Complete Water and Product Quality Analysis

Beverage Industry

ASIS SCIENTIFIC



HACH®

Be Right™



Your Partner for Quality Analysis in the Beverage Industry



Beverage manufacturers strive to achieve a high quality and consistent product. Increases in automation processes include improving appearance of colour/texture and increasing shelf life while increasing yields. Today's producers aspire to minimise waste and water reuse.

With these goals in mind, it is critical to use the correct instrumentation and chemistries that are designed to withstand the challenges in the beverage industry. Since 1947, Hach® beverage professionals design, manufacture, and distribute world class instrumentation, test kits, and chemistries across many beverage industry applications from start to finish across influent, production control, quality lab, and effluent treatment.

We invite you to take a look at our comprehensive line of product and service solutions. As your plant is unique, there may be additional products that will work for your application. Please reach out to one of our local experts for a customised solution.



Beverage includes products such as beer, bottled water, carbonated and non-carbonated juices/soft drinks. Of these, water is key. Water purification ensures beverage manufacturers are producing a consistently high-quality product while maximising up time. Beverage plants need highly accurate analytical instruments with minimal maintenance requirements to keep the plant up and running.

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Photometric & Colorimetric



DR6000 Spectrophotometer

Top-of-the-line benchtop for advanced analysis, including UV. TNTplus® vials work with the DR6000 Spectrophotometer.

- Accessories for high volume and high accuracy testing needs
- Advanced quality assurance
- Guided procedures and elimination of false readings
- Automatically avoids errors

Brewery Methods

The Brewery Analysis Package software upgrade contains 12 specific brewery assays that conveniently upload via USB to a DR6000. Includes procedures according to the ASBC and MEBAK approved methods for:

Beer Colour, Bitterness Units, Iso-Alpha-Acids, Vicinal Diketones, Free Amino Acids, Anthocyanogens, Iron, Steam Volatile Phenols, Total Polyphenols, Photometric Iodine, Thiobarbituric Acid Number (TAN), and Reductones.



DR3900 Spectrophotometer

The DR3900 spectrophotometer provides the simplest way to perform tests for water analysis. Used together with TNTplus test kits, testing steps are reduced. For use in lab verification to monitor incoming water and process efficient of inline instruments.

- Simple preparation
- Fast execution
- Comprehensive documentation

TNTplus® Bar-Coded Chemistries

TNTplus vials use Dosicaps (freeze-dried reagents integrated into a sealed cap) that are easier to use than Powder Pillows or Liquid Reagents, without any risk of contamination.

- Error free and fast—instrument automatically detects and runs the correct method
- Easy, accurate recognition—colour-coded parameters and ranges
- Best results—10 measurements in one rotation, eliminating outliers; optically superior glassware



DR900 Colorimeter

Multi-parameter handheld water testing with over 90 colorimetric parameters for use in the most demanding field environments. For use in lab verification to monitor incoming water and process efficient of inline instruments.

- Fastest and simplest testing for the most demanding field environments
- Your important testing methods are available at your fingertips
- Field ready in every way possible
- Intuitive user interface
- Simple data communication





TL23 Series Turbidimeters

Trusted measurement for high range turbidity applications, simplified. The TL23 Series laboratory turbidimeters are available in four different models: two models with tungsten lamp at 460 nm, and two models with LED light source at 860 nm. Suggested application includes final lab QA measurement for product quality.

- Improved and intuitive design
- A smart device for more reliable measurements

Hach Test Kits

A variety of test kits are available and can be fully customised. Test for critical parameters to support fermentation and monitoring source water contaminants that affect flavor stability.

- Pre-measured reagents
- Accurate colour matching
- Upright reagent storage





Ozone AccuVacs®

Fast, accurate visual method for determining ozone concentrations. Use to perform final lab QA checks for ozone in bottled water. Kit contains 25 tests.

- Simple, low-cost colour disc method is the most accurate visual test kit method
- Indigo trisulfonate method masks interferences from chlorine and other oxidising agents and makes ozone analysis easier

Electrochemical

HQd® Meters & IntelliCAL® Probes



Handheld HQd® meter and interchangeable IntelliCAL® probes for quick, simple, and reliable measurements, e.g. lab QA check to verify product quality and process efficiencies.

HQd meters and probes are designed for the accurate measurement of pH, DO, Conductivity, Nitrates, and many more parameters. Available in both hand held and lab configurations, HQd meters can be combined with any combination of probes to provide all your necessary measurements in one instrument.

SL1000 - PPA Portable Parallel Analyser™



The Hach SL1000 Portable Parallel Analyser® (PPA) provides highly accurate results, with less opportunity for errors, in a fraction of the time. The SL1000 is a portable colorimeter that provides 75% faster testing in chloramination applications by using Chemkey® reagents instead of powder pillows. All chemicals and processes are entirely contained inside the Chemkey.

- Up to six parameters, tested in parallel.
- Key parameters include pH, conductivity, chlorine and alkalinity
- Less variability
- Less hassle

Chemkeys



Chemkeys are designed for use with the SL1000-PPA Portable Parallel Analyser. Use for dramatically streamlined water quality testing.

Titrametric

AT1000 Automated Titrator



Automated titration for accurate and repeatable measurement, with complete traceability. Minimal reagent contact and eliminate sample preparation. Use for final QA lab test for total acidity in soft drinks. Beverage application packs available for key parameters such as Total Acidity, pH, and SO_2.

Oxygen

Orbisphere® 3100 Portable Oxygen Analyser

Accurate oxygen analysis allows the brewer to control the production process so the flavor stability of the beer can be ensured. The 3100 can be adapted to a piercer to measure dissolved oxygen in packages.

- Designed to withstand the harshest environments
- Rugged, reliable, and maintenance free
- Most stable sensor with the longest calibration interval





Orbisphere 410 / M1100 Luminescent DO Sensor

This controller offers precise and powerful process monitoring capability.

- Intuitive software on a clear and full colour touch-screen
- Internal diagnostics and reminders for maintenance and calibration
- Multiple channels and communication options, including USB and Profibus

Can be purchased as a high level oxygen sensor, ideal for the measurement of wort.

Low level oxygen sensor is available for the measurement of bright beer.

Carbon Dioxide

Orbisphere 510 / 31490TC CO_2

Designed to complement Orbisphere® high quality sensors, these instruments provide accurate, repeatable measurements and an impressive level of data management. Depending on the version, the Orbisphere 510 controller can be combined with a 2-channel CO_2 controller.



Package Analysis

Orbisphere 6110 Total Package Analyser

The ideal solution for final beverage packages analysis.

- Measures CO_2 by both Pressure/Temperature (P/T) and True-CO_2 methods, and at any temperature
- Easy and automated analysis of oxygen and CO_2 concentrations for both head space and liquid in bottles and cans
- Can perform measurements on all shapes and sizes of cans and bottles
- No need for regular sensor or tubing cleaning due to unique ability to take measurements in the gas phase
- Ergonomic operation and repeatable analysis with intuitive touch screen, single push-button operation and laser package positioning.





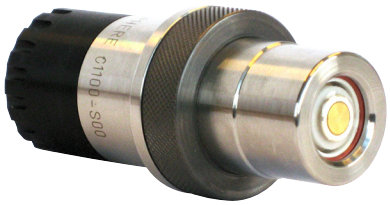
Dissolved Oxygen/Calculated TPO Analyser

Kit consisting of controller, oxygen sensor, piercing device, and accessories.

- Quick and easy measurements in package for non-carbonated and carbonated drinks
- Fast measurement response
- Quantify oxygen levels for product stability
- Low maintenance

Inline Ozone

Orbisphere 410/510 with C1100 Ozone Sensor



The Orbisphere C1100 sensor is designed to measure ozone in ultra pure water loops, or in the sanitising phase of any beverage production line. Use to measure ozone to ensure proper ozone dosing in the manufacturing process of bottled water.

- True Zero - drift free and accurate measurements
- Fast, easy, traceable, and reliable calibration
- Low cost maintenance
- Unbeatable reliability

Inline Soft Drink Monitor ProBrix

O_2 / CO_2, Brix



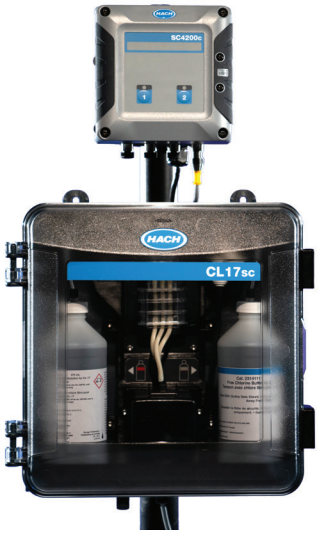
Full inline quality control for soft drink production. Offers real-time analysis. Know the dissolved carbon dioxide, oxygen, Brix, and temperature in the product in less than one minute.

- Confirm carbon dioxide (CO_2) levels within one minute of initial startup or changeover to ensure CO_2 is within product specifications
- Confirm Brix levels within three minutes
- Reduce product and package waste by not filling packages with product out of specifications.
- Increase syrup yields

Chlorine

CL17sc Colorimetric Chlorine Analyser

Built on a legacy of reliability in online chlorine analysis, the advanced design of the CL17sc reduces routine maintenance touch time and provides powerful diagnostic features and enhanced connectivity. The result is less hassle, minimised risk of data loss, and even more reliable information to empower your decision making. By pairing the CL17sc with Hach's SC controller platform, your options increase significantly: internal data logging; external analogue and digital communication alternatives; and multi-parameter instrument flexibility. The CL17sc is compliant with US EPA regulation 40 CFR 141.74. Both Method 4500-CL G and Method 334.0 can be used for measuring residual chlorine in drinking water.





CLF10 sc Free Chlorine Sensor

Hach's CLF10 sc and CLT10 sc provide online amperometric solutions for real-time analysis of free or total chlorine in disinfection applications.

- EPA-approved free or total chlorine analysis
- No reagents to replace, no waste stream
- Chlorine analysis made easy

TU5 Series Process Turbidimeters

The TU5 Series platform employs a patented optical design that sees more of your sample than any other turbidimeter.

- Delivers the best low level precision and sensitivity while minimising variability between measurements
- Ideal for inline quality measurement to ensure efficient manufacturing process

TU5300 and TU5400 process turbidimeters require an sc controller for operation. If you don't have one already, choose either an sc1000 or sc200 controller.



Test Kit, Chlorine

- Simple, low-cost colour disc method is the most accurate visual test kit method
- Achieve fast results with an easy-to-carry test kit



Hardness / Alkalinity

EZ5000 Series Online Titrimetric Analyser for Total Hardness and Alkalinity

The EZ5000 Series are state of the art titrators built on an industrial analytical platform run by AppliTek's proprietary controller-database software. High precision micropumps for addition, robust peristaltic pumps for sampling and drain, and carefully designed liquid pathways all add up to the highest performance for industrial and environmental analysis needs.



- Unique flexibility in titration methods
- Multi-parameter analysis
- Smart automatic features
- Control and communication via industrial panel PC
- Standard 4 - 20 mA signal output with alarm processing
- Communication supporting Ethernet connectivity to Modbus TCP/IP
- Multiple stream analysis

pH (Incoming or Wastewater)

pHD Digital Differential Online pH/ORP Sensors

Hach pHD sc Process pH Sensors with Integrated Digital Electronics for Plug and Play Capability with Hach's Digital SC Controllers.





- Exceptional performance due to the Differential Electrode Measurement Technique
- Available in a wide variety of body materials, mounting styles, pH electrode types, and cable connections

Total Organic Carbon (TOC)

BioTector® B7000

The ideal online TOC analyser to achieve precise results even for your most challenging applications. A unique self-cleaning oxidation technology enables the B7000 analyser to easily handle difficult samples and significantly reduce the maintenance schedule and costs associated with traditional on-line measurement.

- Eliminates build up issues from salts, particulates, fats, oils, and greases that lead to drift and high maintenance
- Product loss alarm notification system
- Protect capital equipment and lower CO_2 footprint
- Flexible field of application



Conductivity

3700 Digital Inductive Conductivity Sensors

Hach Inductive Conductivity Sensors measure 200 up to 2,000,000 microSiemens/cm. Used for the control of CIP processes. Can also be used for product monitoring and quality assurance.



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We invite you to take a look at our comprehensive line of product solutions and services.

To see the complete portfolio for the beverage industry, please visit:

›› au.hach.com/beverage

Hach ServicePlus® Certified Programs

At Hach we understand that your plant's challenges are unique and we have developed Hach ServicePlus Certified Programs that are vital to helping you with your maintenance and support issues.

Whether it is a lack of resources or skills, an instrument that is down, ensuring the accuracy of readings or the need for a predictable budget, we have programs to fit the unique challenges you face at your beverage facility.

Too many vendors making it difficult to standardise quality processes? Hach can also service the non-Hach instruments in your facility to ensure that all your instruments are being maintained to the same standards.

›› au.hach.com/service-overview

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