

Complete ozone disinfection solutions

Simple, proven, ozone technology from Pacific Ozone™

Ozone, the tri-atomic form of oxygen (O₃), is a very powerful oxidizer with twice the oxidizing potential of traditional disinfection agents. One of the most popular applications is the use of ozone as a microbiological disinfectant. Ozone works by oxidizing the cell's membrane and interfering with the metabolism of the cell, and killing it. A highly efficient disinfectant against yeasts, molds, bacteria, viruses and biofilms, ozone has been globally adopted in water treatment processes for decades. Suited for a wide variety of markets and applications due to its ability to disinfect microorganisms without adding any residual chemicals to process, ozone avoids the issue of creating disinfection byproducts associated with other disinfection methods, leaving no harmful chemical residuals.

The Pacific Ozone Solution

Xylem's Pacific Ozone systems use an innovative floating plate technology to produce ozone which allow us to be very compact without compromising the efficiency of our ozone generators. In addition, our generators are air-cooled which results in less maintenance, lower power consumption, and ease of installation.

Pacific Ozone systems provide safe and sustainable solutions to disinfection processes, yielding measurable results that can give customers operational peace of mind. With the Pacific Ozone packaged generator systems, all you need is air, water, and electricity to increase the efficiency and safety of your process.



Vertical Markets & Applications



AGRICULTURE, PRODUCE & FOOD PROCESSING

- Fresh produce/fruit washing
- Product preservation
- Packaging sanitization
- Equipment and surface sanitization
- High-purity process water
- Cooling tower water
- Seafood processing



AQUACULTURE

- Incoming water treatment
- Wastewater management/ disinfection
- System sanitization
- Product processing



BEVERAGE

- Product water preparation
- Clean-in-place
- Tank, equipment sanitization
- Bottle and cap rinsing
- Bottled water preservation



INDUSTRIAL

- High-purity process water
- Cooling tower water
- Equipment and surface sanitization
- Clean-in-place
- Process water



WINE

- Barrel washing
- Equipment and surface sanitization
- Tank sanitization
- Piping clean-in-place

The Elements of Ozone

Our complete, integrated, and commercial ozone systems are comprised of four basic components:

- O₂ Oxygen/Feed Gas Preparation
- O₃ Ozone Generation
- MT Mass Transfer
- CN Control/Monitoring

Feed Gas Preparation

Processes requiring low concentrations of ozone may be serviced with clean, dry air (21% O₂). Typically, ozone is generated from concentrated oxygen (> 90% O₂) to yield higher concentrations of ozone.

Ozone Generation

Ozone generators produce high concentrations and volumes of ozone by corona discharge utilizing Floating Plate Technology reaction chambers. Oxygen gas flowing through the electrical corona in the reaction cell is converted to ozone (4–8% conversion is typical, depending on reaction conditions).

Mass Transfer

In ozone mass transfer, ozone gas is typically dissolved into a stream of water through a venturi injector and transferred to a contacting tank. Xylem's pre-configured, integrated Enhanced Mass Transfer system maximizes the transfer rates for each application. Excess ozone gas that does not dissolve into the water stream is vented from the top of the tank through a destruct device that safely converts the excess ozone back to oxygen (O₂).

Control/Monitoring

Controls are typically designed into ozone systems to monitor and optimize ozone production and demand. Systems can be designed to automatically compensate for changes in demand and operational conditions to maintain a preset level of residual ozone.

Systems & Product Families

Xylem is one of the world's leading suppliers of air-cooled, corona discharge ozone generators, complete integrated ozone systems, and ozone process controls. Our standard product offering includes a broad range of ozone generators that generate from 0.5 to 60 pounds of ozone per day. We offer complete packaged generating systems designed to address the continually expanding range of industrial and municipal ozone system requirements.

PRODUCT LINE	ELEMENTS OF OZONE				OZONE PRODUCTION RANGE
	O ₂	O ₃	MT	CN	g/hr
G Series		•			18, 36, 54, 70
MG Series		•			140, 280, 560, 1120
GS Series	•	•			18, 36, 54, 70
MGS Series	•	•		A03	140
PGS Series	•	•	•	A03/D03	18, 36, 54, 70
PGS Peak Series	•	•	•	A03/D03/ ORP	Full Range
PC Series	•	•	•	•	36

Xylem Ozone Generation systems undergo factory acceptance testing to ensure they are capable of producing the desired ozone concentration, based on operational parameters outline in the Operating Manual. System performance of microorganism inactivation depends on the CT value, pH, and temperature of water. Performance limitations depend on feed conditions, overall installed system design, and operation and maintenance processes; please refer to Operations Manuals. For more information: disinfection@xylem.com



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Disinfection performance will vary based on product, system design, facility operating conditions, water quality, and maintenance protocols. Refer to product, system, installation and validation documentation for details.

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