

Bottled Beverages ■ Animal / Pet Food Processing ■ Wineries ■ Breweries ■ Agriculture ■ Fruit & Vegetable Processing ■ Dairy ■ Meat / Poultry Processing ■ Seafood Processing ■ Aquaculture

Dosing-Controlling-Disinfecting Food & Beverage Solutions

ProMinent®

A ProMinent **Solution** for your **Application**



Bottled Beverages

- During the bottling process, water is used for rinsing before filling, to flush out air during filling, for dilution when added to concentrates, as well as for cooling, labeling, packaging, cleaning and sanitizing.
- **Our solutions** include metering pumps to deliver sanitizing agents and disinfection systems for sanitization of equipment.



Animal / Pet Food Processing

- In animal (pet) food processing, water is used for mixing ingredients, baking, and for sanitizing cleaning equipment and production areas.
- **Our solutions** include metering pumps to precisely inject ingredients into food formulations, antimicrobial agents into chilling systems, and chemicals for cleaning systems, along with disinfection systems to sanitize and treat source water and wastewater.



Wineries

- In addition to using water for irrigation of grapes, water is crucial for cleaning and sanitization of equipment, hydration and dilution to adjust sugar and acidity levels, heating or cooling during fermentation, as well as steam for barrel maintenance.
- **Our solutions** include metering pumps to accurately dose additives, yeast nutrients and chemicals for water treatment, along with disinfection systems to support the sanitization of process equipment, barrels and packaging.



Breweries

- Generally, it takes between 1 and 1.5 gallons of water to produce 32 ounces of beer. The primary uses of water for brewing include mashing, sparging liquors, and high-gravity brewing, along with washing and sterilizing of vessels and pipework, container cleaning and sanitization.
- **Our solutions** include metering pumps to accurately dose ingredients, yeast nutrients and chemicals for water treatment, as well as disinfection systems to support the sanitization of process equipment, kegs and packaging.



Agriculture

- On average, farms account for 70% of annually consumed water, primarily for irrigation, pesticide and fertilizer applications, crop cooling, and frost control.
- **Our solutions** include metering pumps for precise injection of fertilizers and pesticides, disinfection systems for sanitizing water sources and recycling water, and control and monitoring systems to ensure quality standards are met.

Fruit & Vegetable Processing

- Processing fruits and vegetables involves preparing them for consumption in various forms, requiring water for washing, peeling, pitting, blanching, fluming, and conveying, as well as for removing undesirable materials post-processing.
- **Our solutions** include metering pumps to dispense cleaning agents, sanitizers, disinfectants, preservatives, and additives, along with disinfection systems to treat water sources, extend shelf life, and improve food safety.



Dairy

- A reliable, high-quality water supply is crucial for dairy farms. It's used for animal consumption, milk cooling, cleaning equipment, cow maintenance, crop irrigation, manure management, and barn cleaning.
- **Our solutions** include metering pumps to dose additives during pasteurization, chemicals for water treatment, and cleaning chemicals for CIP systems, along with disinfection systems to sanitize milking, pasteurization, and handling equipment.

Meat / Poultry Processing

- In poultry and beef processing, water is essential for chilling, scalding, washing, cleaning, carcass washing, process cleanup, and waste conveying.
- **Our solutions** include metering pumps to deliver cleaning agents, antimicrobial agents to cooling systems, and ingredients to enhance taste, as well as disinfection systems to sanitize process and handling equipment.



Seafood Processing

- For seafood processing, water is used in cleaning, cooking, freezing, equipment cleaning, and storage.
- **Our solutions** include metering pumps to accurately deliver cleaning agents, antimicrobial agents into cooling systems, and ingredients to enhance taste, along with disinfection systems to sanitize process and handling equipment.

Aquaculture

- In aquaculture, water is crucial for raising aquatic organisms for food, restoration, conservation, or sport. Key water quality parameters include temperature, dissolved oxygen, pH, alkalinity, hardness, ammonia, nitrates, carbon dioxide, chlorides, and salinity.
- **Our solutions** include metering pumps to dose medications and treat wastewater, disinfection systems to prevent pathogen spread, along with control and monitoring systems to ensure proper water quality.



Fluid Metering

Fluid metering pumps are vital in the Food & Beverage industry for precise liquid dispensing. They ensure accurate dosing of ingredients, flavorings, vitamins, preservatives, and additives for consistency and quality, acids or bases for pH adjustment, chemicals for sanitizing, cleaning, and wastewater treatment, as well as container filling with food and beverage products.



Diaphragm

Concept / beta / gamma / Sigma Series

Reliable fluid metering starts here. Our wide range includes both solenoid and motor-driven metering pumps.

Benefits include:

- Extremely precise metering of fluids
- Minimal maintenance due to simplicity
- Low flow, low pressure options for delicate ingredients

Capacities:

Up to 275 GPH (1,040 LPH) and pressures up to 363 psi (25 bar)



Hygienic Process

Sigma

Ideal for metering of ingredients or sensitive chemicals when contamination is not an option and food safety is of utmost importance.

Benefits include:

- Simple design for easy cleaning
- Stainless Steel liquid-end design for hygienic applications and cleaning-in-place (CIP) systems
- FDA certified, 3-A pending

Capacities:

Up to 275 GPH (1,040 LPH) and pressures up to 145 psi (10 bar)



Peristaltic

DULCOFLEX

ProMinent peristaltic pumps utilize a hose and roller / shoe design, which allows higher pressures and longer service life.

Benefits include:

- Able to meter highly viscous liquids or solids, such as molasses
- High flow, low pressure make it adaptable to a wide range of applications

Capacity Ranges from:

Up to 19,200 GPH (72,700 LPH) and pressures up to 232 psi (16 bar)



High Pressure

ORLITA / Evolution

Plays a critical role in ensuring product quality, safety and efficiency in various stages of production, including homogenization, carbonation, pasteurization, preservation and extraction.

Benefits include:

- Ingredient injection for extrusion
- Hermetically sealed dosing head
- Sanitary connections
- FDA compliant materials

Capacities:

Up to 2,200 GPH (8,325 LPH) and pressures up to 5,800 psi (400 bar)

Engineered Chemical Feed Packages

ProMinent offers complete pre-assembled "ready-for-use" chemical metering systems, along with custom designed systems to meet specific application or space needs – that are all built in-house. This means that the design, all components and testing is done by one supplier which ensures high quality, no interface issues and no on-site assembly.



Pre-Engineered Pump Skids

Simplex / Duplex

ProMinent has designed a variety of systems that suit common food and beverage applications. This cuts down greatly on costs and delivery times.

Custom Designs

Let our experts design a system tailored to meet your goals no matter the application, standards, space requirements or environment.



Analytical Packages

Complete modules are available for easy integration. They can be designed for measuring most any variable in water treatment applications, with capabilities for remote access.



Monitoring and Control

High quality water is essential in food and beverage production throughout its entire life cycle. Ensuring every drop of water meets stringent standards requires effective monitoring and controls. ProMinent offers a variety of systems and devices to address challenges in controlling water and wastewater quality.



diaLog X

A multi-parameter water treatment controller featuring a flexible platform that can be configured to meet a wide range of customer applications. This powerful controller is expandable to handle extensive monitoring and control requirements with a simple interface that can be viewed and controlled remotely.



diaLog DACb

A complete controller for water analysis in the Food & Beverage industry. Specially designed functionalities for the processing of interference variable and switchover of control parameters ensure reliable integration between the sensors and pumps for process optimization.



DULCONNEX

DULCONNEX is a web-based IIoT platform for digital fluid management. The web application provides easy access to all relevant plant, process and inventory level data on any connected device for monitoring and controlling connected components such as pumps, measurement sensors, liquid levels, etc.



BAMA Modular Bypass Sensor Housing

Accommodates ProMinent sensors in various configurations that offers:

- Low water flow requirements for savings when water is not returned back to the process
- Easy cleaning and maintenance
- Good particle mobility for water which contains solids
- Designs for temperatures up to 158°F (70°C) and pressures up to 101.5 psi (7 bar)

DULCOTEST Sensors

ProMinent manufactures its own sensors to ensure a high quality and availability. Our product family consists of application-based sensors for precision measuring and flexibility in connecting to various devices such as pumps, controllers or PLCs.



- Free Chlorine:0.01 – 200 ppm (higher upon request)
- Total Chlorine0.01 – 20 ppm
- Peracetic Acid:0.02 – 2,000 ppm
- Chlorine Dioxide:0.01 – 10 ppm
- Ozone:0.02 – 2 ppm
- Hydrogen Peroxide:0.2 – 2,000 ppm
- Fluoride:0.05 – 100 ppm
- Conductivity0.01 μS/cm - 20 – mS/cm
- Chlorite:0.02 – 2 ppm
- pH/ORP: 0 – 14 / -1,500 - +1,500 mV
- Dissolved Oxygen:0.1 – 20 ppm
- Others upon request



Liquid Level Radar Sensor

DULCOLEVEL

An easy-to-use radar sensor that provides continuous, accurate and reliable measurements of chemical, beverage or food product levels within tanks, containers or IBC totes. Can be mounted on top of non-metallic tanks, without an opening to maintain hygienic standards.





Disinfection Systems

Disinfection systems play a key role in ensuring proper food safety and hygiene. They are used for biofilm control and to eliminate harmful bacteria, microorganisms, pathogens, molds and other contaminants.



Chlorine Dioxide

Bello Zon

Our generation systems produce a chlorine-free chlorine dioxide solution that disinfects regardless of pH conditions. The chlorine dioxide solution remains effective in pipes or on food surfaces for hours and days, eliminating harmful bacteria that causes biofilms and extending shelf life of fresh goods. It does not react with ammonia or other organic compounds and will not form THM's



Ozone

OZONFILT

Ozone is the most powerful oxidizing agent that can be used in water treatment, thus ideal for removing hazardous substances, dyes, odors and flavor additives. This results in less environmentally harmful byproducts than with other comparable oxidants and disinfectants. Our systems have an ozone generating capacity of up to 0.93 lb/h (420 g/h).



Chlorine Generation (onsite)

CHLORINSITU

This technique use sodium chloride (ordinary salt) to produce a sodium hypochlorite solution. Electrolysis is an economical alternative to the use of sodium hypochlorite or other disinfectants, allowing you to generate chlorine onsite – in your own facility, avoiding handling and storing of potentially dangerous chemicals. Capacities of up to 100 lbs (45 kg) of chlorine per hour available.



Chlorine Generation (onsite)

DULCOLYSE

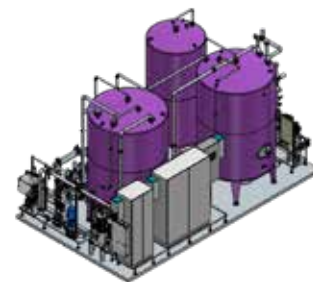
This technique uses sodium chloride to produce a hypochlorous acid solution. This technology delivers the lowest possible chlorate levels when compared to other chlorine disinfection systems, which makes it ideal for Food & Beverage applications to meet the most stringent International Food Standard guidelines such as those required for infant formulas. Capacities of up to 800 g/h of chlorine solution are available.



UV Thin Layer

DULCODES LP

This UV system is designed for sugar syrup disinfection and declares war on heat-resistant germs. In instances when standard heat pasteurization isn't up to the job, UV light provides a very quick and efficient form of disinfection without the need for heat or chemical additives. UV disinfection saves energy and operating costs and can even replace pasteurization. This unit can disinfect up to 9,510 GPH (36 m³/h) and eliminate up to 99.99% of heat resistant spores in the sugar syrup.



Retort Water Reuse System

Retorting heats sealed food and beverage containers to high temperatures to kill microorganisms, ensuring safety and extending shelf-life. The retort water system circulates hot water or steam for uniform heating and reuses cooled water, minimizing consumption and optimizing energy efficiency. This is vital for large-scale food production, including canned goods and ready-to-eat meals. ProMinent designs turn-key, energy-efficient systems with water recycling, chlorine-free disinfection, and hygienic design for both outdoor and indoor installations.



Wastewater Management Systems

Wastewater management systems are implemented to protect public health and the environment, recover valuable resources, ensure regulatory compliance, and support sustainable development, all while trying to reduce long-term costs associated with environmental damage and health care. Our solutions help to remove solids from liquids, adjust pH, monitor different factors or even dose chemicals to ensure that waste water can be properly treated before it moves to the next process phase.

Polymer Preparation Systems

Polymers aid in the removal of solids, particles and contaminants during the wastewater treatment process prior to discharge or reuse. Polymers are also used as coagulants and flocculants in the clarification and filtration processes. Our systems are turn-key, ready-to-use and designed for liquid or dry polymers.



ULTROMAT

ULFa / ULDa / ULPa / ULFb

Fully automatic systems that handles liquid and powdered polymers to batch flocculation aids into a ready-to-use polymer solution. Extraction rates up to 2,113 GPH (8,000 LPH).



PolyRex

A turn-key automatic feed system for batch-wise preparation and metering of polymer solutions from powdered or liquid chemicals.



ProMix S / M / L

A pre-engineered system with a unique three-zone design resulting in superior liquid polymer activation and lowered chemical consumption.



pH Neutralization Systems

ProMinent's pH Neutralization Systems efficiently adjust pH in wastewater, featuring a compact design, pre-engineered setup, and integral pH loop with dual control.



pH Neutralization

Our systems, are designed to handle flows up to 20 GPM, include a recirculation pump for mixing, and monitor pH levels with alarms for exceedance. pH neutralization involves adjusting wastewater pH to a neutral range, preventing environmental harm and meeting regulatory standards by mixing acidic or alkaline substances to achieve the desired balance.

Chemical Storage

The DULCODOS SAFE-IBC is a metering and emptying station designed for safe and efficient handling of liquid chemicals from Intermediate Bulk Containers (IBCs).



DULCODOS SAFE-IBC

The DULCODOS SAFE-IBC is a metering and emptying station designed for safe and efficient handling of liquid chemicals from Intermediate Bulk Containers (IBCs). It ensures maximum safety by using a secure installation, integrated metering stations for uninterrupted metering, and almost complete residual drainage of IBCs. The system includes advanced features like visual level indicators and customizable configurations to suit your specific needs and is ideal for applications in water treatment, and various industrial processes such as food and beverage production.

OUR ADVANTAGE

ProMinent integrates a full suite of capabilities to ensure your system operates at peak performance specific to your application. From in-house design and manufacturing that delivers high quality control to in-field support and training that keeps your system producing reliable results. You can count on ProMinent as your partner throughout your system's entire life cycle.

IN-HOUSE CAPABILITIES

Custom System Design and Engineering

Custom Sensor Panel Fabrication and Testing

Standard System Designs for Quick Delivery

Component and System Manufacturing

AFTERMARKET SUPPORT

Large Inventory of Parts and Components

Service Support: Phone, On-site and/or Start-Up

Maintenance, Repair and Troubleshooting of Equipment

Training: Certified Service Partner, Operational, Maintenance, General Product

PROVEN SOLUTIONS THAT MEET YOUR NEEDS

ProMinent Fluid Controls, offers the highest quality metering pumps, disinfection systems, polymer preparation systems, metering systems for solids, instrumentation, and custom designed systems. The Group is headquartered in Heidelberg, Germany with more than 2,800 employees throughout 50 sales and service locations and 11 production sites. With over 60 years of experience, our expertise and wide range of products positions us as your reliable solution partner for the treatment of water.

To learn how we can help solve your water treatment challenges, contact us at:

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