

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 SEMOZON AX8407 is a high concentration, ultra-clean ozone generator with design enhancements that extend the capability of patented MKS cell technology and production-proven design providing the highest performance for its size. The AX8407C is a compact ozone generator available in 4 output configurations for process flexibility and the lowest cost by matching performance to process requirements.

Ozone Gas Delivery Systems — Ozone gas delivery systems incorporate MKS' field proven, high concentration, ultra-clean ozone generation technology as well as integrated ozone concentration monitor, flow control and power distribution. Safety monitors, status indicator and ozone destruct are available on some models. The O3MEGA® is a compact, integrated ozone solution that incorporates flow control for both O₂ and dopant gas species, as well as an electronic pressure controller. Designed for maximum flexibility, O₃MEGA subsystems are the smallest, most complete ozone delivery systems available. Also available is the SEMOZON AX8575, a fully integrated, high output ozone gas delivery system that can be configured as a multi-channel system delivering ozone for up to 4 channels supporting multiple chambers or multiple tools. It has an optional in-rack chiller for ultra-high concentrations.



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) — Ozone is a highly toxic gas. Wherever ozone is used, safety measures have to be taken in order to protect personnel and equipment from unintended ozone exposure. One such important safety measure is the destruction of excess ozone gas that is not used in a process. The OVS catalytic ozone gas destruct unit is designed to safely convert high levels of ozone into oxygen, reducing the ozone level down to detection limit, 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.

