



HELPING YOU PRODUCE STEAM COST-EFFECTIVELY

We innovate to provide you with a return on your investment in Nalco Water. 3D TRASAR technology helps you optimize your total cost of steam production, avoid production stops due to unexpected tube repairs, as well as optimize total cost of energy and water.



PROVIDING YOU WITH A STATE-OF-THE-ART SOLUTION FOR YOUR STEAM PRODUCTION

Applying all state-of-the-art elements of the 3D TRASAR technology maximizes its performance. Combining the advanced chemistry, innovative control, 24/7/365 supervision and on-site expertise far outweighs the sum of these interconnected parts. 3D TRASAR technology does not only treat your water, but it improves your energy usage, minimizes your water intake, maximizes your steam production and optimizes your total cost of operation as well.



We have a unique understanding of the role steam plays in customer processes and an unparalleled ability to help customers across nearly every industry. If you would like to learn more, contact us today or visit www.ecolab.com/nalco-water.



NALCO Water
An Ecolab Company

3D TRASAR™ BOILER AND HARDNESS RESPONSE PROGRAM

HELPING YOU PRODUCE
STEAM AND SAVE ENERGY

Nalco Water, an Ecolab Company

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Solving customer challenges with global impact

By 2030, it is estimated that the world will need 40% more water and 30% more energy. 3D TRASAR Technology for Boilers has saved Nalco Water customers 11.4 million m³ of water, 6.5 million GJ of energy and 340 thousand tonnes of air emissions in 2016. This is the equivalent of the drinking water needs of approx. 10.4 million people, the energy use of 86 thousand people and carbon dioxide absorption of 87 million trees per year.

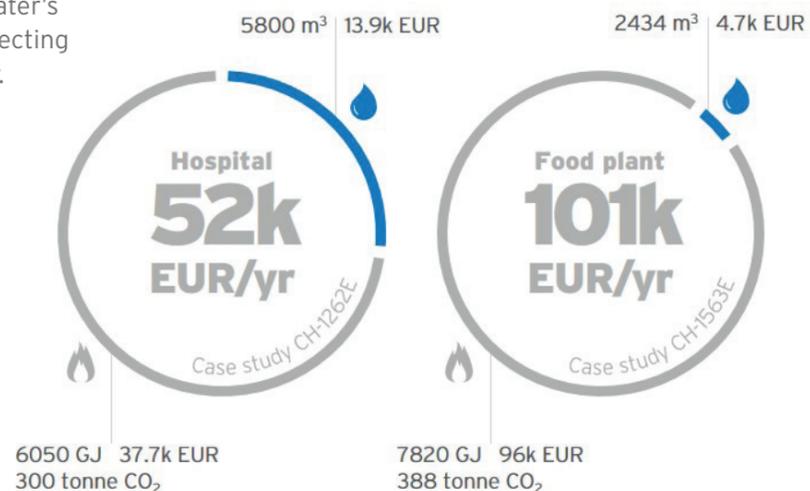


PRODUCING STEAM EFFECTIVELY

Energy is expensive. Water is becoming scarce. Steam production requires significant quantities of both. Predicting issues ahead of time is challenging with periodic operator inspections. If your process depends on reliable steam capacity, Nalco Water can help safeguard your production and reduce your energy usage, ultimately enabling you to produce steam effectively with its 3D TRASAR Boiler and Hardness Response Program. Nalco Water's technology monitors continuously, detecting and acting on issues before they occur.

REDUCING WATER, ENERGY AND CARBON DIOXIDE

Nalco Water is helping their customers who need to produce steam, do so more effectively and at the same time minimize their water usage, maximize their results and optimize their total cost of operation. It accomplished the following reduction in water, energy and carbon dioxide savings with its 3D TRASAR Boiler Technology at two Nalco Water customers in Europe.



6.5M
GIGAJoule
ENERGY SAVED IN 2016

340K
TONNES CO₂
EMISSIONS AVOIDED
IN 2016

MINIMIZE
WATER
MAKE-UP WATER INTAKE

MAXIMIZE
RESULTS
ENERGY USAGE, CARBON
FOOTPRINT, STEAM
PRODUCTION, OPERATOR
SAFETY

OPTIMIZE
COSTS
OPERATION, ENERGY,
WATER, ASSETS, REPAIRS

HELPING YOU PRODUCE STEAM ENERGY-EFFICIENTLY

Boilers use less energy when tubes are free from scaling and heat transfer is at its best. We minimize scaling with our NexGuard™ anti-scalant chemistry. Thanks to our 3D TRASAR Boiler Controller, the concentration of our traced chemistry in the boiler feedwater is accurately monitored and controlled. Hardness excursions can still cause scaling. We therefore monitor hardness with our 3D TRASAR Hardness Analyzer. NexGuard anti-scalant chemistry dosage increases when hardness levels are high to avoid scaling.

Boilers use less energy and less make-up water when operating at higher cycles of concentration. Our ability to accurately monitor and control NexGuard anti-scalant chemistry allows you to operate your boiler at higher cycles of concentration. This results in less energy usage and water intake than with traditional dosage control methods.

HELPING YOU PRODUCE STEAM RELIABLY AND SAFELY

Reliable steam capacity requires clean tubes without scale and corrosion, as too much scale and corrosion leads to unexpected tube repairs and production stops. We minimize scaling with our NexGuard anti-scalant chemistry, 3D TRASAR Boiler Controller and 3D TRASAR Hardness Analyzer. We minimize corrosion by monitoring corrosion stresses and by controlling oxygen scavenger chemistry dosage with our 3D TRASAR Boiler Controller. Minimizing corrosion also avoids tube ruptures and thereby increases operator safety. It is imperative to maximize operator safety by following boiler best practices, as stipulated by European norms (e.g. EN 12953-10), standards (e.g. VGB-S-010-T-00: 2011-12.EN) and local legislation.

In addition to our activities on-site, we maximize reliable and safe boiler operation through our System Assurance Center, where our 100 highly trained specialists monitor the performance of thousands of water treatment applications 24/7/365 in over 100 countries, thanks to our 3D TRASAR Technology. They determine the appropriate and corrective response for 1.1 million alarms and 64,000 critical system upsets per year, enabling water, energy and cost savings to customers.

