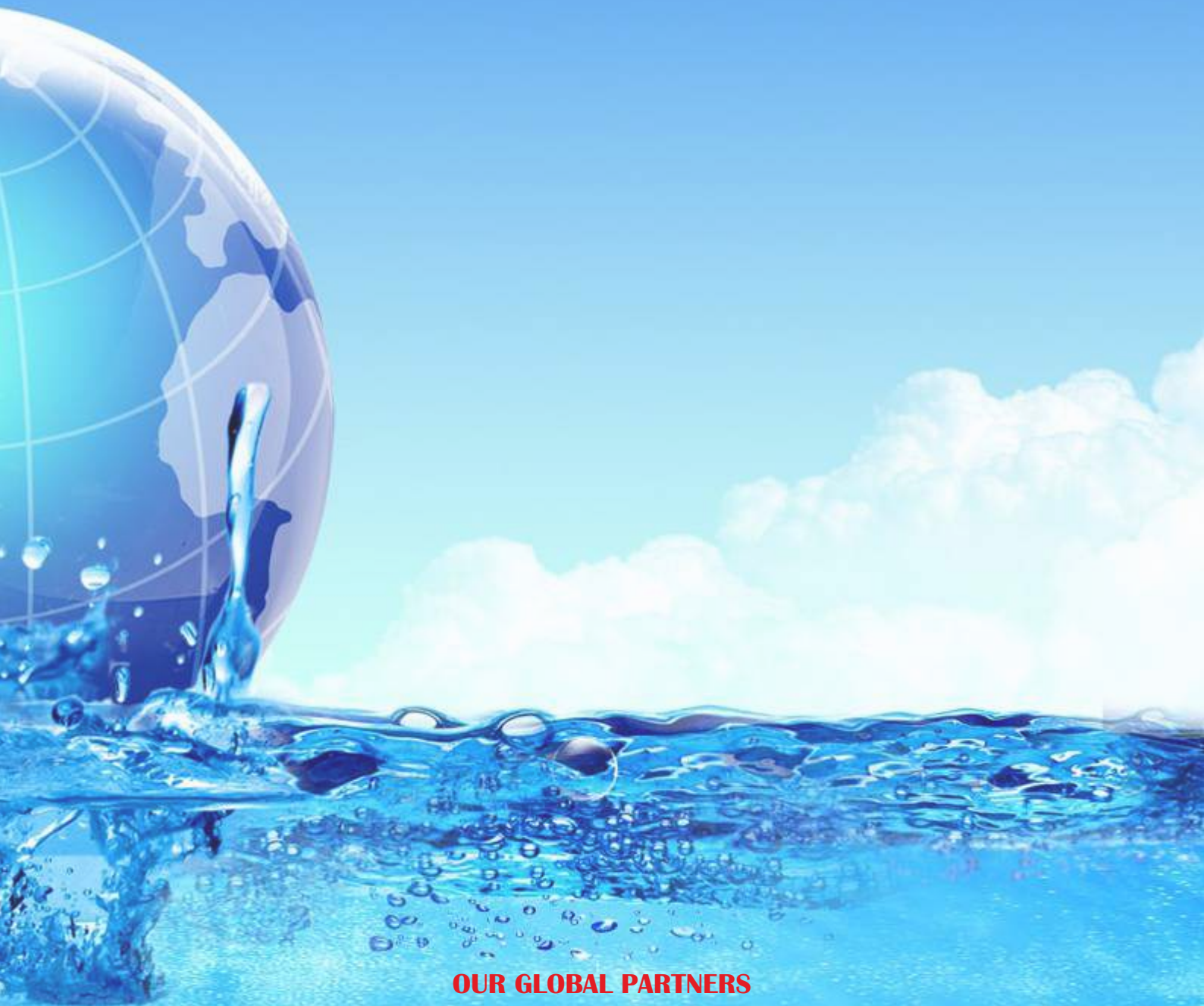
SWAN ENVIRONMENTAL

MONITORING SOLUTIONS



OUR GLOBAL PARTNERS

SHIMADZU · LaMotte · CPI · HydroNet HydroNet Co., Ltd. · SEA-BIRD SCIENTIFIC · CAMPBELL SCIENTIFIC

Beolux · HORIBA · COASTAL Environmental Systems · Pi2 Technologies Reinventing Odour Control · waterix Cleaner water with less energy

Total Organic Carbon (TOC) Analyzer

TOC is index of organic pollution in water. Extremely wide range from 4 µg/L to 25,000 mg/L for applications from ultrapure water to highly contaminated water.

The Analysis of TOC is a more rapid method for the determination of Organic load and thus has the potential for better early warning and pollution control management.

TOC Analysis is a practical alternative to COD for plant control Process management and monitoring of inflow and effluent in waste water treatment plants.

TN Unit with TOC:

Analyze gas and solid samples as well as liquids with measurements over a wide range from 4 µg/L to 4000 mg/L, Simultaneous measurement of Total Organic Carbon &Total Nitrogen.

SSM with TOC:

Combining the Solid Sample combustion unit with a TOC analyzer permits analysis of many solid samples in addition aqueous samples, including soil, sludge, and sediments.

Applications:

- Wastewater management in accordance with ISO 14001
- TOC Measurement in Tap Water
- Water quality control in water purification plants and feed water
- Measurement of TOC in boiler water
- TOC measurement in soil, sludge and sediments
- Land fill leachate monitoring in ground water

BOD System

Most innovative ecological (mercury-free) system with microprocessor utilizing manometric technology. Features a stirring system offering non-stop operation without risks of interruption or overheating. Easy to handle design allows 6 or 10 bottles to be operated at the same time.

COD / TN / TP System

Measure COD using your choice of mercury (USEPA approved method) or non-mercury reagent systems.

COD Colorimeter is direct reading for on-site water analyses.

Features pre-programmed tests.

Rapid Bio Mass Detection System

It is the first and only solution able to accurately measure true living biomass concentration and health at any step in biological wastewater collection and treatment.

Measures and differentiates between living biomass, dead biomass, and inert solids.

Complete results within 5 minutes, allowing real-time assessment of bio-reactor efficiency and stability.

Optimize treatment parameters & thus reduce operating costs.

Portable Water Analysis Laboratory

Portable lab model for visible range more than 80 preprogramed and 25 user programs for testing of water parameters for all types of water like sewage water, drinking water and effluent water etc;

Economical use: titration test kits, digital ph & conductivity meters along with reagents for the measurement of Ammonia, Chlorine, Bromine, Iodine, Chromium, Copper, Fluoride, Iron, Nitrate, Nitrite, Phosphate, Silica, Sulphate, Sulphide, Turbidity, Alkalinity, Carbon dioxide, Chlorine/ Salinity, and Dissolved Oxygen.

Professional Water Analysis Lab

WaterLink Spin for pool and spa water testing. Just fill one unique Spin reagent disk with water and vital tests are done automatically. In just 60 seconds all test results are transferred into software, analyzed to recommend precise treatment instructions.

Trimeter/Turbidity Laboratory Meter

Compact water analysis instrument designed for turbidity, Chlorine and color.

Meets USEPA & ISO design criteria as specified by USEPA method 180.1 & ISO.

It uses a tungsten lamp and meets the specifications of EPA 180.1 Data logging up to 4000 points with a date and time stamp — stored tests can be viewed on the meter or downloaded to a PC.

Laboratory Water Quality Instruments

Multi-parameter analyzer for high precision measurement in laboratory covering 10 kinds of electrochemical parameters like pH, conductivity and dissolved oxygen.

Test ions in aqueous solutions with the features of simple sample process, quick and accurate measurements.

Pocket Testers

Ideal for any water analysis, microprocessor based tester for pH /Conductivity /TDS enables full reading display without any multiplications with temperature measurements.

Rapid Total Coliform and E.coli Systems

Rapid Qualification:

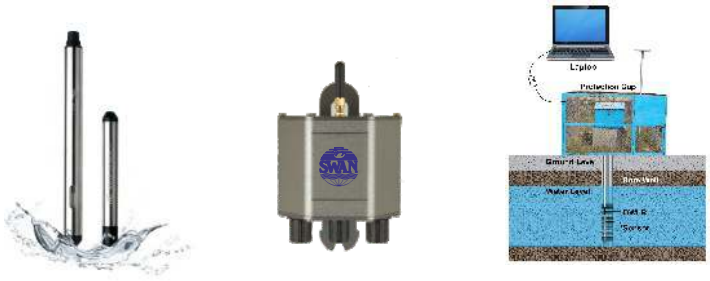
Colitag™ is a USEPA approved Presence /Absence and MPN enzyme substrate test that provides 16-48 hour total coliform & E. coli determinations and detects 1 MPN of total coliform or E. coli bacteria per 100mL water sample.

Detects both MUG-negative and MUG-positive E. Coli in one test. Includes built-in-ability to detect E. coli using the reliable indole test.

Rapid Quantification:

Tests using the iMPNplate-1600 offer a high degree of sensitivity, with a detection limit ranging from one to 1,600 MPN per 100 mL sample. The device is stand-alone and no other equipment is ever needed to perform the test. The entire procedure involves only a few steps and can be done in less than one minute per sample.

Real Time Water Level Monitoring System



Water Level/Quality sensor measures Ground Water/Surface Water Level/Quality data for Water Resource Estimation.

This model measures Water Level, Water Temperature, EC at once to monitor change of water quality state with high durability, accuracy and stability.

Applications:

- Remote Monitoring of Ground Water Levels.
- Remote Monitoring of Surface Water Levels.

Real Time Water Quality Monitoring System

- **Technology :** UV fluorescence for BOD, COD, Total Coliform / Fecal Coliform
- **Standard sensors:** BOD, COD, Total Coliform, Temperature, pH, Conductivity, Optical DO, Universal Wiper, Turbidity
- **Small sensor options:** Sodium, Chloride, Ammonium, Nitrate, TDG
- **Medium sensor options:** Chlorophyll, Blue-Green Algae, Rhodamine, Crude Oil, Refined Oil, CDOM / FDOM, Fluorescein, Optical Brighteners, Tryptophan, PAR, Oil in Water.
- Field-Proven Methods to Minimize Fouling
- A Data Display for Every Application and Budget

Open Channel Flow Velocity & Level Meter

- Has high-precision radar and ultrasound technologies.
- Contactless measurement of both the surface flow velocity and the fluid level.
- Integrated tilt sensor and Automatic tilt compensation allow simple mounting and ad-hoc use without requiring special calibration.
- Wide velocity range from 0,02m/s to 15m/s.
- Distance measurement range : 0,5, to 10m.
- Long range operation: up to 10m above water level.

Coastal / Sea Water Quality Monitoring Probes

- Multi parameter water quality probe: Measures Conductivity, Temperature, Depth, Dissolved Oxygen, pH, Turbidity and Chlorophyll). Has data logging and anti-foulant capabilities. Ideally suited for extended deployments in remote, biologically rich environments.
- Cycle Phosphate Sensor: Ideally suited for unattended monitoring the Cycle PO4.
- UV Nitrate Sensor: Ultimate solution for real-time reagent free nutrient testing.

Shipboard Weather Monitoring Station

The WEATHERPAK® shipboard weather station is used on ships that require both port and starboard wind data on larger military vessels and on research vessels.

Advanced computing power also allows it to determine which is upwind, correct to true wind, then report that data. It is also powerful enough to communicate with other ships' sensors via RS-232, RS-422 or RS-485.

Weather Pak is designed to use in all types of applications especially for Military, Research, Rescue and Commercial Applications.

Aviation Weather Monitoring Systems (AWOS)

Automated Weather Observing Systems (AWOS) are the most advanced of their kind in the world.

AWOS is a suite of weather sensors, which measure, collect and disseminate weather data to help meteorologists, pilots and flight dispatchers prepare and monitor weather forecasts, plan flight routes, and provide necessary information for correct takeoffs and landings.

The data is all collected and processed in the weather room at either a PC or a server (depending on the scale of data distribution). The data is then sent to one or several display devices, other PCs, a LAN/WAN, and a voice output for broadcast.

Continuous Water Level Monitoring Radar

- Universally implementable radar sensor for continuous level measurement of liquids under difficult conditions.
- Suitable for level measurement in storage containers, reactors and process vessels, even under difficult process conditions.
- Exact measuring results independent of pressure, temperature, gas and steam
- Maintenance-free operation through non-contact measuring principle

Oil Content Analyzer

- Fully automated one-touch operation, from oil extraction to sample measurement and draining
- S-316 solvent extraction/Infrared absorptiometry method
- Provides swift, highly accurate analysis.
- Capable of analyzing both high and low concentrations. Dynamic Range: 0 ~ 200mg/l .
- Backlit extraction tank.
- Reduction of environmental Measurement mode impact and running cost.

Odour Control Cover

Reinforced geomembrane that includes activated carbon filters, to cover tightly and reduce odour emissions and greenhouse gases in waste water tanks.

- Patented Technology. Durable and long lasting.
- Typical odour reduction of 90-95% by covering and treating at the same time.
- Can cover any size and type of industrial tanks, ponds, basins and lagoons.
- Minimizes odours and greenhouse gases emissions by filtering them rather than trying to mask them with chemicals (e.g. odour neutralizers) or only ducting them (e.g. hard and soft covers).
- Most cost effective solution on the market for covering and treating gaseous emissions.

Container WWTP with MBR

- Packaged BioCleaner® waste water treatment plants with a membrane bioreactor (BC MBR) use the most advanced technology for treatment of sewage water.
- Treatment of municipal waste waters and industrial waste waters.
- High efficiency of organic pollution removal, nitrogen removal, bacteria and viruses removal
- Treated water can be used for discharges into groundwater (infiltration) in places without water recipient
- Treated water is disinfected and can be reused for irrigation of ornamental greenery and also vegetables for direct consumption

- Treated water is suitable for reuse (flushing toilets)
- High flexibility for different loading conditions.
- Minimization of operating costs is ensured by automatic control system.
- Plants can be installed underground, half buried or at ground level.

Decanter Centrifuges

Decanter centrifuges provide the benefits of high clarifying efficiency and maximum dewatering as well as the separation of liquids with the simultaneous removal of solids.
Decanter centrifuge designs:

- Clarifying decanter centrifuge for clarifying liquids
- Dewatering decanter centrifuge for maximum concentration of solids
- Concentrating decanter centrifuge for the concentration of solids
- Separating decanter centrifuge for the separation of liquid mixtures and the simultaneous separation of solids
- Classifying decanter centrifuge for the extraction of different solid fractions
- Extraction decanter centrifuge for the extraction of reusable materials

Aerators, Coolers and Mixers

Aerators: Turbine surface aerator that combines the high operating efficiency and controllability of bottom aerators with the reliability and low investment cost of the surface aerators. Designed to minimize life-cycle expenses, such as acquisition price, maintenance and energy consumption. Perfect for purifying municipal and industrial sewage, as well as leachate water from landfills. Wide intake pipe. No need for compressed air.

Coolers: Ideal for cooling of hot process water and as a condenser for cooling basin water, and they may typically replace more costly cooling tower solutions. High operating efficiency. Low Maintenance. Water spray is higher and wider. In addition, the droplet size and the distribution is different. Effective cooling for open air basins: Cooling and aeration of industrial wastewater, Cooling of process water, Cooling of power plant condenser water.

Mixers: Used for mixing sewage and industrial process water. The mixers can be equipped with a frequency converter, so mixing power can be adjusted steplessly to achieve the optimal value. The mixer has a downward flow pipe that improves the circulation of the entire basin. Small initial investment. Easy to install and service. Easy to adjust. Flexible capacity.

An ISO 9001:2015
Certified Company

SWAN ENVIRONMENTAL PVT.LTD.

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