

Safeguarding Product Integrity with Pureline DO

Mibelle Ltd develops brands and proprietary solutions in Personal Care & Beauty, delivering high-quality products tailored to customer and consumer needs. Pure water is essential in their manufacturing process, used both for cleaning-in-place (CIP) and as a product ingredient.

To maintain microbiological integrity, Mibelle Ltd uses ozone to sanitize their pure water storage tank and distribution ring mains. However, residual ozone can be detrimental to product quality, making its complete removal before water use critical.

End user company profile

Mibelle Ltd is a company specializing in the development, manufacturing, and supply of personal care, household, and cosmetic products. Known for its focus on innovation, sustainability, and quality, Mibelle Ltd combines scientific expertise with cutting-edge technology to create effective, environmentally responsible products that meet the evolving needs of consumers and business partners alike.



End user

Mibelle Ltd

Industry

Cosmetics

Application

Ozone Removal



Goals

Mibelle needed a solution that would allow for:

- Safe Ozone Removal: Eliminate residual ozone from process water without leaving chemical traces.
- Product Protection: Ensure water used in production is free from contaminants.
- System Monitoring: Enable easy monitoring and logging of system parameters with proven performance.

Challenges

The challenge was that ozone is dosed at 1.6 ppm overnight to disinfect the pure water tank. Before production, all residual ozone must be removed to prevent adverse effects on products.

Solution

Mibelle Ltd selected two Pureline DO AF 0020 Low Pressure UV units from Nuvonic, installed in series after the pure water storage tank. This configuration provides redundancy—if one system fails, the other ensures full UV treatment. Their operation process is:

- Overnight: Ozone generators operate with UV systems off.
- Morning: Ozone generators switch off, UV systems activate, and water is recirculated through UV units.
- Ozone levels are monitored until undetectable, signaling readiness for production.

Results and Benefits

- Rapid Ozone Removal: Residual ozone is eliminated within minutes, enabling production to start in less than 30 minutes.
- Continuous Disinfection: UV systems provide ongoing protection against bacteria, viruses, chlorine, chlorine dioxide, and ozone throughout the day.
- Operational Confidence: The Pureline range delivers energy-efficient, application-optimized protection, seamlessly integrating into Mibelle's process.

“We were looking for a solution to remove ozone following sanitisation of our process water tank. Based on our experience with a Nuvonic UV we have on-site, we had no hesitation in contacting Nuvonic for a solution. Following discussions on the process, we chose the Pureline DO AF 0020. We have a maintenance programme in place for the UVs which entails two visits per year and are very happy with how they are performing”.

Andy Crossley,
Projects Manager, Mibelle Ltd



Energy savings



Ozone Removal



Continuous Disinfection

