

PureLine



AFX

SMART UV SOLUTION FOR
FOOD AND BEVERAGE



Maximised efficiency with optimized chamber design

Low cost of ownership and energy consumption

Adaptive Temperature Technology

www.nuvonic.com

NUVONIC

Over 100 Years of UV Innovation

Nuvonic brings together the heritage and expertise of Aquionics, Berson, Hanovia and Orca under one global vision: creating a safer, cleaner, healthier world through the power of UV technology. As the only worldwide innovator delivering chemical-free, **full-facility disinfection for water, air and surfaces**, we provide trusted protection for people and processes across industries.

Our century of pioneering science and market insight empowers us to engineer solutions that tackle today's contamination challenges—and anticipate tomorrow's. Driven by environmental responsibility and a passion for innovation, **we continue to explore new applications and industries where UV technology can help nature do what it does best: protect, purify and sustain.**

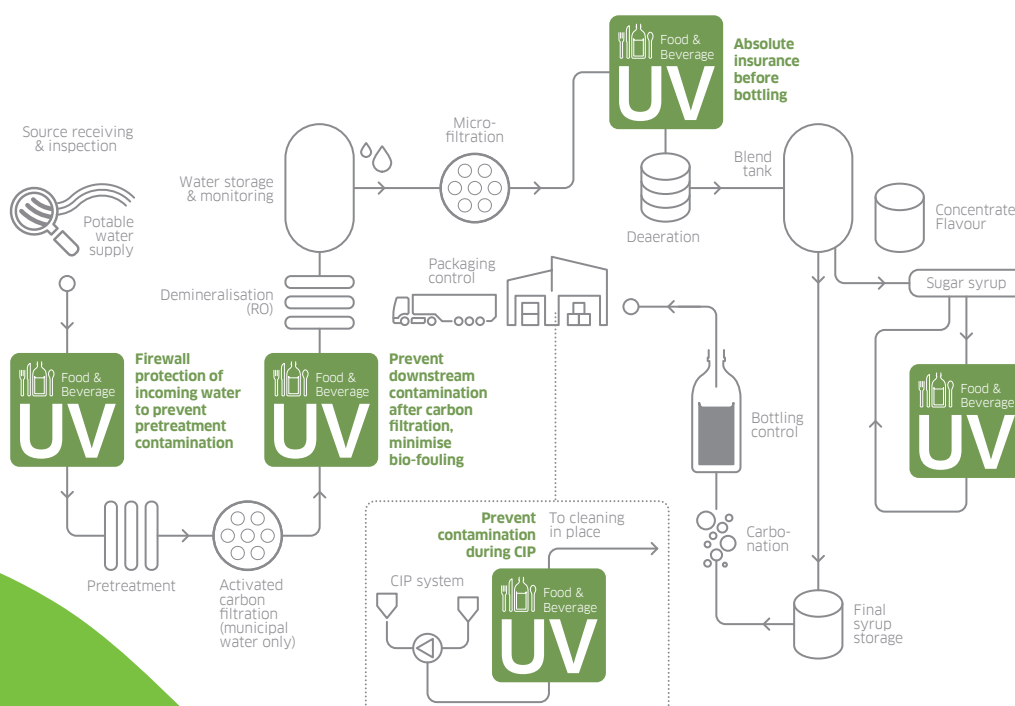
UV Treatment For Food & Beverage

Food contamination and quality management remain among the biggest challenges in the food and beverage industry. These issues affect the entire distribution chain, particularly food manufacturing and processing operations.

UV disinfection can be deployed throughout a beverage process, protecting water and other process liquids from pre-treatment onwards while reducing dependence on chemicals such as chlorine. With successful deployments across the full process, Nuvonic's UV technology delivers proven, industry-leading, chemical-free assurance at every stage.

UV can also be applied at different stages of these processes:

- **Process Water**
- **Air Coolers & Cooling Coils**
- **Recirculation Devices**
- **Humidifiers**



PureLine

Precision UV engineering for the world's most demanding food and beverage environments.

PureLine is a chemical-free UV water treatment solution designed for the food and beverage industry. Proven, validated and energy-efficient, it delivers **reliable disinfection that eliminates bacteria, viruses and emerging contaminants** – without affecting taste or odour.

From water intake to final product safety, PureLine integrates seamlessly into your process to **protect critical production stages** and safeguard quality, uptime and compliance.

Trusted by some of the world's leading beverage brands, Nuvonic UV systems deliver reliable, chemical-free disinfection **with lower capital investments and operating costs**.

- Carbonated Drinks
- Juice & Concentrates
- Bottled Water
- Brewing & Wineries
- Distilleries
- Dairy
- Meat Processing
- Brine
- Processed & Packaged Foods
- Salad Washing
- And more

PureLine AFX

Advanced UV Systems for Food & Beverage

AFX is Nuvonic's next-generation UV system, an evolution of the AF platform renowned for trusted performance, reliability and superior quality. This delivers optimised disinfection for food and beverage applications in an easy-to-install design—significantly reducing energy consumption and total operating costs.

Nuvonic Smartray™ lamps

A 16,000-hour lamp life minimises maintenance downtime and lamp change-outs, lowering lifetime operating costs.

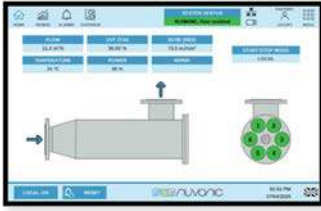
Maximised efficiency with optimized chamber design

A robust CFD methodology allows for design flexibility and adaptability ensuring optimal performance and enhanced efficiency resulting in comparative **24% reduction in footprint**.

UVlux™ Digital Dry Sensor

A certified digital UV sensor delivering reliable performance across a wide operating range, with easy integration and simplified servicing to reduce downtime and maintenance.

AFX



Advanced Nuvonic PureVue™ digital controller

The latest and most advanced 10-inch PureVue™ controller delivers clear, intuitive process visibility through a one-stop dashboard helping operators stay in control and keep the system operating at its optimum performance.

Self-diagnosing smart wiper

Intelligent wiper system operates automatically without interrupting treatment and performs self-diagnostics in the event of a fault.

Adaptive Temperature Technology

Stable UV output across a wide temperature range (~5–35 °C) delivers reliable disinfection, improved efficiency, longer lamp life and consistent long-term performance. Delivers up to **20% better efficiency** than conventional spot amalgam lamps.

Validation-ready design

Proven through decades of validated system design - engineered to meet USEPA UVDGM requirements for confidence in critical applications. Validated version to be released soon.

Easy to service design

Simplified service design featuring fewer lamps, fewer connections and plug-in components

Adaptive Temperature Technology Lamps

Stable UV. Longer Lamp Life. Higher Efficiency.

Adaptive Temperature Technology delivers consistently high UV performance across real-world process conditions, ensuring reliable disinfection at any temperature. By keeping the lamp operating at its optimum point, it eliminates the instability of traditional amalgam systems, reduces unplanned downtime, and protects lamp life while driving higher efficiency and dependable dimming performance.

When tested across a broad range of temperature conditions and dimming levels, Adaptive Temperature Technology delivers up to 20% better efficiency than conventional spot amalgam lamps.

Why AFX?

Optimised UV Performance in a Compact Design

In food and beverage processing, reliable disinfection is critical to reduce risk and protect uptime. PureLine AFX features a CFD-optimised chamber design that delivers consistent UV performance through Nuvonic's Adaptive Temperature Technology, even as temperatures and flow conditions change. Fully vertically integrated manufacturing and global sales support ensure the quality and long-term reliability of PureLine AFX.

An ideal balance of compact, hygienic design with fewer lamps and high-efficiency performance, delivering optimised disinfection with low energy consumption.

Up to 75% less cabinet wiring reduces failure points and simplifies maintenance

Maximised efficiency with optimised chamber design

Innovative Adaptive Temperature Technology

Compact panel design for easy servicing

Increased saving with Smartray™ lamps

Low cost of ownership and energy

Self diagnosing smart wiper



Quality You Can Trust. Support Wherever You Are.

100% vertically integrated design & manufacturing

All system components, from lamps and sensors to controllers and chambers, are designed and manufactured by Nuvonic, enabling full vertical integration of critical technologies and operations. This end-to-end control allows us to optimise both UV lamp manufacturing and complete system design for each specific application, delivering application-optimised UV solutions with consistent, high-performance results.

By owning the entire process, we guarantee global availability of spares and dependable service support, giving customers long-term confidence, continuity, and peace of mind.



With thousands of systems installed worldwide, Nuvonic has a proven track record of quality and reliability. Our global network of regional hubs and trusted local partners delivers responsive, expert support and service wherever our customers operate.

A Complete Solution

With PureLine AFX, you're not just buying a system, you're backed by Nuvonic's global strength and reliability.

PureLine
 **AFX**

Genuine Parts. Serviced Worldwide.



EcoVadis is a company-level sustainability rating assessing environmental, ethical, labour, and responsible sourcing practices. Nuvonic has been awarded an EcoVadis Silver Medal, placing us in the top 15% of companies assessed globally.



Contact Us

We'd love to hear from you.

+44 (0) 1753 515 300
emea@nuvonic.com

EMEA Office
780 Buckingham Ave
Slough
SL1 4LA
United Kingdom

+1 980 256 5700
americas@nuvonic.com

Americas Office
4215 Stuart Andrew
Blvd.
Suite E
Charlotte
NC 28217

+86 (0) 21 6167 9599
apac@nuvonic.cn

Nuvonic Shanghai Limited
Room 301, 3rd Floor, Building 41
No.99 Huajia Road
Songjiang District
Shanghai PRC

+49 (0) 2268 90 8300
germany@nuvonic.com

Nuvonic GmbH
Hungenbach 1D
D-51515
Kürten
Germany



Scan to discover how PureLine AFX
delivers optimised disinfection for
food and beverage applications

nuvonic.com