

# Water Product Portfolio

WATER INSTRUMENTS & SYSTEMS



**DISSOLVED OXYGEN** CONDUCTIVITY TOTAL DISSOLVED SOLIDS (TDS) SOLIDS (TDS) RESISTIVITY SALINITY DENSITY PH **OXIDATION REDUCTION POTENTIAL (ORP)** TEMPERATURE DEPTH / LEVEL / PRESSURE AMMONIUM AMMONIA CHLORIDE **FLUORIDE** NITRATE CALCIUM TURBIDITY CHLOROPHYL FRESHWATER BLUE-GREEN ALGAE MARINE BLUE-GREEN ALGAE 0 **RHODAMINE WATER TRACING (WT) DYE REFINED OIL COLOURED DISSOLVED ORGANIC MATTER (CDOM)** FLOURESCENT DISSOLVED ORGANIC MATTER (FDOM) SUSPENDED SOLIDS TOTAL DISSOLVED GAS **BIOLOGICAL OXYGEN DEMAND (BOD)** CHEMICAL OXYGEN DEMAND (COD) **DISSOLVED ORGANIC CARBON (DOC)** TOTAL ORGANIC CARBON (TOC) **PHOTOSYNTHETICALLY ACTIVE RADIATION (PAR)** CHLOR

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\*NATA accredited facilities & services comply with the requiremen of ISO/IEC 17025:2005 and includes testing laboratories, calibration laboratories & blast monitoring services

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# Acoem Water Product Portfolio Instruments & Systems



#### **AUTOMATIC SAMPLERS**

- MAXX portable & stationary samplers
- MAXX wall mounted samplers
- MAXX 12 VDC samplers with active & passive cooling
- MAXX stainless steel housing samplers suitable for hazardous areas
- MAXX desert first flush samplers

#### **MONITORING SYSTEMS**

- Mobile monitoring stations
- Combined sampler and WQ stations
- Buoy mounted monitoring stations
- Groundwater Remote Area Monitoring Station (GRAMS)
- Flow and flood level stations

#### **PROBES, SONDES & TRANSMITTERS**

- Greenspan single parameters sondes (EC, pH, ORP, Turbidity, DO)
- Greenspan multi-parameter sondes



#### ONLINE ANALYSERS

- Tethys UV300 low cost monitor
- Tethys UV500 multi-parameter analyser
- Heavy metals analyser
- Process analysers



#### LOW / LEVEL / PRESSURE

• Greenspan PR-7100 liquid water level depth sensor

• Greenspan PS-1000 submersible pressure sensor

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# **Automatic Samplers**

### MAXX MINI SAMPLERS

The MAXX TP6 Series is an ultra-compact and lightweight automatic water sampler available in either peristaltic or vacuum-pump options. The TP6 is an unrivalled measuring device for volume determination. Highly accurate sample volume measurement with easy cleaning, modern and ergonomic design.

#### MAXX 12 VDC REFRIGERATED SAMPLERS

The TP5 C is a compact water sampler with integrated distributor, and diverse bottle options from composite to discrete. Comes with an insulating base with either refrigerated or non-refrigerated cooling.

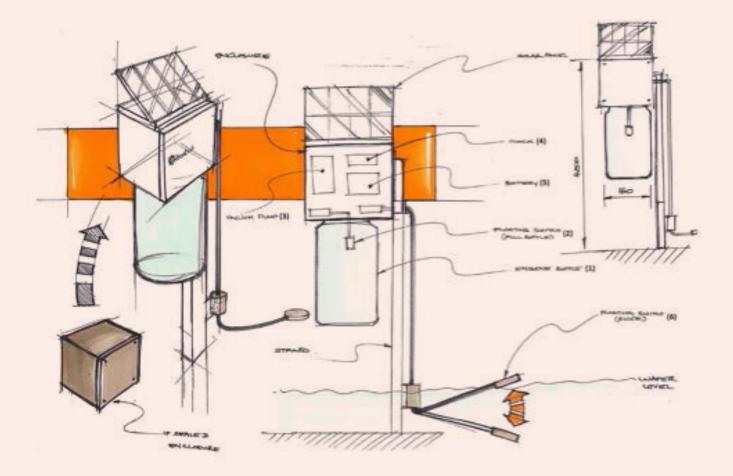
#### MAXX STATIONARY SAMPLERS

Fixed site sampler in plastic or stainless steel housings, especially suited for high ambient temperatures. For automatic sample extraction according to the vacuum or peristaltic principle. Mains operation.

Other options available:

- Self-emptying sampler
- High-pressure sampler (>20 bar).





### MAXX WALL SAMPLER

The MAXX TP5 W is a wall-mounted unit. It has the same controller that it used on the stationary and 12 VDC compact samplers. Stand-alone or can be combined with any collection or refrigerator.

### MAXX DESERT FIRST FLUSH SAMPLER

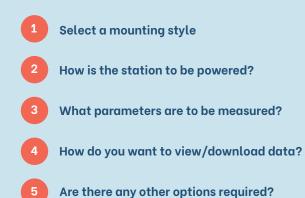
The desert sampler is a low cost alternative to typical manual sampling or expensive mechanical automatic sampling systems.

The desert sampler is a self-contained vacuum water sampling system. The system can be installed in-situ and left dormant for up to several months. When a sampling event occurs the sampler is triggered and a sample is automatically collected using the battery-powered vacuum pump into the sample collection bottle. The sample is now ready for collection and analysis.

# **Monitoring Systems**

At Acoem, we design and manufacture a wide range of water monitoring stations for unattended measurement of water bodies. Our stations have been used on dams, rivers, stormwater and waste water discharge and open water.

### FIVE STEPS TO BUILDING A MONITORING SYSTEM:







2 years and remote telemetry (or radio modems) the station can provide data indefinitely without being tied to specific locations. Ability to add beacons, weather sensors, navigational aids and many more options.

**BUOY MOUNTED MONITORING STATIONS** 

A complete Water Quality Monitoring Station built on a

### **MOBILE MONITORING STATIONS**

For mid length but non-permanent monitoring, Acoem's mobile WQMS is an ideal solution. Capable of being deployed in 30 minutes, the station is equipped with a WQ sonde with up to 15 parameters as well as optional individual sensors for solids or depth. Solar powered, with data logging up to 2 years and remote telemetry (4G or radio modems), the station can provide data indefinitely without the need for infrastructure support. For when the job calls for something between a portable handheld and a permanent station.

# GROUNDWATER REMOTE AREA MONITORING STATION (GRAMS)

Solar-powered bore water monitoring station, designed to monitor the bore water composition using a WQ probe measuring up to 15 parameters. The Sonde is connected to an interface device with SDI-12 to a data logger with up to 2 years storage.

The solar power system is capable of 5 days backup. Data from the station is downloaded remotely via the or radio modem.

### **COMBINED SAMPLER & WQ STATIONS**

Engineered to be rugged, secure and low maintenance the Acoem Water Quality Sampling Station is the ideal system to measure and sample water discharge or runoff. The station has been designed for those who need to measure the non-standard (lab analysed) parameters during a rain or discharge event and don't want to rely on field technicians taking manual samples. Combining in-situ monitoring and automatic sampling, this system automates collection and notifies when an exceedance occurs or a sample is collected.

### FLOW & FLOOD LEVEL STATIONS

Flow and flood level stations are critical for creeks and streams subjected to flooding during rain events. Our monitoring stations provide real-time data and alerting from sensors connected to these stations. Powered by solar and battery backup these stations are autonomous and will alert key stakeholders of impending flooding and provide critical information for mine site discharge or community alerts.

# Probes, Sondes & Transmitters

### **GREENSPAN MULTI-PARAMETER SENSOR**

Greenspan's multi-parameter sensor can simultaneously measure up to 6 water quality parameters in one portable probe. Two sizes available: • MP = 47mm Ø main body • MQ = 65mm Ø main body

The MP series can have up to 3 sensors recording 4 parameters (EC records Temperature). The MQ series can measure up to 6 parameters with 5 sensors.

### **GREENSPAN SINGLE PARAMETER SONDES**

**Greenspan Electrical Conductivity Sensors** The EC range is fully submersible and concurrently measures the fluid's electrical conductivity and temperature to give salinity levels.

**Greenspan Optical Dissolved Oxygen Sensor** The DO-1000L optical dissolved oxygen sensor provides accurate water quality data for all levels of research.

#### Greenspan Turbidity Sensor

Greenspan's turbidity sensor measures the optical features of a liquid and measures its clarity by determining scattered light levels within the column of water. The robust acetal bodys' and sensors allow for deployment in acidic or salty active waters. As the sensor is self-cleaning, they can operate in marine applications and waterways with high sediment loads.

#### Greenspan pH Sensor

The PH-1000 is suitable for most fluids and liquids, including freshwater, sewer monitoring, estuaries, and industrial processes.

**Greenspan Oxidation Reduction Potential Sensor** Designed to operate on a remote power source for long periods of time and requiring only minimal field servicing, the Greenspan ORP-1000 can be left unattended in operation for extended monitoring periods.







# **Online Analysers**

#### **TETHYS UV300 LOW COST MONITOR**

The UV300 is a cost effective water analyser for applications focused on one or two parameters. UV spectroscopy is well known for its stability and low operating cost. With this technology the UV300 can measure parameters like organic matter, Nitrate, Colour, Aromatics Hydrocarbons (PAH). Complementary modules allow the measurement of  $PO_4$ ,  $CI_2$ ,  $NO_2$ , Fe, Al by colorimetric method and Turbidity by laser diode. External probes can be added for physicochemical parameters like pH, ORP, Dissolved Oxygen (DO) and Conductivity.



### TETHYS UV MULTI-PARAMETER ANALYSER

The UV500 is an online water analyser based on a high resolution UV-visible spectrograph. It allows the simultaneous monitoring of many different parameters for waste water treatment plants or river monitoring stations with excellent stability and low operating cost.

Along with PO<sub>4</sub>, Cl<sub>2</sub>, NO<sub>2</sub>, Fe and Al, this analyser is also capable of measuring:

- H<sub>2</sub>S Phosphate
- Colour
  UV<sub>254</sub>-COD
- Nitrate
  Conductivity
- Ammonia
  Hydrocarbons
- pH / ORP Dissolved Oxygen (DO).
- Turbidity

# Flow / Level / Pressure

### **GREENSPAN WATER LEVEL DEPTH SENSOR**

Greenspan PR-7200 is a complete water level bubbler system for measuring the depth of water.

An air tube runs from the PR-7200's compact compressor to the water, where the tube is submerged. This allows the PR-7200 to be sited safely away from the water, meaning only replaceable tubing can be damaged.

Based on the advanced liquid level sensor of the PR-6100, the PR-7200 provides a measurement of the attached capillary tube pressure, conversion, output to recorders and controllers and control over the PR-7200 integrated compressor module.





# GREENSPAN SUBMERSIBLE PRESSURE SENSOR

The Greenspan PS-1000 submersible pressure sensor accurately measures water depth levels. The robust 47Ø acetal body can withstand harsh environments making it ideal for continuous long-term deployments.

PS-1000 depth sensors are ideal for monitoring groundwater, streams/rivers, and lakes/reservoirs. Their accuracy and reliability make them well suited to studying hydrological run-off, stratification, and industrial processes.

Also available is the PS-7000 stainless steel submergible pressure sensor. The PS-7000 offers the same superb performance as the PS-1000 but in a smaller diameter stainless steel body. DISSOLVED OXYGEN CONDUCTIVI TOTAL DISSOLVED SOLIDS (TDS) D D S TDS RESISTIVI SALINITY DENSI OXIDATION REDUCTION POTENTIAL (ORP) acoem TEMPERATURE DEPTH/LEVEL/PRESSURE AMMONIUM AMMONIA HLORIDE UORIDE ΕI TRATE CALCIUM TURBIDITY RESS CHLOROPHYLL ESHWATER BLUE-GREEN ALGAE MARINE BLUE-GREEN ALGAE RHODAMINE WATER TRACING (WT) DYE REFINED OIL COLOURED DISSOLVED ORGANIC MATTER (CDOM) FLOURESCENT DISSOLVED ORGANIC MATTER (FDOM) SUSPENDED SOLIDS TOTAL DISSOLVED GAS BIOLOGICAL OXYGEN DEMAND (BOD) CHEMICAL OXYGEN DEMAND (COD) **DISSOLVED ORGANIC CARBON (DOC) TOTAL ORGANIC CARBON (TOC) PHOTOSYNTHETICALLY ACTIVE RADIATION (PAR)** 

FRESHWATER BLUE-GREEN ALGAE MARINE BLUE-GREEN ALGAE



# About Acoem

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**At Acoem, we create environments of possibility –** helping organisations find the right balance between progress and preservation – safeguarding businesses and assets, and maximising opportunities while conserving the planet's resources. We deliver unrivalled, interoperable AI-powered sensors and ecosystems that empower our customers to make enlightened decisions based on accurate information.

Together with 220 distributors, our 850+ employees work across 28 offices, 6 manufacturing facilities and 5 R&D centres in 10 countries, to provide trusted, holistic data solutions for customers worldwide.

Acoem links possibilities with protection.

For more information visit acoem.com/australasia



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