

Water Technologies & Solutions

TrueSense* for Cooling

imagination ... innovation ... reality

InSight

Equipment Name	Unit	Flow	Temp	Pressure	Efficiency	Power	Cost
Chiller 1	1000	1000	1000	1000	1000	1000	1000
Chiller 2	1000	1000	1000	1000	1000	1000	1000
Chiller 3	1000	1000	1000	1000	1000	1000	1000
Chiller 4	1000	1000	1000	1000	1000	1000	1000
Chiller 5	1000	1000	1000	1000	1000	1000	1000
Chiller 6	1000	1000	1000	1000	1000	1000	1000
Chiller 7	1000	1000	1000	1000	1000	1000	1000
Chiller 8	1000	1000	1000	1000	1000	1000	1000
Chiller 9	1000	1000	1000	1000	1000	1000	1000
Chiller 10	1000	1000	1000	1000	1000	1000	1000

TrueSense for Cooling

suez

TrueSense for Cooling

core analytes module

suez

ready for the resource revolution



what is TrueSense?

The TrueSense family of technologies has changed the way our customers look at their cooling system operations. SUEZ combines the **best of both worlds**—the most advanced technologies in water chemistry, along with innovation in automation and process control to help you get the most out of your cooling system. SUEZ’s patented GenGard* chemistries with Stress Tolerant Polymer (STP) provides the perfect complement to TrueSense technology.

Never before have technologies come together with such a complete solution for operating, managing, and optimizing open evaporative recirculating cooling water systems.

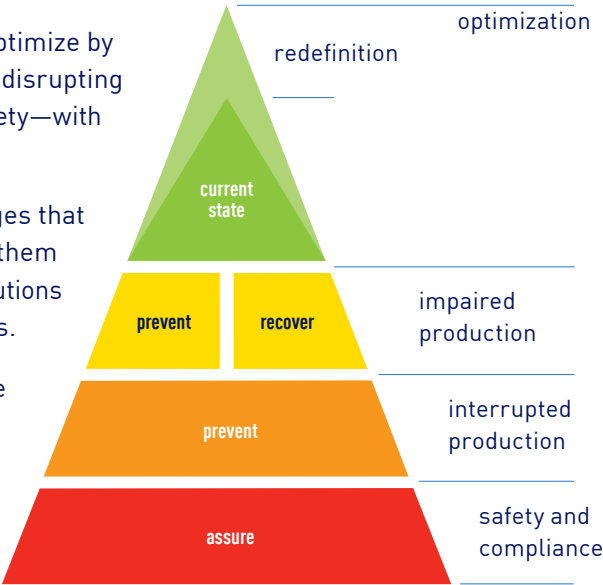
TrueSense for Cooling: redefining optimized

Owners and operators of cooling water systems share a common set of priorities. First and foremost is safety and compliance, assuring that your operations protect people and the environment with the greatest of care. Next, you must prevent any unplanned loss in your production, whether due to inadequate heat exchange or capital equipment failure.

After achieving those critical levels of performance, you can optimize by reducing the total cost of cooling operations over time without disrupting production, experiencing catastrophic loss, or compromising safety—with the greenest footprint possible.

While the basic priorities have not changed much, the challenges that today’s business and industrial world must overcome to meet them have. You need a partner with the knowledge, experience and solutions to help identify, understand and overcome these new challenges.

TrueSense enables you to reset your expectations and redefine what optimized can mean to your cooling water operations.



with TrueSense, the levers of optimization can include:



- **chemicals usage.** Applying the right amount of chemicals at the right time—nothing more, nothing less. Consistent application with minimal variation ensures system performance and the confidence to engage in other improvements that contribute to lowering total operating cost.



- **water use and consumption.** As freshwater becomes increasingly scarce and expensive, we understand your need to use less. With SUEZ’s innovations, you can confidently consider operating under conditions that minimize the use of fresh water, and/or consider alternative sources of reused or recycled water that previously would have been considered an unmanageable technical risk.



- **human productivity.** Employee productivity is a focus of every business. With TrueSense technologies, your people can be more productive.

No matter what your total cooling water cost may be, SUEZ can help you streamline your current operating process.

imagination becomes reality

TrueSense for Cooling

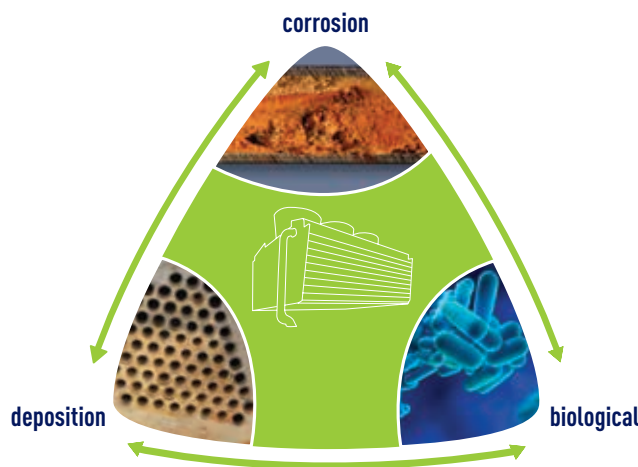
SUEZ’s TrueSense for Cooling platform is the result of extensive research and technology development, tested and validated in real-world industrial applications.

Effective cooling water treatment must include careful management of the interrelationship between corrosion, deposition, and microbiological activity. While previous treatment methods required individual and manual measurement for each of the three applied elements of a treatment program—orthophosphate for steel corrosion control, polymers for deposit control, and free halogen for microbiological control—these intensive, manual assessments could not be performed accurately or frequently enough to realize the full opportunity of protecting asset performance and minimizing cost.

SUEZ’s TrueSense for Cooling was designed to provide a direct measurement of the functional chemistries that drive success for all three dimensions of successful cooling water management. This means optimum target points for available polymer concentration, soluble orthophosphate and free halogen, based on the specific conditions of your cooling system. TrueSense ensures that the required polymer concentration is always maintained, despite fluctuations in demand that result from system variations in stress which consume the applied polymer.

Maintaining adequate soluble orthophosphate in the system is critical to ensuring effective steel corrosion inhibition. TrueSense technology achieves this by actually measuring both soluble and insoluble orthophosphate and automatically monitoring their difference. Polymer addition is then automatically adjusted to maintain the difference to an acceptable level, such that the corrosion protection is not compromised and phosphate is not lost to the formation of insulating deposits on heat transfer surfaces.

Unique to SUEZ, TrueSense for Cooling takes measurement and control technology for multiple analytes to the next level—with a single detection platform that offers simplicity, stability, and easy installation. What’s more, SUEZ can configure a unique solution designed to meet your specific goals and budget.



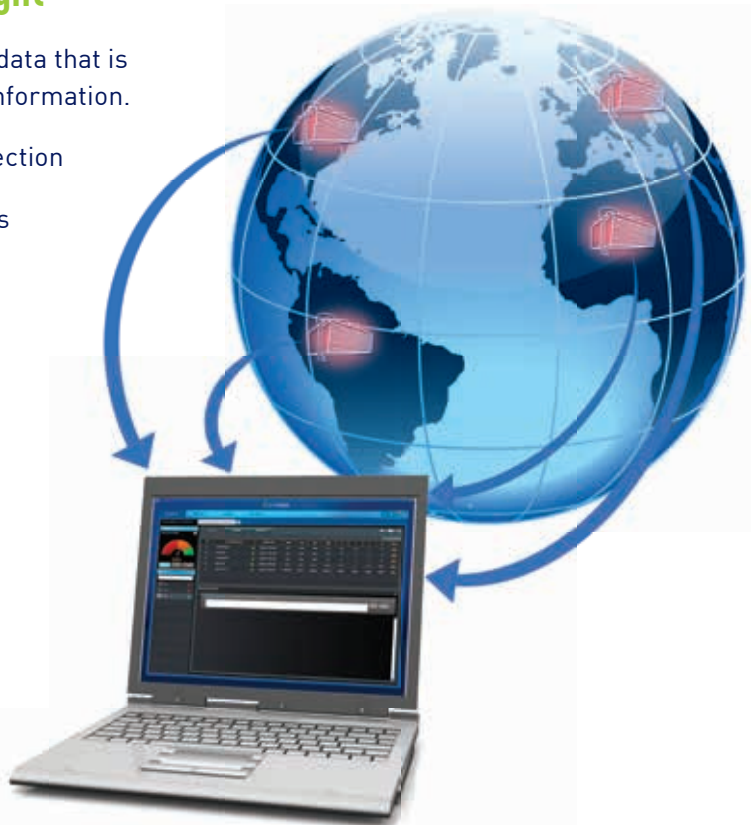
knowledge management with InSight*

Effective cooling water operations depend on data that is transformed into meaningful and actionable information.

- Visualizing current conditions, and their direction
- Diagnosing problems and seeing opportunities for improvement
- Alarming on events or trends before they threaten production or assets
- Reporting on key performance indicators and their impact on business objectives

But all stakeholders at your plant do not have the same needs in terms of content, format or frequency of information.

InSight, SUEZ’s knowledge management platform, enables the right information in the right format to reach the right people when they need it most.



InSight distills extensive amounts of data from multiple key parameters into a simple aggregate performance indicator tailored to the view of the user.



Clear and visually concise dashboards enable users to simultaneously assess the state of the key performance indicators that dictate overall asset health.



Drill down capabilities allow for selection, review, and analysis of individual parameters.

Whether the “view” you need is a single application or asset, a cluster of like assets, an entire plant or all the plants in your company, InSight enables you to “see it.”



wireless connectivity. With the onboard wireless gateway, the data from your TrueSense system is wirelessly transmitted to InSight. This avoids the excessive cost of running communication wires in industrial plants, gets customers connected fast without hassles or plant network intrusion concerns, and at a low cost.



smart alarming. The alarming functions of InSight consider how far and for how long a given parameter has been outside its control limits. Needless alarms are eliminated, helping people act with speed and priority.



systems reliability center. SUEZ's Systems Reliability Centers (SRC), an integral part of the InSight and TrueSense platforms, are physical facilities staffed by dedicated analysts and managers. This team of experts provides the means to troubleshoot and resolve account issues that bring value to our customers. Once you have the data from one or more cooling tower assets active with InSight, the professionals of the SRC watch over those assets every day. They look for problems, and notify SUEZ field teams when they see one before it results in a failure. It's an extension of the SUEZ field team, complementing local efforts by providing a new level of assurance and reliability.



take it mobile. The functionality of InSight is complemented with mobile tools that enhance the productivity of your plant personnel. After connecting your data to InSight, you will immediately be able to utilize the system via your tablet or smart phone. SUEZ has personalized the experience to get the right information, to the right people, at the right time. As a result, you can make fast and conclusive decisions to optimize the water and process chemicals applications that enable your production assets.

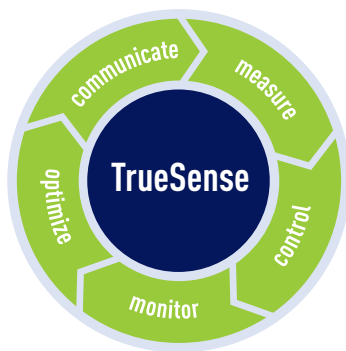
The mobile applications provide the user with the same abilities to see system health, current data, trends, reports and even enter operational data and notes. These mobile tools can be used for both data entry as well as accessing all the historical data using the numerous methods offered by InSight.

the symphony of TrueSense

The TrueSense and InSight platforms, and the unrivaled chemistry of GenGard* is the comprehensive answer to all your cooling water system needs. Each component has been designed to work together to give you the best possible performance from your cooling water system—while meeting your goals for total cost optimization, minimizing the potential for failures that can compromise production and damage capital equipment.



You've defined your business goals, now let SUEZ help you realize the full potential of your operations. Contact your SUEZ representative to learn more about how our complete cooling solution portfolio can help you achieve extreme cost performance and value. Find a contact near you by visiting www.suezwatertechnologies.com.



TrueSense is a suite of complementary technologies from SUEZ that represent world-class automation and process control capability. Your SUEZ representative can help you realize the impact of our total solution for achieving extreme cost performance and value from your cooling systems.



SUEZ Account Managers take the time to understand your challenges, and listen for opportunities to create value for you.

Find a contact near you by visiting www.suezwatertechnologies.com and clicking on "Contact Us."

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GEA18272C Jan-14

