



**Process Water and
Wastewater Treatment**
for the Food and Beverage Industry

WATER TECHNOLOGIES

Industries Served

- > Food Processing
- > Beverage Production
- > Breweries
- > Wineries
- > Distilleries
- > Dairy / Cheese
- > Sweeteners
- > Snacks
- > Grain / Cereal Production
- > Vegetable Processing
- > Wet Corn & Oilseed Processing
- > Meat & Poultry Processing
- > Biofuel Production
- > Aquaculture

Capabilities

Ingredient (Production) Water

Water used in food production processes needs a safe and continuous supply. Veolia's technologies ensure that your ingredient water is produced reliably, cost effectively, and meets the highest quality standards that your operation demands.

Utility Water

Food and Beverage manufacturers rely upon their utility operations to provide reliable steam and cooling water to support their production needs. Veolia's equipment and chemical technologies cost effectively produce the type of water your utilities need to ensure steam quality, heat exchange efficiency and environmental compliance.

Wastewater

Veolia is experienced in helping clients reduce their financial exposure and comply with discharge requirements and stringent environmental regulations.

Anaerobic Digestion

Convert Waste & Wastewater to Energy

Anaerobic treatment technologies offer a dual benefit for food and beverage facilities. They simultaneously treat a wide range of waste and wastewater streams while creating energy-rich biogas as a by-product that can be used to produce "green" electricity or heat.

Water Recycling & Reuse

Food production is a water-intensive industry. Veolia understands this and is able to help clients meet water reduction goals and minimize their environmental impact by implementing technologies that convert wastewater effluent into water that can be reused elsewhere in the plant.

Nutrient Recovery

Veolia's sustainable approach to water can transform waste into valuable by-products, such as fertilizer, that can be reused or sold.



Understanding Water Challenges Facing Food & Beverage Companies

The demands made on Food & Beverage companies are numerous. Veolia Water Technologies understands these issues as they pertain to water and has experience in helping organizations achieve goals, such as:

- > Production Efficiency
- > OPEX Reduction
- > Product Quality
- > Speed to Market
- > Regulatory Compliance
- > Risk Mitigation / License to Operate
- > Corporate Sustainability Initiatives



A Creative and Trusted Solutions Provider

Veolia is trusted by leading Food & Beverage companies across the globe and has successfully executed more than 1,200 projects worldwide.

Veolia's experts deliver creative and effective water solutions that meet the needs of our clients. A customer-focused culture combined with a portfolio of more than 350 proprietary technologies makes Veolia a preferred partner for all water and wastewater related projects.



Expansive Technology Portfolio

Veolia's more than 350 patented technologies allows for comprehensive water solutions for food and beverage operations of all types and scales. From ingredient water to wastewater handling, our experienced global network of engineering professionals are consistently creating innovative solutions that increase efficiency and performance.

VEOLIA'S INNOVATIVE FOOD & BEVERAGE TECHNOLOGY AND PRODUCT OFFERING INCLUDE:



Biothane® Anaerobic Treatment Memthane® Anaerobic Membrane BioReactor (AnMBR)

Minimize waste streams, reduce biosolids and convert complex, high-strength effluents into sustainable energy



AnoxKaldnes™ MBBR

Compact Moving Bed Biofilm Reactor engineered to effectively remove BOD/COD and nitrogen, with a high tolerance to load variation and toxicity



Sulfothane™

A scalable and efficient sulfur removal technology that removes >99% H₂S and creates a fast return on investment by reducing equipment corrosion/maintenance costs



NEOSEP™ Immersed Membrane Bioreactor

Activated sludge treatment with immersed membrane filtration in a compact design



Actiflo® High-Rate Clarifier/Softener

Small-footprint technology in which water is flocculated with microsand and polymer to increase settling velocity for the removal of more than 99% of TSS



High Efficiency Reverse Osmosis

Modular flexible design to treat highly turbid water for process water and wastewater treatment



Hydrotech Discfilters

Ultra-compact water filtration technology that consumes minimal power and is low-maintenance



Auto-Jet™ Filtru-Matic™

Fine filtration (< 1 micron) technology that treat process stream with high temperature and high solid content



Hydrex™ Chemicals

Wide range of proprietary water treatment chemicals for use in all process, utility and wastewater applications

Comprehensive Service Offering

Veolia is experienced in turn-key project delivery that takes your project from conception to implementation. Our organization also offers an expansive line of in-plant and aftermarket services to support your water/wastewater equipment and operations.

Our Services Include:

- > Laboratory Service / Testing
- > Bench-Scale Tests
- > Pilot Tests
- > Studies & Evaluations
- > Design Engineering
- > System Integration
- > Construction & Project Management
- > Start-Up / Commissioning
- > Aftermarket Parts / Service
- > Full-Time On-Site System Operations
- > Remote Monitoring / Automation
- > Aquadem Service-Deionization Products

Mobile Water Solutions

Veolia's mobile fleet includes a wide range of technologies for temporary, emergency and long-term water treatment applications, including reverse osmosis (RO), clarification/softening, and more.



Veolia Standard Products Pre-Engineered for Fast Implementation

Veolia offers a comprehensive line of pre-engineered, skid-mounted products for food and beverage applications where a custom design is not required. These technologies include reverse osmosis (RO), filtration, ion exchange, and wastewater treatment.



Resourcing the world

Natural resources are becoming increasingly scarce while our needs are growing in an ever more densely populated and urbanized world facing climate change issues.

With 160 years of expertise in the areas of water, energy and waste, Veolia applies its capacity for innovation to pursuing human progress and wellbeing, and improving the performance of businesses and regions.

Veolia designs and implements solutions aimed at improving access to resources while at the same time protecting and renewing those same resources.



