

Complete Water Analysis for the **FOOD INDUSTRY**



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Be Right™

YOUR PARTNER FOR WATER ANALYSIS IN THE FOOD INDUSTRY

At Hach, we understand your water needs when it comes to ensuring the highest levels of product quality, consistency and safety. Since 1947, Hach Company has designed, manufactured, and distributed world-class instrumentation, test kits, and reagents for testing water quality in a variety of food industry applications, including influent, Clean-In-Place (CIP), product loss reduction, and effluent water treatment.

We invite you to take a look at our comprehensive line of product solutions and services. They're the most accurate and dependable products you can buy.

Hach offers:

- On-line process instrumentation and reagents
- Laboratory equipment, reagents, and supplies
- More EPA-approved methods than any other company
- Portable test kits and field instruments
- Automatic samplers and flow meters
- Local sales and service teams
- Service partnership programs and customized training

KEY PARAMETERS FOR INFLUENT WATER TREATMENT / CIP

Chlorine

Excessive chlorine harms membrane-based filtration systems and alters water's taste. Too little chlorine creates an opportunity for microbiological growth. Close monitoring of chlorine levels preserves filtration membranes and prevents the formation of harmful bacteria. Many disinfection programs employ a chlorine, chlorine dioxide or ozone strategy to prevent microbiological growth. Whether raw water, process water, rinse water, or effluent water, constant monitoring of disinfection parameters helps ensure that processes meet product safety, consistency and environmental regulations.

Conductivity/Total Dissolved Solids (TDS)

Conductivity or TDS, the most widely used control parameter for CIP applications, measures caustic or acidic solution strength. Conductivity also monitors process completion to identify product variation and control chemical additives. Inductive conductivity, sometimes referred to as electrodeless or toroidal, remains the industry's primary choice due to sanitary 3A design standards. Conductivity also determines filtration media efficiency by gauging the dissolved, ionic constituents before and after the filtration process.

pH / ORP

pH and ORP commonly measure control processes throughout a facility. pH adjustment prior to filtration prevents precipitation of dissolved materials such as silica and calcium carbonate that clog filters. Maintaining proper pH also ensures maximum effectiveness and minimizes the costs of chemical additives, such as disinfectants. ORP monitors the effectiveness of chlorine removal (activated carbon filtration) and controls de-chlorination chemical addition, protecting upstream RO units and reducing chemical costs.

Turbidity

Depending on the water source, turbidity varies dramatically. Often, filtration systems remove excess turbidity and other minerals. While conductivity also monitors dissolved solids, on-line turbidity measurement is the preferred method to monitor filtration efficiency and control backwashing cycle frequency.

KEY PARAMETERS FOR EFFLUENT & WASTEWATER TREATMENT

pH

The continuous monitoring of pH plays an important role in alerting a facility of necessary process adjustments well in advance of a violation. Additionally, pH monitoring at various stages within the wastewater treatment process is critical for maintaining bugs' health, optimizing chemical usage, and preventing corrosion to control costs.

Dissolved Oxygen (DO)

The aeration and activated sludge processes require a steady supply of oxygen to function effectively. Insufficient oxygen results in process inefficiency, producing foul-smelling intermediate products and incomplete reactions. Too much oxygen results in excessive energy loss. Since aeration and activated sludge processes constitute up to 70% of a wastewater plant's energy costs, precise monitoring and control of oxygen allows effective and efficient functionality.

Turbidity and Total Suspended Solids (TSS)

Turbidity and TSS measurements are commonly used for wastewater discharge reporting. They also control dissolved

air flotation systems, dewatering equipment, and clarifier influent. When applied to polymer feed systems, the additional control often results in significant polymer savings. On-line monitoring and regular sampling protocols reduce the potential of putting excessive solids into the wastewater stream and help prevent permit violations and associated fines.

Organics

In wastewater with high organic loads, a facility uses chemical treatment and physical processing to reduce load levels to those acceptable for either re-use or discharge into the environment. Efficient management of organics typically involves Biological Oxygen Demand (BOD) for reporting purposes. However, since the test takes 5 days, surrogates such as Chemical Oxygen Demand (COD), Total Organic Carbons (TOC), and Spectral Absorption Coefficient (SAC) may be used. These offer quicker test results and early detection of upsets or spills for reduced operational and maintenance costs. COD, a relatively simple lab procedure, reduces testing time to 2 hours. On-line TOC monitoring provides results every 7 minutes and on-line UV254 (SAC) monitors continuously for real-time control.

KEY PARAMETERS FOR PRODUCT LOSS REDUCTION

Organics

Lost product reduction has been a high-ranking objective in the food industry for a long time. Losing otherwise salable product down the drain adds significant cost beyond the product loss itself in the form of higher energy, water, and treatment costs. Using real-time organics monitoring specifically designed for

these harsh applications as a management tool allows plants to view and quantify the product in process streams and wastewater, allowing for more informed process control and incident response ultimately leading to reclaimed profit that would have otherwise been lost.

HACH WATER ANALYSIS TOOLS FOR T

From Arsenic to Zinc, Hach offers portable, laboratory and process instruments, and reagents for more than 100 test parameters—the broadest range for water analysis in the food industry.

ANALYSIS PARAMETER	PROCESS INSTRUMENTS AND ANALYZERS	LAB & FIELD ANALYSIS																	
		Photometric and Colorimetric					Electro-chemical		Titrametric		Micro-biology		Other Tools						
		Hach Spectrophotometers	Hach Colorimeters	Hach Prepared Reagents	Hach Turbidimeters	Hach Test Kits & Portable Labs	Hach Test Strips	HQd Meters and Hach sensION Probes	Radiometer Analytical MeterLab Meters & Probes	Titralab Automatic Titrators	Hach AutoCAT™ 9000 Titrator	Hach Digital Titrator	Hach Microbiology Media	MEL Portable Labs	Hach BODTrak II Apparatus	Hach Digestahl Apparatus	Hach HSA-1000 Analyzer	Hach Sigma Samplers	Laboratory Supplies
Acidity						■				■	■	■							■
Alkalinity	• APA 6000 Analyzer					■	■												■
Ammonia	• AMTAX sc Analyzer • APA 6000 Analyzer	■	■	■		■	■	■	■				■						
Ascorbic Acid				■		■				■									
BOD	• Hach BioTector TOC Analyzer* • UVAS sc Sensor*			■				■						■					■
Calcium (Ca & Mg as CaCO ₃)		■				■		■			■					■			
Chloride		■				■	■			■									■
Chlorine	• Cl17 Analyzer • CLF10 sc Sensor • CLT10 sc Sensor	■	■	■		■	■				■	■		■					
Chlorine Dioxide	• 9187 sc Analyzer	■	■	■		■				■	■								■
Chlorite						■				■	■	■							
Chemical Oxygen Demand (COD)	• Hach BioTector TOC Analyzer* • UVAS sc Sensor*	■	■	■															■
Coliforms, Total												■	■						
Color		■	■			■							■						■
Conductivity, TDS	• Hach/GLI Contacting Conductivity Sensors • Hach/GLI Inductive Sensors (Electrodeless) Conductivity Sensors							■	■				■					■	■
Copper		■	■	■		■	■									■	■		■
Dissolved Oxygen (DO)	• Hach LDO Model 2 Sensor (ppm) • K1100 Trace Oxygen Sensor (ppb)	■	■	■		■	■				■							■	■
E. coli												■	■						
Flow	• Sigma Open Channel Flow Meters • Hach/GLI U53 Open Channel Analyzer • Hach/GLI Flow Monitors/ Totalizers and Sensors																	■	
Fluoride	• CA610 Analyzer	■	■	■				■	■										
Free Amino Nitrogen		■																	
Hardness, Calcium (Ca ₂ ⁺ /Mg ₃ ⁺)	• APA 6000 Analyzer • SP510 Analyzer	■	■	■		■	■			■									■
Heterotrophic Bacteria												■	■						
Iodine		■				■													
Iron		■	■	■		■	■							■					■

*By correlation.

THE FOOD INDUSTRY

For more information,
call 1-800-227-4224
or go to:

hach.com/foodguide

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Lead																			
Manganese																			
Magnesium																			
Molybdate																			
Nitrate	• NITRATAX plus sc Sensor																		
Oil & Grease																			
Ozone	• 9185 sc Ozone Analyzer																		
pH	• pHD Differential Sensors • 8362 sc High Purity pH/ORP																		
Phenols																			
Phosphate	• PHOSPHAX sc Analyzer • Series 5000 Phosphate Analyzer																		
Polyphenols																			
Preservative Resistant Yeast (PRY)																			
Protein																			
Reductones																			
Silica	• 5500sc Silica Analyzer																		
Sludge Level	• SONATAX sc Sludge Blanket Level Probe																		
Sodium	• 9245 Sodium Analyzer																		
Sulfates																			
Sulfur Dioxide																			
Total Dissolved Solids (TDS)	• Hach/GLI Contacting Conductivity Sensors • Hach/GLI Inductive Conductivity Sensors																		
Total Organic Carbon (TOC)	• Hach BioTector TOC Analyzer*																		
Toxicity																			
Turbidity, Suspended Solids	• FilterTrak 660 Nephelometer • 1720E Turbidimeter • SOLITAX sc Sensor • Surface Scatter 7 sc																		
Water Content (Karl Fischer)																			
Yeast and Mold																			
Zinc																			

*By correlation.



Hach lab instruments are designed to help you confidently meet compliance objectives in influent, CIP, product loss reduction, and wastewater treatment, as well as in your quality control lab.

PHOTOMETRIC & COLORIMETRIC



DR 1900 Spectrophotometer

- The lightest and most compact portable spectrophotometer
- Even in dusty or wet conditions, testing is easy
- With the highest number of preprogrammed methods and an easy-to-use interface



DR 3900 Spectrophotometer

- Easy step-by-step testing procedure
- Elimination of false readings
- Accurate results every time



DR 6000 Spectrophotometer

- Accessories for High Volume and High Accuracy Testing Needs
- Advanced Quality Assurance at Your Fingertips
- Guided Procedures and Elimination of False Readings
- Automatically Avoids Errors

TNTplus® Bar-Coded Chemistries

TNTplus vials work exclusively with the DR 6000, DR 3900, and DR 1900* Spectrophotometers.

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

**Barcode reading, vial spinning, and outlier rejection features not available on DR 1900.*



DR 900 Colorimeter

- Fastest and simplest water testing for the most demanding field environments
- Your favorites, at your fingertips
- Field ready in every way possible
- Intuitive user interface
- Simple data communication

2100AN Laboratory & 2100Q Portable Turbidimeters

The primary standards for versatility, accuracy, and value in turbidity measurement.

- Pre-programmed calibration procedure
- Smart self diagnostics
- Meets or exceeds EPA criteria



Hach Test Kits

From beakers to colorimeters, everything you need is supplied in Hach Single- and Multi-parameter Test Kits.

- Pre-measured reagents
- Accurate color matching
- Step-by-step instructions
- Upright reagent storage
- Rugged, chemical-resistant cases



Hach Test Strips

Easy to use for fast and reliable water quality screening.

ez COD® Recycling for Hach COD Vials

Reduce COD reagent recycling costs and simplify the task of recycling.

- One low price—includes container, pickup, and recycling fees
- Hassle free—place entire vial into receptacle
- Environmentally friendly—Silver and Mercury are reclaimed
- Convenient—order reagents and recycling from one source
- Right sized—pick from three programs based on your annual COD waste output (5, 20, and 55 gallons)



ELECTROCHEMICAL

HQd Meters & IntelliCAL™ Probes

Use a single handheld HQd meter and interchangeable IntelliCAL probes for quick, simple, and reliable measurements.

- Hach has developed a customized electrochemistry solution for water quality that takes the guesswork out of your measurements.
- Designed for your water applications, the Hach HQd smart probes automatically recognize the testing parameter, calibration history, and method settings to minimize errors and set-up time.
- Hach gives measurement flexibility and ease of operation with its HQd portable and benchtop meter and full suite of interchangeable IntelliCAL laboratory and field probes for testing Conductivity, DO, ORP, pH, Ammonia, and many more!



ELECTROCHEMICAL



H-Series Meters & Probes

Hach's rugged, non-glass H-Series family of pH sensors resist damage and store dry to eliminate maintenance in laboratory and field testing of difficult applications. Use with Hach's H-Series benchtop or portable meters in areas where glass is not preferred such as rugged, outdoor, and food applications.

TITRAMETRIC & TOTAL OXIDANTS



Radiometer Analytical TitraLab® Workstations

Offers a variety of options for customizable titration measurement in the chemical industry. Accuracy, reliability and ease of use are the key features of these titration systems. For example, the TitraLab 965 Potentiometric Titration Workstation can perform acid-base determinations in aqueous/non-aqueous media, redox determinations, KF titrations, and much more. The TitraLab 870 Combined Conductivity and Potentiometric Titration Workstation provides pH, conductivity and ion measurements.

TitraLab® Automatic Titrators

TitraLab Automatic Titrators provide the perfect solution for routine measurements. With extremely fast and accurate results, these products require minimal training, push-button operation, and are simple to maintain. Acidity, pH, salt, and many other parameters are available.



AutoCAT™ 9000 Automatic Chlorine Dioxide & Chlorine Amperometric Titrator

Use to monitor and protect RO membranes and ion exchange resins, optimize dechlorination processes and calibrate process instruments. Measure free and total chlorine, chlorine dioxide, and sulfite.

Hach Digital Titrator

Get accurate ($\pm 1\%$), convenient titrations without the bulk, fragility, or waste of a conventional burette. Test for eighteen parameters including chlorine, hardness, and iron. Uses interchangeable titrant cartridges.



FLOW & SAMPLING

Sigma 950 Flow Meter from Hach Flow

With a full-range of sensor types for measuring flow velocity and/or level, the Sigma 950 Flow Meter from Hach Flow is all about flexibility. The Sigma 950 has non-contact ultrasonic sensors that allow you to monitor wastewater flow in extremely harsh environments. It also has specialty sensors designed specifically to capture pH and temperature readings. And with multiple output options to communicate with a wide variety of devices, as well as a built-in display and keypad for programming right onsite, the Sigma 950 is as convenient as it is flexible.



Hach Sigma SD900 Automatic Sampler

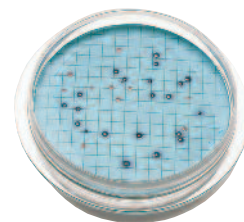
Delivers reliable results, easy operation and annual maintenance savings. Deploy the controller in various environments with a portable, indoor refrigerated or all-weather base.

- Easy-to-read display even in bright and dimly lit environments
- Simple programming and set up (less than 2 minutes for sampler routine) for fewer programming errors
- Extended pump tubing life (20,000 cycles) reduces annual maintenance costs and pump down time

MICROBIOLOGY

Microbiology Media

Hach's ready-to-use Microbiology Media eliminates measuring, mixing, and autoclaving necessary to prepare media. Glass and plastic ampoules, bottled media, agar plates, powder pillows, and containers afford maximum shelf life and ease of use. Available for testing/ measuring total coliforms, *E. coli*, yeast and mold, Heterotrophic bacteria, PRY, and more.



BART™: Easy Bacterial Detection

A simple and effective way to detect specific bacterial groups and algae in water. The Biological Activity Reaction Test (BART*) provides an excellent method for determining which specific type of bacteria is the source of an existing problem.

*BART is a trademark and patented product of Droycon Bioconcepts, Inc., U.S. Patent 4,906,566



LuminUltra Total Living Biomass Assessment (ATP)

Microbiological testing solutions provide feedback on contamination sooner for proactive control!

- Detect total active microorganisms in any type of sample
- Results in minutes - not hours or days - for real-time results
- Lab or field operable for maximum flexibility



HACH CHEMISTRIES & STANDARDS

Hach Chemical Reagents

A complete system that provides confidence in your test results. No one matches Hach's 60 years of experience providing accurate, practical, and easy-to-use analytical products. Chemical reagents include chlorine, ozone, CO₂, O₂, alkalinity, hardness and many more.

- Formulated to minimize interferences, test complexity and analysis time
- Designed for maximum stability and consistency
- Certified by rigorous ISO process procedures



AccuVac® Ampoules

Easy-to-use AccuVac reagents are ideally suited for analysis of many parameters, including ozone. The ampoules contain the precise amount of reagent needed for a single test. Simply snap the tip and the ampule draws in the correct amount of sample. Multiple ranges available.

OTHER TOOLS & SUPPLIES

BODTrak™ II Apparatus

Simplifies BOD testing—Just add a measured sample and one BOD Nutrient Buffer Pillow to each of six BOD bottles and connect them to the pressure sensors on the apparatus. It then does the rest.

Digesdahl® Apparatus (Patented)

Quickly digests a variety of organic and mineral samples without metal catalysts in as little as 10 minutes. Use to determine Kjeldahl nitrogen (crude protein), phosphorus, calcium, copper, iron, lead, and manganese.

Laboratory Supply

Hach offers a wide selection of labware to meet your analytical needs. Balances, bottles, glassware, hot plates, microscopes, pipets, pumps, samplers, and other apparatus are standard stock items. From Acidity to Zinc, Hach offers the labware for your test parameter.



Hach process instruments help you save money by controlling energy and chemical costs and optimizing staff efficiencies throughout the food facility.

CONTROLLERS



Hach Digital Controllers

Use any of the digital family sensors with the sc200 Digital Controller that accepts up to two sensors or the sc1000 Universal Controller that accepts up to eight sensors in any combination.

- Plug-and-play operation without special ordering or software configuration
- Many communication options including MODBUS® and wireless modes



Hach's Digital Sensor family includes ammonia, chlorine, chlorine dioxide, conductivity, DO, Nitrate, ORP, ozone, pH, phosphate, sludge blanket level, suspended solids, turbidity, and UV absorption.

ALKALINITY

APA 6000 Alkalinity Analyzer

Completely automated operation: self-cleaning, self-calibrating, and self-priming for low maintenance.

- Accurate alkalinity determinations to 1000 mg/L as CaCO₃
- Optional sample sequencing kit for using a single analyzer to monitor two separate sample flows



AMMONIA

AMTAX™ sc Ammonia Analyzer

Measures NH₄-N concentrations as low as 0.02 mg/L and as high as 1000 mg/L..



AMMONIA



APA 6000 Low Range Ammonia & Monochloramine Analyzer

- Auto calibration, priming and cleaning
- Minimal sample, reagent and standard consumption
- Graphical or numerical display of data/trends

FREE / TOTAL CHLORINE

CL17 Free/Total Chlorine Analyzer

0.035 to 5 mg/L free or residual chlorine

Dependable, colorimetric DPD free and total chlorine analysis.

- Chlorine analysis independent of pH, temperature, and sample flow
- Unattended operation up to 30 days
- Colorimetric DPD chemistry—fast, reliable, economical

**EPA
COMPLIANT**



CLF10 sc and CLT10 sc Free and Total Reagentless Chlorine Analyzers

Hach's answer to reagentless amperometric chlorine measurement.

- Compatible with Hach's "Plug-and-Play" Digital Controllers
- Real time process control
- EPA compliant according to Method 334.0

**EPA
COMPLIANT**

CONDUCTIVITY

3700 sc Digital Inductive (Electrodeless) On-Line Sensors

200 to 2,000,000 $\mu\text{S}/\text{cm}$

Monitor CIP and "push water" control with any of Hach/GLI's Inductive Conductivity Sensors. With no direct contact between the measuring element and the sample, they are contamination and corrosion resistant.

- Rugged, non-fouling design
- Wide measurement range
- Low maintenance design
- Eliminates polarization and electrode coating problems in harsh conditions.



Contacting Conductivity/Resistivity Sensors

0.057 to 200,000 $\mu\text{S}/\text{cm}$

Monitor membrane health and demineralizer beds with any of these Contacting Conductivity/Resistivity Sensors. Offered in a variety of materials and mounting styles to exacting tolerances to accommodate most configurations.

- High accuracy using Hach's DRY-CAL™ method
- Accurate temperature measurement



DISSOLVED OXYGEN

Hach LDO® Model 2, Optical Process Dissolved Oxygen Probe

Hach's next generation LDO (Luminescent Dissolved Oxygen) Probe requires no calibration for the entire 2 year life of the sensor cap, which means it is ready to start measuring your DO (Dissolved Oxygen) right out of the box. With an added cutting-edge 3D calibration procedure that is conducted prior to shipping, the probe will not drift and is more accurate than ever before.



HARDNESS



SP 510 Hardness Monitor

Maximize your softener cycle time and minimize your regeneration cost.

- Low maintenance—operates unattended for two months
- Low reagent consumption
- Rugged, lightweight, and self-contained
- Immediately signals hardness breakthrough to activate regeneration



APA 6000 Hardness Analyzer

0.05 to 10 mg/L for hardness as calcium carbonate

Accurate, continuous hardness measurement.

- Accurately and continuously measures up to two sample streams (requires sample sequencing kit)
- Makes your water softening system more efficient and less costly

ORGANICS

UVAS sc Sensor, 1 mm, 2 mm or 5 mm, with sc200 Controller

Continuous UV 254 Absorbance/Transmittance measurements with the UVAS sc Sensor can be used to protect plant treatment processes from high organic loads or for surrogate BOD, COD, and TOC measurements, with repeatable, accurate measurement.

- On-line analysis allows treatment plants to operate more efficiently
- Flow through design with no sample chamber and self-cleaning wipers to reduce maintenance
- Stable factory calibration saves time and reduces maintenance costs



9185 sc Amperometric Ozone Analyzer

- Great for readings in low conductivity water with no interferences from oxidants or pH
- Reagentless analysis of ozone—ion-selective membrane separates electrolyte from sample water
- Plug-and-play with digital controllers simplifies setup
- Integral temperature sensor provides more accurate readings
- Includes 2 years of typical maintenance parts



pHD™ Digital Differential On-Line pH/ORP Sensors

For moderate- or high-conductive applications ($>10 \mu\text{S}/\text{cm}$) such as monitoring cooling water blowdown, drum boiler water, or raw water treatment.

- Field-proven differential electrode measurement technique offers better accuracy
- Replaceable salt-bridge/protector simplifies maintenance and extends sensor life
- Sensor requires a Hach sc200 or sc1000 Digital Controller



8362 High Purity Water System

Simple to integrate. Simple to operate.

- Works with sc200 platform
- -1500 to +1500 mV ORP range
- 0 to 4 bar (58 psi) pressure range



PHOSPHATE / SILICA

Series 5500sc Phosphate or Silica Analyzer

Lower Maintenance. Less Downtime.

- Only two liters of reagent are required for the analyzer to perform unattended for up to 90 days.
- The industry's only pressurized reagent delivery system eliminates the frequent maintenance associated with pumps.
- Predictive diagnostic tools, including Hach's proprietary Prognosys technology, warning LEDs, and high-visibility notification screens let you avoid unplanned downtime.
- No more dripping reagents on the instrument, the floor, or your clothing while fumbling with tubes and straws. Match the color-coded cap to the sealed reagent bottle and twist.
- Grab Sample In and Grab Sample Out features allow quick analysis of a grab sample poured into the analyzer, and facilitate taking a sample out of the analyzer to verify in a lab test.



SLUDGE LEVEL



SONATAX sc Sludge Blanket Level Probe

Ideal tool to optimize sludge extraction, manage recirculation, and warn of potential solid wash outs, or process upsets by continuously measuring the depth from the surface or height from the tank floor. Maintenance is reduced with the probe's innovative wiper design. Automatic frequency adjustment provides superior accuracy.

TOTAL ORGANIC CARBON

Hach BioTector B7000 TOC Analyzer

A patented self-cleaning oxidation technology enables BioTector analyzers to easily handle difficult samples and significantly reduce the maintenance schedule and costs associated with traditional on-line measurement. BioTector analyzers eliminate build up issues from salts, particulates, fats, oils and greases that lead to drift and high maintenance. Configurations are available for TOC, TOC/TN, and TOC/TN/TP.

- Superior Reliability—Typically 99.7% uptime
- High Dependability—Patented two-stage advanced oxidation (TSAO) technology handles even the most challenging applications
- Smart Design—Self-cleaning technology and oversized tubing eliminates filtration and prevents clogging and sample contamination



Hach BioTector B3500c Analyzer

Maximum uptime and reliability for TOC analysis in condensate applications. Using patented technology, only requiring scheduled maintenance every 6 months, allowing for dual stream monitoring, and having one of the most compact analyzer footprints, the Hach BioTector B3500c delivers 99.8% uptime in condensate applications with the lowest operating cost.

- Worry-free TOC
- Lowest Cost of Ownership
- Small footprint = Critical Wall Space Savings
- Reagent Costs that Don't Kill the Bottom Line
- One Instrument for Multiple Streams



TURBIDITY & SUSPENDED SOLIDS

SOLITAX® sc Sensors

- Accurate, color-independent measurements
- Self-cleaning device prevents erroneous values
- Easy one-point calibration
- Sensors work with a Hach sc200 or sc1000 Digital Controller



1720E Low Range Turbidimeter

Provides the sensitivity and stability required to continuously monitor turbidity at very low levels (0 to 100 NTU).

- Bubble removal system eliminates the most significant interference in low level turbidity measurement
- Simple plug-and-play connections
- Two year warranty

**EPA
COMPLIANT**

FilterTrak 660™ sc Laser Nephelometer

The laser turbidity method used in the FilterTrak 660 sc Laser Nephelometer makes ultra-low measurement of turbidity possible to optimize RO filtration systems.

- 0.0 to 5.0 NTU range
- Detects submicron-size particles, a precursor to larger particles



**EPA
COMPLIANT**

HACH SERVICE PROGRAMS



At Hach we understand that your operation's problems are unique and we have developed Hach ServicePlus® Certified Programs that are vital to helping you solve your maintenance and support problems.

Whether it is a lack of resources or skills, an instrument that is down, bringing your plant back online or the need for a predictable budget, we have programs to fit the unique challenges you face in your organization.

Get your problems solved with Hach ServicePlus programs.

hach.com/service | 800-227-4224



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**For more information, visit hach.com/foodguide
or call toll-free 800-227-4224.**

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Be Right™

