

JONIX

pure living

JONIX cube NON THERMAL PLASMA TECHNOLOGY

MOBILE DEVICE FOR INDOOR AIR PURIFICATION
AND DECONTAMINATION
FOR PROFESSIONAL ENVIRONMENTS







JONIX

Tested against Covid-19
by the University of Padua
Bacteria, Moulds,
VOCs and Viruses

up to
-99,9%*

jonixair.com

Effectiveness tested on:

-  covid-19
-  V.O.C.
-  odours
-  bacteria
-  mould
-  virus



*) We must remind you that the reductions in bacteria-moulds-VOC-viruses may vary from those indicated based on the characteristics of the environment and its use (size, presence density, ventilation, basic hygienic conditions). The virucidal activity was tested using the SARS - CoV-2 (Covid-19) strain. All experiments were conducted in a Biosafety Level 3 Laboratory (BSL3). The use of Jonix devices DOES NOT exclude compliance with the provisions for the prevention and containment of the pandemic.



covid-19



V.O.C.



odours



bacteria



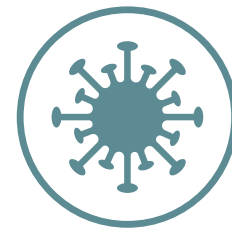
mould



virus

AIR AND SURFACE SANITIZATION DEVICES

JONIX technology uses the advanced oxidation process to decontaminate air induced by a NON-THERMIC PLASMA. JONIX cube air sanitization devices with NTP (Non-Thermal Plasma) are used to sanitize and decontaminate both air and surfaces.



Tested
against SARS-CoV-2
University of Padua

NTP TECHNOLOGY (NON THERMAL-PLASMA)

With the word plasma we mean a blend of ionized gases composed by a large quantity of energized particles, such as ions and electrons, free radicals, ROS, molecules as well as neutral atoms. The ionization of an atom occurs when an electron acquires enough energy to overcome the attractive forces of the atom nucleus. When this result is obtained with processes generating a plasma in which the temperature of the ions and neutral atoms is significantly lower than the temperature of electrons, we are talking about cold plasma and Non-Thermal Plasma (NTP).

The cold plasma is emitting light with wavelengths in both the visible part and the spectrum ultraviolet part. Beside the emission of UV radiations, an important feature of the low-temperature plasma is the presence of strongly reactive high-energy electrons, that generate a number of chemical and physical processes such as oxidation, over-energizing of atoms and molecules, the production of free radicals and other reactive particles. A plasma can be artificially generated supplying a gas with a sufficiently high energy, that means giving a gas energy so as to reorganize the electronic structure of the species (atoms, molecules) and produce over-energized species and ions. One of the most common ways of artificially creating and maintaining a plasma is through a gas electric discharge.

NTP JONIX technology makes use of the so called non-thermic discharges with a dielectric barrier method. The potentialities of ionization and the density of charged species generated from the plasma with electrical barrier discharge (DBD) are higher compared to the ones present in the non-thermic plasma generated by other systems.

ONE OF A KIND NATURAL SANITISATION SYSTEM WITHOUT THE USE OF CHEMICALS

- **High efficiency:** reduction of bioburden and of volatile organic compounds up to 99% compared to the initial concentration.
- **Natural process:** it does not use nor produces residual chemical substances.
Sanitizza/purifica l'aria e le superfici interne degli ascensori in modo continuativo, senza generare sostanze residue.
- **Strong deodorizing action:** it quickly eliminates odors from the air.
- **Health protection:** without contraindications, thanks to a technology that has been positively tested and used in the medical, food and pharmaceutical fields.



JONIX cube is a device of decontaminating and sanitization with a cold plasma technology; it represents the ideal solution for purifying and decontaminating of the internal surfaces and the air in all environments where it is necessary to constantly eliminate biological contamination in the air.

Its continuous activity, in addition to air sanitisation, it generates a correct ionisation of the air which guarantees environmental comfort helping the reduction of work-related stress and promotes respiratory functions. With the purpose to protect and promote health in the workplace.

Immediately operational, it does not require any set-up for its installation; it is a very versatile product ideal for improving the environmental comfort of professional activities such as hairdressers or beauty centers, medical clinics, schools, environments where an intensive air sanitisation cycle is also required at the end of the activities.

JONIX cube is simple and essential. Compact, agile and silent, it quickly reduces bacteriological and particulate charges.

CONTROL PANEL

JONIX cube device is supplied fully cabled and only requires connection to a standard 230V/ ~1/ 50Hz socket. The integrated controls are very intuitive and allow you to set its functions on 3 different timing levels:

- Enabling level 1 : up to 50 m².
- Enabling level 2 : 51 ÷ 90 m².
- Enabling level 3 : Continuous sanitization cycle.*

*) Level 3 (maximum) is recommended as a night decontamination activities. Set level 3 at the end of the work activities, the device will remain active for 6 hours, at the end of which, it will automatically return to level 1.





covid-19



V.O.C.



odours



bacteria



mould



virus

EFFICIENCY

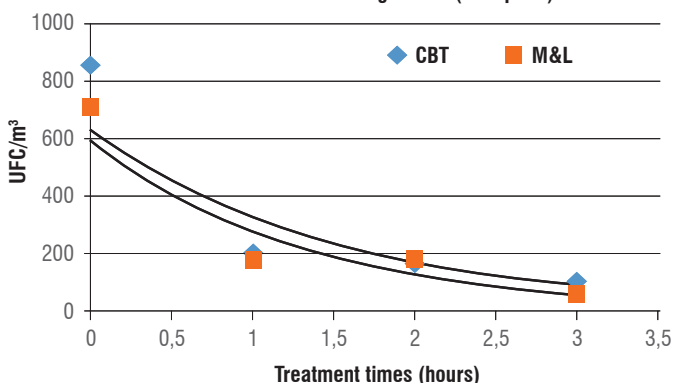
The biocid and neutralization activity of polluting substances takes place in a maximum of 60 minutes from activation and reaches the optimum conditions obtainable within 24 hours. The time varies according to the environmental characteristics and to the polluting load present, generated in the environment or infiltrating from outside. The perpetual operation of the device prevents the spread of biocontaminants also generated continuously during health activities.

In microorganisms (bacteria, moulds, yeasts, viruses): oxidising molecules react with the phospholipids and proteins of the cell membrane of microorganisms and destroy them, opening a passage for the oxidants to enter the cell. Here the molecules oxidise the proteins and nucleic acids of the DNA, breaking it into small fragments and rendering it unusable. This then quickly leads to cell death.

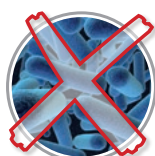
The device has been tested and is effective on: + and - gram bacteria, moulds and yeasts, viruses, SARS CoV-2, bacterial endotoxins, VOCs (volatile organic compounds) and odours, in compliance with the current regulations.

JONIX cube eliminates odours of organic and chemical origin, reactive particles break the chemical bonds of odorous substances by decomposing them.

Effects of JONIX cube treatment on airborne micro-organisms (RSU plant)



VOC Volatile Organic Compounds	Abatement % with NTP JONIX
Toluene	> 95
TBA (tribomanisolo)	> 95
Ethyl acetates	> 95
Xylenes	> 95
Aromatics C9	> 95
Aliphatic compounds (C5-12)	> 95
Aromatic compounds (C7-C10)	> 95
Volatile Organic Compounds	> 95



Listeria monocytogenes



Staphylococcus aureus



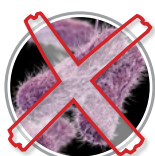
Escherichia coli



Pseudomonas



Aspergillus brasiliensis



Salmonella



Legionella

APPLICATION SECTORS

The JONIX cube device has been specifically designed to be used in places with a high concentration of people such as waiting rooms in the hairdressing and aesthetics sectors, but, due to its compact shape and its sanitising action, it can be used in many other environments with smaller sizes such as offices, medical, dental and veterinary offices, etc. Operation level III, which can be selected from the front keypad, activates the continuous sanitising function for 6 hours, guaranteeing complete decontamination of air on surfaces.

ECOLOGICAL AND COMPATIBLE IN CASE OF PEOPLE'S PRESENCE

JONIX cube device does not use chemicals product and does not generate residual substances. It continuously sanitizes both the air and the surfaces, no negative impact on materials. It eliminates the odours thereby improving indoor comfort. It guarantees workers healthy air as required by the regulations for the safety of workers.



PRODUCTS CONTROLLED AND VALIDATED FOR INDOOR AIR HEALTH



TÜV PROFICERT PROFiCERT certifies the sincerity of the data and performances declared in scientific dossiers product catalogs. Using laboratory data, which have been evaluated as reliable.



Bio-Safe® Certification: a guarantee mark for health and well-being living within confined spaces. JONIX cube devices have been tested according to the patented Bio-Safe® protocol which has verified and certified their ability to reduce contaminants. These products have been tested, according to the Bio-Safe® protocol, through laboratory analysis with a test chamber (UNI EN 16000) capable of verifying their emission potential and through environmental surveys (UNI EN 14412).



covid-19



V.O.C.



odours



bacteria



mould



virus

TECHNICAL FEATURES

Model	JONIX cube
Generators replacement	every 8740 of actual operation of generators
Generators maintenance	every 840 of actual operation of generators
Consumption (W)	10
Power consumption	51
Dimensions (mm)	238 x 238 x 260
Weight (kg)	3.45
Type of power supply	230 V / ~1 / 50 Hz
Max absorbed power (W)	10



Enabling level 1  : up to 50 m².

Enabling level 2  : 51 ÷ 90 m².

Enabling level 3  : Continuous sanitization cycle.*

*) Level 3 (maximum) is recommended as a night decontamination activities. Set level 3 at the end of the work activities, the device will remain active for 6 hours, at the end of which, it will automatically return to level 1.



MADE IN ITALY

Designed and created by expert technicians specialized on air purification.



Hallmark for health and living comfort
in confined spaces
(UNI EN 16000- UNI EN14 412).



Reference standards

NATIONAL LAWS AND STANDARDS

Valid for the following categories: Civil, Industrial, and Healthcare sectors

Italian Legislative Decree 81/2008 Consolidated Law on Health and Safety in the Workplace of 10th April 2008 (published in the Ordinary Supplement No. 108 of the Official Gazette No. 101 of 30th April 2008); Legislative Decree No. 81 was published on 9th April 2008) • Guidelines issued by the Italian Presidency of the Council of Ministers (Permanent Conference for relations between the State and the Regions), Center for disease control and prevention, General Directorate of Health prevention, Dept. II entitled: "Outline of guidelines for the prevention of indoor risk factors for allergies and asthma in schools" of 18th November 2010 • Guidelines issued by the Italian Presidency of the Council of Ministers (Permanent Conference for relations between the State and the Regions), entitled (Outline of Guidelines for the definition of technical protocols for predictive maintenance on air conditioning systems" of 5th October 2006. • Guidelines issued by the Italian Presidency of the Council of Ministers (Permanent Conference for relations between the State and the Regions), "Operating procedure for the appraisal and management of risks connected to the sanitation of air treatment systems" of 7th February 2013 • Guidelines for preventing and controlling legionellosis D. G. No. 103, of 5th May 2000 (Ministry of Health - Permanent Conference for relations between the State, the Regions and the Independent Provinces of Trento and Bolzano) • Guidelines indicating recommendations on legionellosis for managers of tourist and spa facilities of 13th January 2005 (Permanent Conference for relations between the State, the Regions and the independent provinces of Trento and Bolzano) • Guidelines for preventing and controlling legionellosis of 7th May 2015 (Ministry of Health - Permanent Conference for relations between the State, the Regions and the independent Provinces of Trento and Bolzano) • Guidelines issued by the Italian Presidency of the Council of Ministers (Permanent Conference for Relations between the State and the Regions) entitled "Guidelines for the protection and the promotion of health in confined environments and for the prevention and control of legionellosis" of 27th September 2001.

REGIONAL LAWS AND STANDARDS

Valid for the following categories: Civil, Industrial, and Healthcare sectors

Region: Liguria, Law No. 24 of 2nd July 2002 • Region: Puglia, Law No. 45 of 23rd December 2008 "Health provisions." • Region: Emilia Romagna -resolution of the Regional Council No. 1115 of 21st July 2008 "Regional guidelines for monitoring and controlling legionellosis". • Region: Molise – Law No. 15 of 13th July 2011 "Regulations for the prevention of the spreading of infectious diseases". • Guidelines for the prevention and control of legionellosis in Lombardy of 28/02/2005, Directorate-General for Health Decree No. 2907.

Valid for the following categories: Healthcare sector

Regional law of Lombardy No. 33 of 30th December 2009 - New Regional Consolidated laws on health and Implementing Decree No. 1751 dated 24/02/2009 of the Directorate-General for Health of Lombardy.





covid-19



V.O.C.



odours



bacteria



mould



virus

jonixair.com

JONIX S.p.A.
Benefit Corporation

info@jonixair.com
Certified mail: jonixsr@legalmail.it



Registered Office:
Viale Spagna 31/33
35020 Tribano (PD) - Italy
Ph. +39 049 9588511
Fax +39 049 9588522

Operational Headquarters:
Via dell'Artigianato, 1
35020 San Pietro Viminario
(PD) - Italy
Ph. +39 0429 760311

**Research and Development
Headquarters:**
Via Tegulaia 10/b
56121 Pisa - Italy
Ph. +39 050 985165

JX65GR0007