



3D TRASAR™ Technology for Canning and Bottling Saves Kroger \$142,000 per Year

CASE STUDY - FOOD & BEVERAGE

CH-2148

BACKGROUND

Kroger is among the world's largest food retailers with a strong commitment to supply their customers with quality products at an exceptional value. Kroger's focus on quality also extends through their operations. In 2012, at the Kroger beverage processing plant in Dallas, Tex., they installed a new tunnel cooler on a hot fill bottle line. This was the first and only tunnel cooler in the Kroger exclusive beverage plant and a critical asset in their new hot fill production line operations. Almost immediately after implantation, it became evident that the original biocide program and monitoring system they selected was insufficient to control the bacterial activity in the tunnel. This ineffective program, which was in place from 2012-2017, caused additional maintenance for the tunnels that ultimately cost Kroger more than \$100,000 per year to maintain.

SITUATION

Due to excessive microbiological build up in the tunnel cooler, Kroger had to hire additional labor in conjunction with plant manpower to perform a weekly, manual clean-out. In addition to the weekly cleaning, the tunnel water had extreme buildup of slime and created intense odors. To mitigate the slime and odor, they dumped and refilled the tunnel water every 48 hours. Both the weekly cleaning and the 48-hour water refills resulted in excessive water use and increased safety risk for the employees and contractors implementing the cleanings.

To combat the microbiological problem, Kroger increased the chemistry dosage rates, resulting in higher chemical costs with no significant reduction in microbiological buildup. Kroger turned to Nalco Water for support in September 2017.

CUSTOMER IMPACT



ECONOMIC RESULTS

Conserved 1 million gallons of water



Saved \$6,600 in water costs, using \$6.60/1,000 gallons

Reduced chemical consumption



Saved \$36,000 in chemical costs

Eliminated manual chemical cleaning



Saved \$100,000 in labor costs

Nalco Water implemented a more holistic biocide program and helped Kroger improve the efficiency and effectiveness of the chemical dosing, water consumption, manual labor and maintenance costs within their tunnel cooler.

SOLUTION

Using a complete program approach, Nalco Water was able to provide a solution for Kroger through an enhanced biocide and automation program that improved the operation, cleaning and maintenance of the tunnel. The Nalco Water 3D TRASAR™ Technology for Canning and Bottling utilizes a cloud-based platform to easily track the chemistry program performance and provide visibility of program parameters to the customer and the Nalco Water representative.

3D TRASAR for Canning and Bottling features patented self-cleaning technology specifically designed for high-fouling environments such as tunnel coolers. This proved to be key to the success of this program. The technology was installed to measure the dosage and automate the chemical program. In addition to the biocide and automation program, an automated boil-out program was customized using Kroger's automation interface. This program eliminated the need for the weekly manual cleanings by a contractor.

CONCLUSION

Kroger was able to maintain their strong commitment to quality and efficiency in their operations by partnering with Nalco Water. Nalco Water's holistic biocide program solved the customer problem by incorporating a prevention, maintenance and automation approach that resulted in \$142,000 worth of annual savings from chemistry, contractors and water reuse.

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