

**Your Vision. Our Engineering.
Endless Possibilities.**





At ROCH Mechatronics, we understand the growing need for effective sterilization and contamination control in healthcare, pharmaceutical, laboratory, and industrial environments. Modern facilities require advanced solutions that not only eliminate harmful microorganisms but also ensure safety, reliability, and operational efficiency. Guided by our vision of “Developing Sustainable Future Technologies,” we design and manufacture innovative sterilization equipment that supports critical hygiene and infection-control requirements across diverse industries.

Our Ozone Sterilization Cabinet is engineered to provide a powerful, chemical-free sterilization solution through the combined action of ozone gas and UV-C germicidal technology. Designed for superior microbial reduction, the system effectively disinfects instruments, medical devices, laboratory equipment, PPE, glassware, and other critical materials while minimizing the use of conventional chemical disinfectants. The result is a safer, environmentally friendly, and highly efficient sterilization process.

With decades of engineering expertise, ROCH Mechatronics has established itself as a trusted manufacturer and exporter of advanced laboratory and industrial equipment that meets international standards of quality, performance, and reliability. Our sterilization systems are built using premium-grade materials, intelligent control systems, and robust safety features to deliver consistent and dependable results in demanding applications.

Driven by a team of experienced engineers, scientists, and technology specialists who believe in “Working Beyond Horizon,” we continuously develop innovative solutions that enhance workplace safety, improve operational efficiency, and support contamination-free environments. By combining technical excellence with customer-focused design, we deliver products that meet the evolving needs of modern laboratories and industries.

Today, ROCH Mechatronics' Ozone Sterilization Cabinets are widely utilized in hospitals, pharmaceutical companies, biotechnology laboratories, research institutions, diagnostic centers, food processing facilities, and industrial manufacturing units. In addition to serving clients across India, we proudly supply our solutions to customers in the USA, Europe, East Asia, Gulf countries, and Africa, providing trusted sterilization technology to professionals worldwide.

At **ROCH Mechatronics**, quality is not just a certification — it is our commitment to delivering reliable, safe, and high-performance laboratory solutions that industries and research organizations can trust with confidence. Our manufacturing practices, engineering standards, and customer-focused services are backed by globally recognized certifications and industry acknowledgements that reflect our dedication to excellence.

We continuously ensure that every product meets stringent quality, safety, and operational standards through internationally accepted compliance systems, including:

ISO 9001:2015 Certification for maintaining a robust Quality Management System focused on consistency, efficiency, and customer satisfaction.

CE Certification demonstrating conformity with European safety, health, and environmental protection standards.

GMP Compliance ensuring pharmaceutical-grade manufacturing practices for dependable and contamination-free equipment production.

ICH Q1A (R2) Stability Guidelines Compliance validating our expertise in manufacturing precision stability chambers for pharmaceutical and research applications.

MSME Registration recognizing ROCH Mechatronics as an established and trusted manufacturing enterprise.

Our dedication towards innovation, dependable engineering, and customer assurance has also earned us recognition across the scientific and industrial sectors. These achievements reflect the trust our clients place in our products and services worldwide.

Awards & Milestones

National Award for Innovation in Laboratory Instruments

Recognized as a Top Exporter of Scientific Chambers by the Chamber of Commerce

Best Emerging Brand for Research Lab Equipment – 2024

Through continuous innovation, strict quality assurance, and advanced engineering practices, ROCH Mechatronics remains committed to providing sustainable and future-ready laboratory technologies that deliver precision, reliability, and long-term performance.

Ozone Sterilizer



Make: Roch Mechatronics Inc
Model No.: RMI-OZ-25



The Ozone Sterilization Cabinet from Roch Mechatronics is an advanced disinfection solution designed to provide safe, efficient, and chemical-free sterilization of laboratory instruments, medical devices, glassware, personal protective equipment (PPE), and other critical items. Utilizing the powerful oxidizing properties of ozone in combination with UV-C germicidal technology, the cabinet effectively eliminates bacteria, viruses, fungi, and other harmful microorganisms, ensuring a high level of hygiene and contamination control.



Constructed with high-grade stainless steel, the cabinet offers excellent durability, corrosion resistance, and easy cleaning. Its microprocessor-based control system enables precise operation through programmable sterilization cycles, while safety features such as door interlocks, automatic shut-off, and visual/audio alarms ensure reliable and secure performance.

Suitable for hospitals, pharmaceutical industries, biotechnology laboratories, research institutes, food processing facilities, and healthcare environments, the Roch Ozone Sterilization Cabinet delivers consistent sterilization results while reducing the need for chemical disinfectants. The system is available in multiple capacities and can be customized to meet specific user requirements, making it an ideal solution for modern sterilization and infection-control applications.

- Advanced Ozone Sterilization Technology for effective microbial elimination.
- Integrated UV-C Germicidal Lamps for enhanced disinfection performance.
- Eliminates Bacteria, Viruses, Fungi, and Other Harmful Microorganisms.
- Microprocessor-Based Digital Controller for precise operation.
- User-Friendly LCD/Digital Display with programmable settings.
- Fully Automatic Sterilization Cycles for consistent results.
- Stainless Steel (SS 304) Interior and Exterior Construction for durability and hygiene.
- Safety Door Interlock System prevents operation when the door is open.
- Audio-Visual Alarm System for cycle completion and fault indication.
- Automatic Shut-Off Function for enhanced operational safety.
- LED Status Indicators for real-time monitoring.
- Chemical-Free Sterilization Process with no harmful residues.
- Uniform Ozone Distribution for effective sterilization throughout the chamber.
- Low Maintenance and Energy-Efficient Design.
- Available in Multiple Capacities to suit various application requirements.
- Customizable Chamber Configuration and Accessories.
- Suitable for Medical, Pharmaceutical, Laboratory, Research, and Industrial Applications.
- Robust Floor-Standing Design with long service life.
- Reliable and Environment-Friendly Sterilization Solution.

Healthcare & Hospitals

- Sterilization of surgical instruments
- Disinfection of medical devices and equipment
- Sterilization of PPE kits, masks, and face shields
- Storage and sterilization of healthcare accessories

Pharmaceutical Industry

- Sterilization of laboratory tools and glassware
- Disinfection of packaging materials
- Contamination control in production and QC laboratories
- Sterile storage of critical components

Biotechnology & Research Laboratories

- Sterilization of research instruments
- Disinfection of sample containers and accessories
- Prevention of microbial contamination in laboratory environments
- Preparation of sterile equipment for experimental procedures

Diagnostic & Pathology Laboratories

- Sterilization of laboratory consumables
- Disinfection of testing accessories and equipment
- Safe handling of biological samples and instruments

Food & Beverage Industry

- Sterilization of food-contact utensils and tools
- Disinfection of packaging materials
- Microbial control in food processing environments
- Enhancement of product hygiene and safety

Educational & Research Institutions

- Sterilization of laboratory apparatus
- Safe storage of teaching and research equipment
- Contamination control in academic laboratories

Electronics & Precision Manufacturing

- Disinfection of sensitive components and tools
- Sterile storage of precision instruments
- Cleanroom support applications

Cosmetics & Personal Care Industry

- Sterilization of manufacturing tools and containers
- Disinfection of packaging materials
- Hygienic processing of cosmetic products

Veterinary & Animal Healthcare Facilities

- Sterilization of veterinary instruments
- Disinfection of animal care equipment
- Infection control in veterinary clinics and laboratories

General Industrial Applications

- Sterilization of reusable tools and accessories
- Odor removal and air purification
- Microbial contamination control in controlled environments
- Safe storage of sterilized materials and equipment

The Ozone Sterilization Cabinet operates on the combined action of ozone gas (O₃) and UV-C germicidal radiation to achieve high-level disinfection and sterilization of instruments, equipment, and other materials placed inside the chamber.

During operation, the ozone generator produces ozone from atmospheric oxygen using a corona discharge system. The generated ozone is uniformly circulated throughout the sterilization chamber, allowing it to penetrate difficult-to-reach surfaces, crevices, and enclosed spaces. Ozone is a powerful oxidizing agent that destroys microorganisms by breaking down their cell walls, disrupting cellular metabolism, and damaging genetic material, effectively eliminating bacteria, viruses, fungi, and spores.

Simultaneously, UV-C lamps emit germicidal ultraviolet radiation at a wavelength of approximately 253.7 nm, which damages the DNA and RNA of microorganisms, preventing their growth and reproduction. The combined effect of ozone and UV-C radiation enhances sterilization efficiency and ensures comprehensive microbial reduction.

A microprocessor-based controller regulates the sterilization cycle, exposure time, and safety functions. Once the programmed cycle is completed, the system automatically stops operation and activates visual and audible alerts. Any residual ozone naturally decomposes back into oxygen, leaving no chemical residue on sterilized items.

This dual-action sterilization process provides a safe, effective, and environmentally friendly method for achieving contamination control in healthcare, pharmaceutical, laboratory, and industrial applications.

The Ozone Sterilization Cabinet is designed with a robust and hygienic construction to ensure reliable sterilization performance, operational safety, and long service life. The cabinet consists of the following major components:

- 1. Cabinet Body:** The outer body is fabricated from high-quality powder-coated mild steel (MS) or stainless steel, providing structural strength, corrosion resistance, and durability. The cabinet is designed as a floor-standing unit with a compact footprint for convenient installation.
- 2. Sterilization Chamber:** The inner chamber is constructed from SS 304 stainless steel with smooth, polished surfaces for easy cleaning and contamination-free operation. The chamber is designed to accommodate instruments, glassware, PPE, and other materials requiring sterilization.
- 3. Ozone Generation System:** An advanced corona discharge ozone generator is integrated within the cabinet to produce ozone from atmospheric oxygen. The generated ozone is evenly distributed throughout the chamber to ensure effective sterilization of all exposed surfaces.
- 4. UV-C Germicidal Lamp Assembly:** The cabinet is equipped with high-efficiency UV-C lamps strategically positioned inside the chamber. These lamps emit ultraviolet radiation at approximately 253.7 nm, enhancing microbial destruction and improving sterilization effectiveness.
- 5. Air Circulation System:** A circulation fan or airflow distribution system ensures uniform ozone and UV exposure throughout the chamber, eliminating dead zones and providing consistent sterilization performance.
- 6. Door Assembly:** The cabinet door is fitted with a durable sealing gasket to minimize ozone leakage during operation. A transparent inspection window may be provided for process observation, depending on the model.
- 7. Safety Interlock System:** An electronic door interlock mechanism prevents operation when the door is open and automatically interrupts the sterilization cycle if the door is opened during operation.



8. Control Panel: A microprocessor-based control panel with a digital display allows users to set sterilization time, monitor operating parameters, and control system functions. The panel includes status indicators, alarms, and user-friendly controls.

9. Electrical System: The electrical section includes the power supply unit, protective fuses, relays, wiring, and safety circuits designed for reliable and safe operation under standard laboratory and industrial conditions.

10. Alarm and Indication System: Visual LED indicators and audible alarms provide information regarding power status, sterilization progress, cycle completion, and fault conditions.



11. Shelving Arrangement: The chamber may be fitted with removable stainless-steel shelves or trays, allowing efficient placement of instruments and materials while maximizing chamber utilization.

12. Optional Accessories: The cabinet can be equipped with optional features such as HEPA filtration, touch-screen HMI, data logging system, castor wheels, password protection, and validation documentation (IQ/OQ/PQ)

Sr. No.	Parameter	Specification
1	Equipment Type	Ozone-Based Sterilization Cabinet
2	Cabinet Construction	SS 304 Stainless Steel Interior & Exterior
3	Chamber Type	Single Sterilization Chamber
4	Chamber Capacity	Available from 200 to 1000 Litres
5	Chamber Dimensions	Customized as per requirement
6	Sterilization Method	Ozone & UV-C Disinfection
7	Ozone Generation System	Corona Discharge / Advanced Ozone Generator
8	UV Lamp Type	UV-C Germicidal Lamp
9	UV Wavelength	253.7 nm
10	UV Lamp Power	30–40 W per Lamp
11	Number of UV Lamps	As per Chamber Size
12	UV Lamp Life	Up to 9,000 Hours
13	UV Transmission Efficiency	≥ 75%
14	Digital Controller	Microprocessor-Based Controller
15	Display	LCD / Digital Display
16	Timer Function	Programmable Timer
17	Operation Mode	Fully Automatic
18	Sterilization Status Indication	LED Indicators
19	Cycle Completion Alert	Audio Buzzer with Visual Indication

20	Safety Door Interlock	Provided
21	Auto Shut-Off Function	Provided
22	Door Open Protection	System Does Not Operate When Door Is Open
23	Power Status Indicator	LED Indicator
24	Fault Indication	LED / Alarm Indication
25	Fuse Protection	Provided
26	Power Consumption	Approx. 150–300 W (Depending on Capacity)
27	Power Supply	220–240 VAC, Single Phase
28	Frequency	50 Hz
29	Operating Temperature	0°C to 40°C
30	Operating Humidity	≤ 50% RH
31	Sterilization Efficiency	Effective Against Bacteria, Viruses, Fungi & Spores
32	Safety Features	Door Interlock, Overload Protection, Alarm System
33	Compliance	Designed as per Relevant Laboratory & Healthcare Standards
34	Installation Type	Floor Standing
35	Customization	Available as per User Requirement