Complete Water Analysis Solutions for Power and Steam Generation

- Ensure Online Energy Supply
- Protect Equipment
- Save Time and Costs
The Water Analysis Experts
for Power and Steam Generation

With more than 85 years as the leading expert in water quality analysis, Hach® provides the knowledgeable and responsive support team you trust to address your unique needs for water and steam applications throughout your entire process.

Hach provides solutions for laboratory, online and portable products whether your application is routine or challenging. We also provide service and training solutions that support you and our products.

Hach has the most comprehensive coverage for all types of water quality from ambient water to ultrapure. Our breadth of product solutions support all power plants whether fossil or nuclear, as well as cogeneration and steam production.

Featured water analysis solutions

Silica / Phosphate

5500sc Silica or Phosphate Analyzer
Avoid downtime with the industry’s only pressurized reagent delivery system.
• 90 days of continuous runtime
• Predictive diagnostics / maintenance technology
• Intuitive user interface
• Verify easily with Hach lab products so you don’t waste time second-guessing

Sodium

NA600sc Analyzer
Protect the metallurgy in your system and monitor for leaks at sub ppb. Our newest analyzer has a smaller footprint and uses the same interface as the 5500 sc.
• Automatic calibration
• Automatic electrode reactivation
• Optimum response time in a variety of power applications
• Reagent replenishment only every 90 days

Influent water treatment
Demineralization
Make-up water
Steam cycle
Cooling Water
Return Condensate
Wastewater
**Dissolved Gases**

Orbisphere K1100 Optical $\text{O}_2$ Sensor

Achieve high accuracy in low ppb range with no membranes.

- Maintenance one time per year
- K1200 available for irradiated water applications, providing real-time data while reducing overall dose
- No interference by magnetite, hydrogen or flow

Orbisphere 510 Multi-Channel Controller

Provides the complete solution in dissolved gas monitoring.

- Accurate, repeatable, trace-level measurements
- Data management
- Complements Orbisphere sensors

Orbisphere Hydrogen TC Sensor

Monitor hydrogen in the power production process.

- Patented thermal conductivity (TC) sensor
- Continuous measurements
- Gaseous or liquid samples

Orbisphere 3100 Portable Optical $\text{O}_2$ Analyzer

Mitigate risk with the most rugged portable $\text{O}_2$ analyzer in the power industry.

- Accurate results in seconds; ready to measure right out of the box
- Calibration one time per year
- Internal data storage and export via USB interface

Orbisphere GA2400 $\text{O}_2$ EC Sensor

Achieve highly accurate results for very low oxygen levels.

- Unrivaled highly accurate reading at ±1% at very low DO levels down to 0.1 ppb
- Easy and fast maintenance
- Robust for harsh environments
**Conductivity / pH / ORP**

9523 sc Cationic Conductivity Analyzer

Calculate accurate pH measurements without interference from contaminants.

- More contaminant-resistant than traditional pH probes

9525 sc Degassed Cation Conductivity Panel System

Measure conductivity following the removal of CO₂ gas from the sample stream.

An integrated system, now available with a regenerative cooling option that measures:

- Specific conductivity (SC)
- Cation conductivity (CC)
- Degassed cation conductivity (DCC)
- Calculated pH

Contacting Conductivity Sensors

A broad range of product options is available to meet your unique needs.

- Robust construction
- 316 stainless steel
- Integrated temperature sensor

SC200/9500 Universal Controller

Deploy the most versatile controller on the market.

- Compatible with a broad range of digital and analog sensors
- Communication module-ready
- Advanced features for ease of use

8362 pH or ORP Sensor for High Purity Water

High-purity applications require accurate temperature sensitivity and a constant flow of electrolyte to the sample stream.

- Self-pressurizing electrode

**Total Organic Carbon (TOC)**

QBD1200 Laboratory TOC Analyzer

- One 90-minute calibration per year
- Low total cost of ownership
- 95% less carryover

BioTector B3500c TOC Analyzer

- Identify a wide range of contamination with a powerful, patented oxidation technology
- Certified uptime of 99.7%, maintenance only 2x per year
- TIC, TOC and VOC analytics in a single analyzer

FP360 sc Oil in Water Sensor

- Continuous online monitoring
- Low maintenance
- Easy to clean
Turbidity & Corrosion Monitoring

TU5 Series Lab and Online Turbidimeters
A patented optical design delivers the best low-level precision and sensitivity.
- 98% less surface area to clean
- Online and lab results that match

DRB200 Reactor Heating Block
Combine DRB200 and lab tests with DR3900 and TU5400 online turbidimeter to get a clear view on:
- Iron transport
- Total and dissolved iron
- Ultra low range iron

Photometry

DR3900 VIS and DR6000 UV-VIS Photometers
Trace your sample from collection to preparation, sample analysis, to documentation.
- RFID technology
- Pre-programmed with power industry-specific methods
- Measures chlorine, silica, phosphate, oxygen scavengers, TOC, iron and copper

Disinfection

CL17sc Colorimetric Chlorine Analyzer
Take control of challenging water treatment processes with an analyzer that maintains accuracy across a wide range of sample conditions.
- Reliable, accurate colorimetric chlorine analysis using DPD chemistry
- Monthly maintenance completed in minutes
- Comprehensive diagnostic features help you verify and troubleshoot quickly and efficiently
- Available Claros Mobile Sensor Management enables remote access to chlorine and instrument data
- Reagent-free solutions for chlorine, chlorine dioxide, and ozone measurements also available
Microbial Load

EZ7300 ATP Analyzer
Monitor total bacterial and pathogen load in water.
- Complete ATP recovery, differentiating living biomass from non-living
- Complies with ASTM D4012-81
- Low maintenance

Hardness & Alkalinity

EZ4000 Single-Parameter Titrator
Smart automatic features for validation, priming, and cleaning providing excellent analytical performance and maximized uptime.
- Rugged mainframe with compact footprint
- Analysis of up to eight sample streams

EZ5000 Multi-Parameter Titrator
Measure up to four parameters in one analyzer: total hardness, calcium hardness, total alkalinity, and free alkalinity. Application areas include:
- Raw water intake
- Make up water
- Cooling water conditioning and event monitoring
Meters & Probes
SL1000 Portable Parallel Analyzer
Get highly accurate chloramination results, with less opportunity for errors, in a fraction of the time.
• Up to six parameters in parallel
• Automation, internal temperature control, and self-contained chemicals to avoid manual steps

AT1000 Automatic Titrator
Now anyone in the laboratory can perform Potentiometric Titrations that deliver fast, accurate and reliable results.
• One-touch automation
• Pre-set application packs
• Ready-to-use straight from the box

Hach Support Online (HSO)
Service & Support
Online Support
Technical Training
Service

Hach ServicePlus® Programs

Service & Support

Technical Training

Service

Meters & Probes

SL1000 Portable Parallel Analyzer

AT1000 Automatic Titrator

Hach Support Online (HSO)

Hach Training Center

Hach ServicePlus® Programs

Meters & Probes

SL1000 Portable Parallel Analyzer

AT1000 Automatic Titrator

Hach Support Online (HSO)

Technical Training

Service

Hach ServicePlus® Programs
Hach Solutions by Parameter

All parameters are available as both process & laboratory solutions.

Water Treatment
- Chloride
- Chlorine
- Chlorine Dioxide
- Conductivity/Total Dissolved Solids (TDS)
- Dissolved Oxygen
- Hardness/Alkalinity
- Hydrazine/Oxygen Scavenger
- Oxidation-Reduction Potential
- Ozone
- Microbial Load (ATP)
- pH
- Silica
- Sodium
- Total Organic Carbon (TOC)
- Turbidity and Suspended Solids

Steam Cycle
- Ammonia
- Chloride
- Conductivity/Total Dissolved Solids (TDS)
- Copper
- Dissolved Oxygen
- Hydrazine/Oxygen Scavenger
- Hydrogen
- Iron
- Oxidation-Reduction Potential
- pH
- Phosphate
- Silica
- Sodium
- Total Organic Carbon (TOC)

Cooling Water
- Chloride
- Chlorine/Oxidants
- Chlorine Dioxide
- Conductivity/Total Dissolved Solids (TDS)
- Copper
- Hardness/Alkalinity
- Microbial Load (ATP)
- Microbiology
- Molybdate and Other Corrosion Inhibitors
- Oxidation-Reduction Potential
- Ozone
- pH
- Sodium
- Total Organic Carbon (TOC)