

MedaLux-OZON

OZONE HAS BEEN RECOGNIZED BY THE MINISTRY OF HEALTH (PROTOCOL NO. 24482 OF 31 JULY 1996) THE NATURAL PRESIDIUM FOR THE STERILIZATION OF ENVIRONMENTS CONTAMINATED BY BACTERIA, VIRUSES, SPORES ETC. AND INFESTED BY MITES, INSECTS, ETC.



Ministero della Salute



MADE IN ITALY

ACTIVE OXYGEN GENERATOR AND OZONIZER

(DISINFECTION AND SANITATION OF ENVIRONMENTS)



MedaLux - OZON

WHAT IS OZONE?

Ozone (symbol O_3) is a gas with a characteristic odor that forms in the upper layers of the atmosphere, near electric discharges, sparks and lightning. Ozone is an essential gas for life on Earth, it allows the absorption of ultraviolet light emanating from the Sun, in fact, the ozone layer present in the stratosphere protects from the harmful action of ultraviolet rays UV-B.

The gas, not being stable over the long term, therefore is not produced in cylinders, can be prepared at the moment through Medalux-OZON, which through small controlled electric discharges converts the oxygen of the air into ozone.

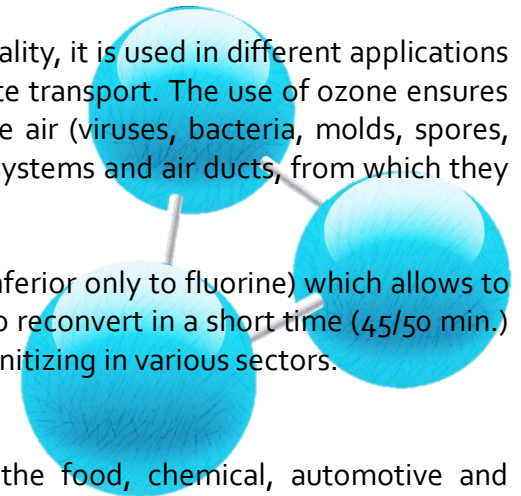
Among the many merits of ozone there is also that of not being dangerous to humans and pets if exposed for short periods because within a few minutes of production it decomposes completely retransforming into oxygen.

Ozone can be used as a safe and effective agent to improve air quality, it is used in different applications such as industrial processes, agro-industrial, civil, public and private transport. The use of ozone ensures the complete elimination of most of the pollutants present in the air (viruses, bacteria, molds, spores, fungi, etc.) that are very frequently developed in air conditioning systems and air ducts, from which they are conveyed in work or home environments.

The high oxidizing power of ozone (among natural oxidants and inferior only to fluorine) which allows to neutralize the most resistant pathogens very fast, its peculiarity to reconvert in a short time (45/50 min.) in oxygen without residue, make ozone the ideal disinfectant for sanitizing in various sectors.

Among the most significant applications of ozone treatments are:

- ✓ Disinfection and odour abatement in the process areas of the food, chemical, automotive and pharmaceutical industries.
- ✓ Disinfection of areas subject to potential microbiological risk (hospitals, changing rooms, vehicles, etc.)
- ✓ Air disinfection in air conditioning systems (prevention of SARS, Legionella, H5N1, etc.)
- ✓ Bacteriostatic treatment in storage environments for perishable goods (cold storage, etc.)
- ✓ Sanitation and odor reduction in hotel rooms, cars, campers, trains, buses, etc.
- ✓ Disinfestation by small animals such as rodents, ants, cockroaches, etc.



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PROTOCOLS ISSUED IN ITALY:

University of Naples " Federico II"

in vitro evidence of the inactivating power of nascent oxygen towards pathogenic *Enterobacteria* and absence of genetic mutations

University of Udine - Department of Food Sciences prot. 219/94

decontamination tests on flat surfaces of equipment used for processing salmonella – listeria meat

University of Parma - Institute of Microbiology

testing of sterilizing capacity on bacterial colonies and .coli S. aureus-ps.aeruginosa-str duranS

Ministry of Health Higher Institute of Health - Department of Food and Veterinary Nutrition

protocols deposited certifications, protocol 24482 31/07/96



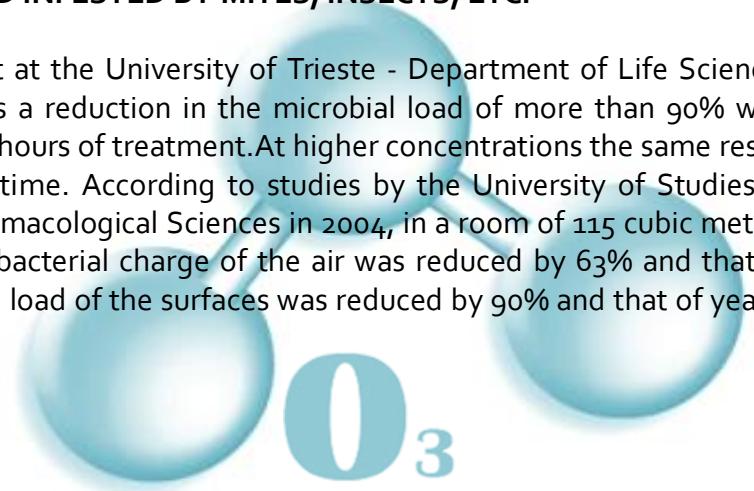
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SCIENTIFIC VALIDATION OF OZONE USE

The FDA (Food & Drugs Administration), the USDA (U. S. Department of Agriculture) and the EPA (Environmental Protection Agency) have approved Ozone as an antimicrobial agent, "GRAS", the USDA and the National Organic Program have also approved as active principle for the sanitization of surfaces (plastic and Stainless steel) in direct contact with food without need for rinsing and no residue chemical.

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The data obtained by a research carried out at the University of Trieste - Department of Life Sciences (project D4 Rhizome year 2007-2008) shows a reduction in the microbial load of more than 90% with concentrations less than 2 ppm for at least 6 hours of treatment. At higher concentrations the same result was obtained by decreasing the treatment time. According to studies by the University of Studies of Pavia, Department of Physiological and Pharmacological Sciences in 2004, in a room of 115 cubic meters treated with ozonation for 20 minutes, the bacterial charge of the air was reduced by 63% and that of yeasts and moulds 46.5%, while the bacterial load of the surfaces was reduced by 90% and that of yeasts and molds, 99%.



MedaLux-OZON

WHAT IS MedaLux-OZON?

MedaLux-OZON compliance



Italy

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Europe

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MedaLux-OZON is an ozone generator for sanitizing and disinfection of indoor environments and air conditioners, cabinets, mattresses and armchairs, helmets, shoes, bags and accessories.

Medalux-OZON is a device designed and manufactured in Italy with CE marking for the disinfection and sanification of environments through Ozone. Innovative technology to sanitize any space, even those hard to reach, in absolute comfort and in a short time. In addition, it ensures hygienic and sanitary conditions in accordance with EEC regulations.

THE BENEFITS OF MedaLux-OZON:

- Treatment in compliance with the H. A. C. C. P. hygiene rules and the protection and safety of workers (D. Lgs. 81/2008 E s.M.i.);
- Compliant with safety protocol - Covid/19, for daily cleaning and periodic sanitization;
- Small size and fast treatment;
- Drastically reduces the use of chemicals;
- Does not damage materials and does not stain fabrics;
- Ensures complete inactivation of all microorganisms;
- Ensures the elimination of toxic, harmful, organic and inorganic residues in the air and on surfaces;
- Eliminates all persistent odors.

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OZONE PRODUCTION PROCESS

Ozone is produced in significant quantities by means of active oxygen generator MedaLux-OZON - the electronic equipment that allows the creation of gas through controlled electric discharges. The ozonizer MedaLux-OZON takes oxygen, composed of two oxygen atoms O₂, and joins it with a third oxygen atom, forming the ozone molecule (O₃). Just ten minutes after the MedaLux-OZON generator is turned off, all the ozone generated, begins to convert to pure oxygen.

There is no residue to be disposed of, the treatment can be piloted properly whenever you want. Ozone is a gas and penetrates everywhere, for this reason, if produced in adequate quantities, it can be defined as "global coverage" (contrary to the technologies on the market today, ozone manages to ensure environmental saturation).

The use of ozone is proposed as a substitute for the use of infectious (toxic) chemicals, such as chlorine or quicklime treatments which can be toxic, caustic and highly corrosive.

APPLICATION AREAS

MedaLux-OZON is an essential aid for the disinfection and sanitization of environments, some areas of use are:

<p>Public sector: schools, cinemas, theaters, shopping centers, offices, meeting rooms, libraries, etc.</p>	<p>In environments with high density of people, MedaLux-OZON is able to purify the air and deodorize it, creating a healthy environment that makes the stay more pleasant and improves performance and mental concentration.</p>
<p>Health sector: hospitals, medical – dental – veterinary offices, waiting rooms, nursing homes, chemical and pharmaceutical industry, etc.</p>	<p>In these places it is important to keep the environments always aseptic. MedaLux-OZON thanks to oxygen ions, oxidizes germs and bacteria with a reduction efficiency of up to 99%, also on surfaces and working tools.</p>
<p>Food sector: cold stores, cold stalls, display cases, refrigerating displays, refrigerating transport, Food Processing Industries and laboratories meat-fish-fruit, etc.</p>	<p>MedaLux-OZON is of essential help to keep foods fresh longer and avoid oxidation of meat-fish-vegetables. Breaking down of bacteria and germs not only improves food retention, but also improves the image of buffets and showcases. It guarantees hygiene and sanitization along the entire food supply chain.</p>
<p>Catering and hotel sector: restaurants, hotels, bars, pubs, Agritourisms, wine bars, discos, shops</p>	<p>In places of preparation of food it is necessary to keep the environment as sterile and hygienic as possible, eliminating mold – mites – bacteria. MedaLux-OZON is the ideal solution for these environments, and eliminates the bad smell of air not only in the kitchen but also in meeting rooms, lobbies and hotel rooms.</p>
<p>Private sector: housing, smoking rooms, private clubs, gyms, etc.</p>	<p>Clean air increases the depth of breath and psychophysical well - being, bringing benefits to all ages. In homes and private environments MedaLux-OZON's active oxygen comes everywhere, purifying the air from dust, traces of detergents, bacteria, mold and mites.</p>
<p>Settore animali: Abitazioni privati, Pet-shop, etc.</p>	<p>MedaLux-OZON è di essenziale aiuto per mantenere il benessere psico-fisico. La soluzione ideale per una insostituibile barriera al diffondersi di pericolose allergie, purificando l'aria da polvere, batteri, muffe e acari.</p>

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OZONE PROPERTIES

MICROBIAL PROPERTIES OF OZONE

Due to its high oxidizing potential, ozone oxidizes the cellular components of the bacterial cell wall by penetrating into the cell. Once entered, it oxidizes all essential components (enzymes, proteins, DNA, RNA). During such a process the membrane is damaged and the cell dies. (see Table A).

VIRUCIDAL PROPERTIES OF OZONE

The virucidal efficacy of ozone is manifested in the presence of organic substances (Table B, C, D).

SPORICIDAL, FUNGICIDAL AND PROTOZOICIDAL PROPERTIES OF OZONE

TABLE A: OZONE INACTIVATION OF 99.9% OF BACTERIA AT 20° - 24°C *

GERM	MINUTES	OZONE (MG/L)
Escherichia Coli	0,16' - 1,67'	0,065 - 0,51
Legionella Pneumophila	8'	0,32 - 0,47
Salmonella Typhimurium	1,67'	0,23 - 0,26
Mycobacterium Fortuitum	1,67'	0,23 - 0,26

TABLE B: VIRUS INACTIVATION AT 20° - 24 °C *

HYDROPHILIC VIRUSES	REDUCTION (%)	MINUTES	OZONE (MG/L)
Poliovirus type 1	99,7	1,67'	0,23 - 0,26
Poliovirus type 1	95	0,50' - 0,75'	0,32 - 0,51
Coxsackie Ag	98	0,16'	0,035 - 0,14

TABLE C: VARIABLE OZONE VIRUS INACTIVATION AT 20°C *

HYDROPHILIC VIRUSES	REDUCTION (%)	MINUTES	OZONE (MG/L)
Poliovirus type 1	75-99	10'	0,2
Enteric viruses	98	98'	4,1

TABLE D: VARIABLE OZONE VIRUS INACTIVATION AT 20°C *

LIPOPHILIC VIRUS	REDUCTION (%)	MINUTES	OZONE (MG/L)
Human Rotavirus	90	10'	0,31

* The data described were obtained from analyses carried out by different laboratories

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MODEL MDLX-OZ1.5

MedaLux-OZON compliance



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Europe

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TECHNICAL SPECIFICATIONS

INPUT VOLTAGE	110-230VAC
OUTPUT VOLTAGE	3-3,5KV
WORKING FREQUENCY	50-60HZ
POWER CONSUMPTION	25W
PRODUZIONE OZONO	1,5GR/H
ACTUAL AREA (M ²)	<25
AIR FLOW	MAX50CFM(1M ³ /MIN)
CYCLE TIMER FUNCTION	AUTOMATIC
TIMER	PROGRAMMABLE
DIMENSIONS	22CM*18CM*14CM
WEIGHT	2,0KG
BODY COLOR	Black / White / Silver / Bi-color
NOISE LEVEL	40DB



MedaLux-OZON

MODEL MDLX-OZ2.5

MedaLux-OZON compliance



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Europe

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TECHNICAL SPECIFICATIONS

INPUT VOLTAGE	110-230VAC
OUTPUT VOLTAGE	3-3,5KV
WORKING FREQUENCY	50-60HZ
POWER CONSUMPTION	40W
PRODUZIONE OZONO	2,5GR/H
ACTUAL AREA (M ²)	<40
AIR FLOW	MAX80CFM(2M ³ /MIN)
CYCLE TIMER FUNCTION	AUTOMATIC
TIMER	PROGRAMMABLE
DIMENSIONS	22CM*18CM*14CM
WEIGHT	2,5KG
BODY COLOR	Black / White / Silver / Bi-color
NOISE LEVEL	40DB



MedaLux-OZON

MODEL MDLX-OZ3.5

MedaLux-OZON compliance



Italy

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TECHNICAL SPECIFICATIONS

INPUT VOLTAGE	110-230VAC
OUTPUT VOLTAGE	3-3,5KV
WORKING FREQUENCY	50-60HZ
POWER CONSUMPTION	50W
PRODUZIONE OZONO	3,5GR/H
ACTUAL AREA (M ²)	<60
AIR FLOW	MAX106CFM(3M ³ /MIN)
CYCLE TIMER FUNCTION	AUTOMATIC
TIMER	PROGRAMMABLE
DIMENSIONS	22CM*18CM*14CM
WEIGHT	3,5KG
BODY COLOR	Black / White / Silver / Bi-color
NOISE LEVEL	40DB



MedaLux-OZON

MODEL MDLX-OZ₅

MedaLux-OZON compliance



Italy

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Europe

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TECHNICAL SPECIFICATIONS

INPUT VOLTAGE	110-230VAC
OUTPUT VOLTAGE	3-3,5KV
WORKING FREQUENCY	50-60HZ
POWER CONSUMPTION	70W
PRODUZIONE OZONO	5GR/H
ACTUAL AREA (M ²)	<150
AIR FLOW	MAX120CFM(3,5M ³ /MIN)
CYCLE TIMER FUNCTION	AUTOMATIC
TIMER	PROGRAMMABLE
DIMENSIONS	22CM*18CM*14CM
WEIGHT	4,5KG
BODY COLOR	Black / White / Silver / Bi-color
NOISE LEVEL	40DB



MedaLux-OZON

MODEL MDLX-OZ7.5

MedaLux-OZON compliance



Italy

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Europe

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TECHNICAL SPECIFICATIONS

INPUT VOLTAGE	110-230VAC
OUTPUT VOLTAGE	3,5-4KV
WORKING FREQUENCY	50-60HZ
POWER CONSUMPTION	90W
PRODUZIONE OZONO	7,5GR/H
ACTUAL AREA (M2)	<180
AIR FLOW	MAX140CFM(4M3/MIN)
CYCLE TIMER FUNCTION	AUTOMATIC
TIMER	PROGRAMMABLE
DIMENSIONS	22CM*18CM*14CM
WEIGHT	5,0KG
BODY COLOR	Black / White / Silver / Bi-color
NOISE LEVEL	40DB



MedaLux-OZON

MODEL MDLX-OZ10

MedaLux-OZON compliance



Italy

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Europe

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TECHNICAL SPECIFICATIONS	
INPUT VOLTAGE	110-230VAC
OUTPUT VOLTAGE	3,5-4KV
WORKING FREQUENCY	50-60HZ
POWER CONSUMPTION	180W
PRODUZIONE OZONO	10GR/H
ACTUAL AREA (M2)	<250
AIR FLOW	MAX240CFM(10M3/MIN)
CYCLE TIMER FUNCTION	AUTOMATIC
TIMER	PROGRAMMABLE
DIMENSIONS	32CM*25CM*66CM
WEIGHT	10,0KG
BODY COLOR	Black / White / Silver / Bi-color
NOISE LEVEL	40DB



MedaLux-OZON

MODEL MDLX-OZ15

MedaLux-OZON compliance



Italy

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Europe

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TECHNICAL SPECIFICATIONS

INPUT VOLTAGE	110-230VAC
OUTPUT VOLTAGE	3,5-4KV
WORKING FREQUENCY	50-60HZ
POWER CONSUMPTION	200W
PRODUZIONE OZONO	15GR/H
ACTUAL AREA (M2)	<350
AIR FLOW	MAX360CFM(15M3/MIN)
CYCLE TIMER FUNCTION	AUTOMATIC
TIMER	PROGRAMMABLE
DIMENSIONS	32CM*25CM*66CM
WEIGHT	15,0KG
BODY COLOR	Black / White / Silver / Bi-color
NOISE LEVEL	40DB



MedaLux-OZON

MODEL MDLX-OZ30

MedaLux-OZON compliance



Italy

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TECHNICAL SPECIFICATIONS

INPUT VOLTAGE	110-230VAC
OUTPUT VOLTAGE	4-6KV
WORKING FREQUENCY	50-60HZ
POWER CONSUMPTION	350W
PRODUZIONE OZONO	30GR/H
ACTUAL AREA (M2)	<650
AIR FLOW	MAX4,80CFM(20M3/MIN)
CYCLE TIMER FUNCTION	AUTOMATIC
TIMER	PROGRAMMABLE
DIMENSIONS	32CM*25CM*66CM
WEIGHT	18,0KG
BODY COLOR	Black / White / Silver / Bi-color
NOISE LEVEL	40DB



MedaLux-OZON

MODEL MDLX-OZ6o

MedaLux-OZON compliance



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TECHNICAL SPECIFICATIONS

INPUT VOLTAGE	110-230VAC
OUTPUT VOLTAGE	4-6KV
WORKING FREQUENCY	50-60HZ
POWER CONSUMPTION	700W
PRODUZIONE OZONO	60GR/H
ACTUAL AREA (M2)	<1500
AIR FLOW	MAX960CFM(40M3/MIN)
CYCLE TIMER FUNCTION	AUTOMATIC
TIMER	PROGRAMMABLE
DIMENSIONS	44CM*32CM*75CM
WEIGHT	24,0KG
BODY COLOR	Black / White / Silver / Bi-color
NOISE LEVEL	40DB



ACTIVE OXYGEN
GENERATOR AND
OZONIZER



by



Tecno Lighting
Light Tomorrow

Tecno Lighting LLC:

10Valentino Fortunato Str., Ind. Area
84095 – Giffoni Valle Piana (SA) Italy

Tel.: +39 089866010

Fax: + 39 0899828054

E-mail: info@tecnolighting.it

Web: www.tecnolighting.net

DISINFECTION AND SANITATION OF
ENVIRONMENTS

MedaLux -OZON

