

Ozone Systems

LIQUOZON® Dissolved Ozone Delivery Systems — LIQUOZON® ozonated water delivery systems feature field-proven SEMOZON® ozone generation technology for unsurpassed dissolving efficiency of ozone gas in water, state-of-the-art controls (including closed-loop control of dissolved ozone concentration) and an ozone destruct unit for safe re-conversion of residual ozone gas to oxygen. LIQUOZON dissolved ozone delivery systems are enclosed in vented cabinets and are SEMI S2 and CE compliant. The LIQUOZON HeliO₃ is especially designed for solar applications such as cleaning, surface conditioning and oxide growth. This system is a powerful source for wet processing with ozone and/or chemical mixtures such as acids with ozone. The LIQUOZON Stream is also designed for use in wet wafer processing especially in multi-chamber single wafer tools with applications requiring up to 140 lpm flow and ozone concentrations of 115 - 25 ppm.



SEMOZON® Ozone Gas Generators — SEMOZON ozone gas generators and subsystems are the industry standard for compact, high concentration, ultra-clean ozone gas generation. Applications include Atomic Layer Deposition (ALD), Chemical Vapor Deposition (CVD), cleaning and water treatment. The novel architecture and patented cell design of the SEMOZON AX8415 generator converts oxygen to >400 g/Nm³ of high concentration ozone for leading-edge applications in the semiconductor, flat panel display, and photovoltaic industries.

Ozone Gas Delivery Systems — Ozone gas delivery systems feature field-proven, high concentration, ultra-clean ozone generation technology from MKS, along with an integrated ozone concentration monitor, flow control, and power distribution. Additional features on some models include safety monitors, status indicator, and ozone destruct. The compact O₃MEGA® integrated ozone solution offers flow control for O₂ and dopant gas species and an electronic pressure controller. Designed for maximum flexibility, O₃MEGA subsystems are the smallest, most complete ozone delivery systems available.

The SEMOZON AX8580, a fully integrated modular ozone system, can be equipped with up to (4) AX8415 generators and configured as a multi-channel system to deliver ozone for up to 4 channels, supporting multiple chambers or multiple tools. Flow rates of up to 50 slm and concentrations greater than 400 g/Nm³ are achievable at peak system configuration. Also offered is an optional in-rack chiller for ultra-high concentrations and extended generator lifetime.



Ozone Sanitization — Ozone is the strongest commercially available oxidizing agent for use in water treatment today. Ozone sanitization reduces operating cost, improves uptime and does not require rinsing for chemical residue removal. Ozone is a green chemical that decays to oxygen and in addition to destroying living micro-organisms, reduces TOC and endotoxins. The LIQUOZON Ultra system is a UL and CE Mark certified automated ozone generation and injection system used for the sanitization of process water systems, storage tanks, and distribution lines. This integrated system provides a clean, safe, and efficient alternative to chemical water treatment systems, enabling you to minimize your operating costs and maximize uptime. The E03 ozone generators and systems provide 0.5-3 pounds per day (ppd) of ozone for sanitization needs. Designed specifically for challenging environments such as food and beverage and biopharmaceutical industries, this cost-effective, high-quality ozone generator has been successfully used around the world for nearly 10 years.



Ozone Gas Destruct (OVS) — Safety measures are of paramount importance to ensure the protection of personnel and equipment from unintended ozone exposure, especially the destruction of excess ozone gas. The OVS catalytic ozone gas destruct unit safely converts high levels of ozone into oxygen, reducing the ozone level down to detection limit and well below safety thresholds.



Static Mixer — The static mixer is designed to dissolve gases efficiently in fluids. Both gas and fluid are injected into the static mixer under pressure. A series of baffles converts the kinetic energy into turbulence, which results in improved mixing and solution. The fluids can be ultra pure water, sulphuric acid, or in the PFA version, water containing HF. Common applications include the solution of ozone gas in fluids for photoresist strip or for cleaning steps in semiconductor wet wafer processing.

