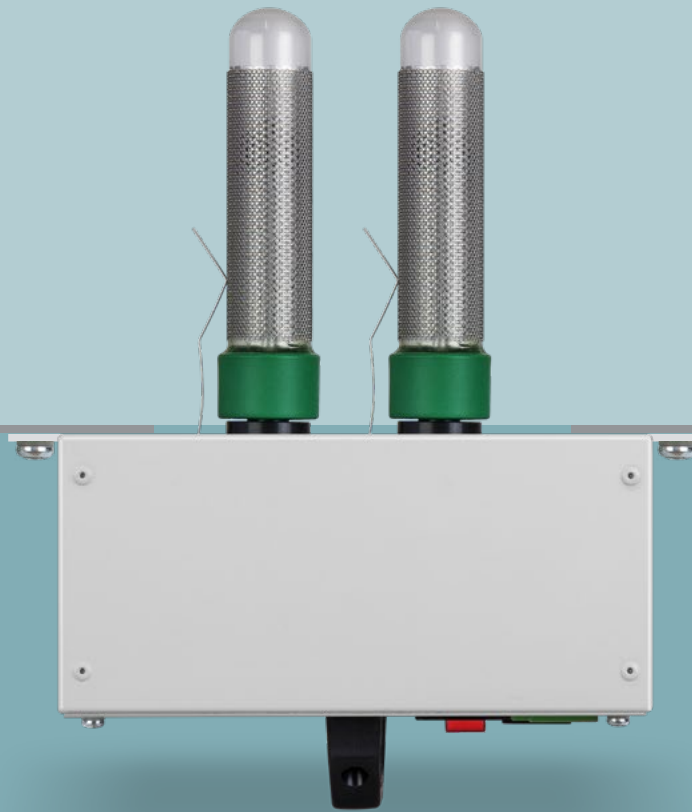


JONIX

pure living

JONIX duct NON THERMAL PLASMA TECHNOLOGY

DEVICE FOR SANITIZATION
AND DECONTAMINATION OF AERAILIC DUCTS



* 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.

Effectiveness tested on:



covid-19



V.O.C.



odours



bacteria



mould



virus



multidrug-resistant
bacteria

JONIX

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

up to
-99,9%*

jonixair.com





covid-19



V.O.C.



odours



bacteria



mould



virus



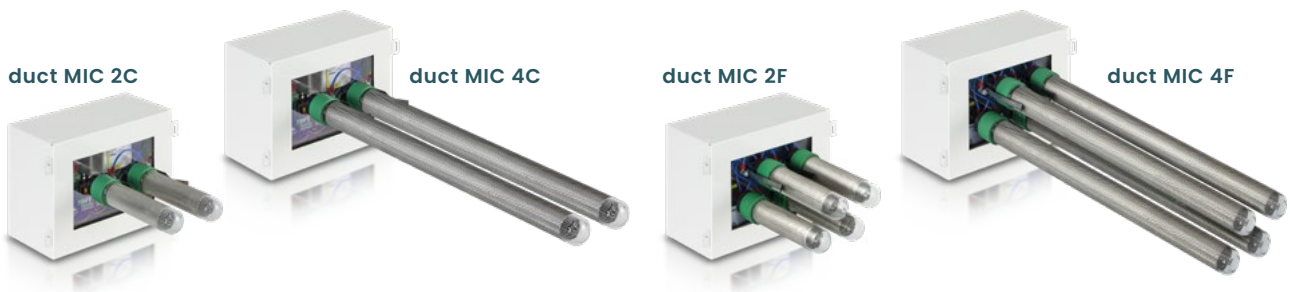
multiresistant
bacteria

SANITAZION AND DECONTAMINATION OF AERAILIC DUCTS

Bacterial and chemical pollutants develop inside air distribution systems and are transported by the airflow to the rooms.

JONIX duct with cold plasma technology eliminates bacteria, viruses, moulds, chemical pollutants, VOC and odours ensuring bacterial decontamination of the ducts' internal surfaces as well as of the air that flows through.

The devices are easy to install thanks to the connections supplied as standard.



There are four different models, that is four versions of increasing power level, which can be assembled to form a unit consisting of one version only; it is also possible to create a unit consisting of a combination of different versions to match the volume of the air to be treated.

NTP technology: a choice of value, effectiveness and sustainability

The heart of our research and product development is Jonix Non Thermal Plasma Technology, an advanced form of ionisation that is safe and effective for the decomposition of pollutants and the sanitisation of environments and surfaces: it is in fact capable of attacking and neutralising living microorganisms (viruses, bacteria, moulds) and polluting chemical molecules (VOC, particulates).

Jonix Non Thermal Plasma is a no touch sanitisation technology that can be used continuously in the home and professional environment and in the presence of people, as it does not use chemicals, does not release residues into the environments being treated and has a low energy consumption combined with a significant sanitising power.

All our devices use NTP technology which produces reactive and therefore sanitising species, through Jonix NTP generators, special cylinders made of recyclable materials. The architecture of the generator and the control mode are **covered by patents as a whole, thus making our technology unique and non-replicable in terms of efficiency and effectiveness.**

As an work

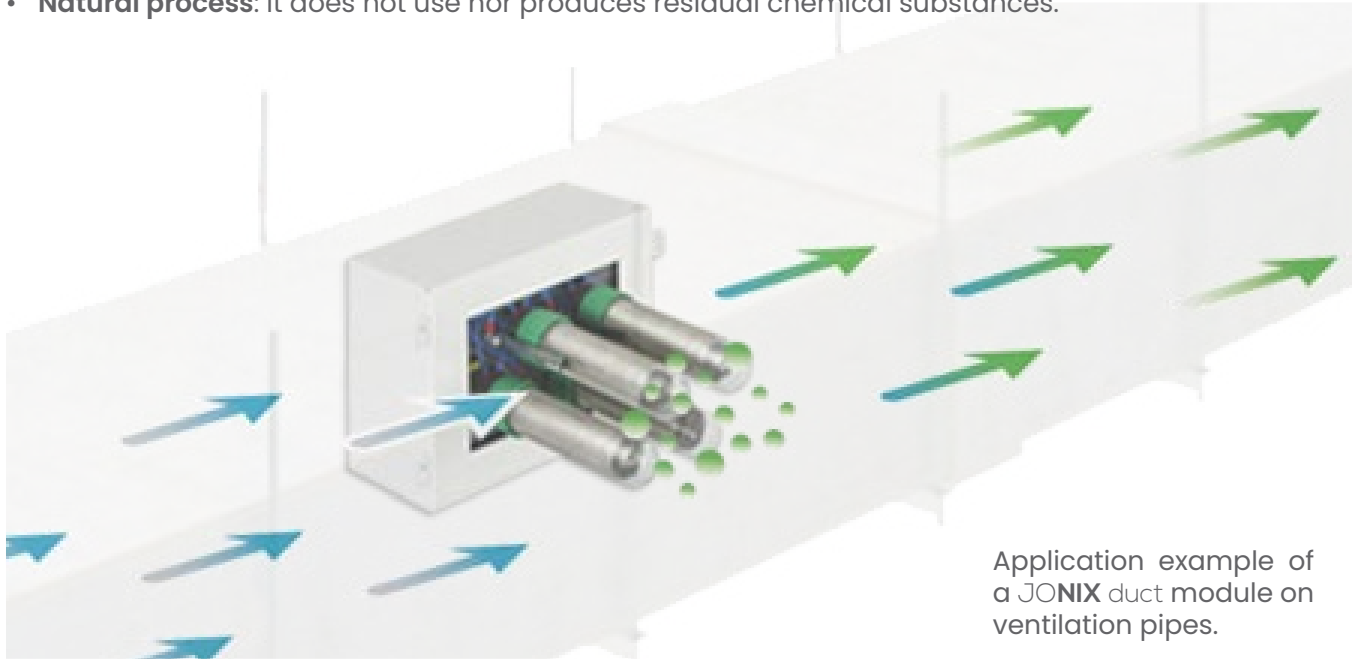
Jonix Non Thermal Plasma Technology is a physical phenomenon generated at room temperature that uses air as a gaseous mixture, transforming it into an ionised gas consisting of various electrically charged particles: electrons, ions, atoms and molecules.

These loaded species, in the presence of oxygen, take the name of RS (Reactive Species) and are highly reactive, therefore capable of attacking a wide variety of polluting compounds, oxidising and disintegrating them. One of the most common ways to artificially create and maintain a plasma is through an electrical discharge in a gas.

Jonix Non Thermal Plasma Technology uses so-called non-thermal discharges with the dielectric barrier method. The ionisation potential and density of charged species generated by electrical barrier discharge (DBD) plasma are greater than those present in non-thermal plasma generated by other systems.

The most significant features of JONIX duct are:

- **High efficiency:** reduction of bioburden and of volatile organic compounds up to 99% compared to the initial concentration;
- **Low power consumption:** from 10 to 40 VA;
- **Strong deodorizing action:** it eliminates odours from the air flowing through;
- **Natural process:** it does not use nor produces residual chemical substances.



Application example of a JONIX duct module on ventilation pipes.



CONTROL PANEL

JONIX duct is supplied fully cabled and only requires connection to a standard 230 / 1~ / 50Hz socket.

JONIX duct

JONIX duct is a cold plasma technology device for sanitizing, decontaminating and purifying the internal surfaces of the distribution pipes and the air that flows through them. Designed to be easily installed in all kinds of ductwork where it is necessary to prevent or eliminate the formation of bacterial colonies on the surfaces of the ducts or of airborne ones. JONIX duct is simple and essential. Consistent with an integrated management of the facilities, control and functions of the device can be managed remotely.

ENVIRONMENTALLY FRIENDLY AND COMPATIBLE WITH HUMAN PRESENCE

No chemical product is used and it has zero environmental impact. It continuously sanitizes both the air and the surfaces, no negative impact on materials. It eliminates the odours thereby improving indoor comfort. It guarantees the good quality of the air to the operators, in accordance with the regulations relating the safety of the workers.



covid-19



V.O.C.



odours



bacteria



mould



virus



multiresistant
bacteria

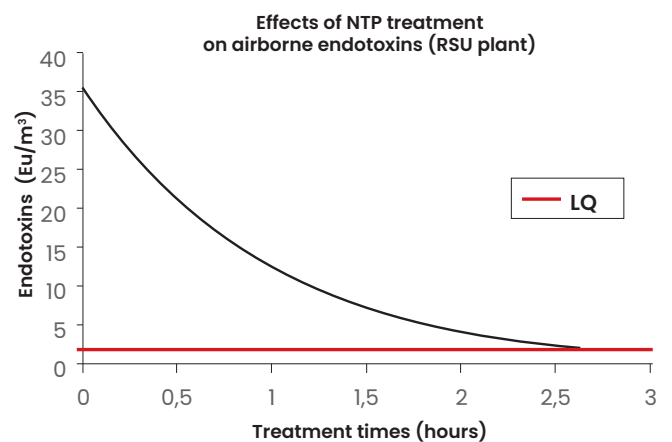
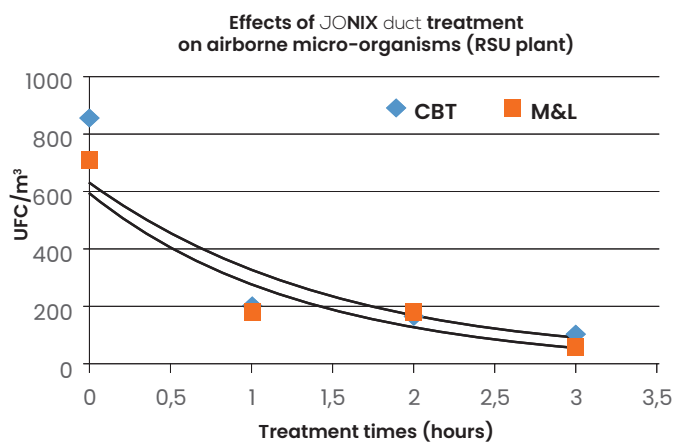
EFFICIENCY

The bio acid activity occurs for the oxidation process of the membrane cell. Reactive particles carrying electric charges, among which the most important ones are the oxygen reactive species (for example atomic oxygen and ozone), which concentrate on the membrane surface causing its destruction. The device is efficient on: gram + and - bacteria, yeast and mould, virus, bacterial endotoxins, VOC (volatile organic compound), odours.

On new pipelines, non-thermal plasma (NTP) prevents the formation of bacterial colonies on the internal surfaces as well as the spreading of contamination through the airflow.

On existing pipelines, in case of bacterial colonies that have already developed, the non-thermal plasma oxidizes the microorganisms thus making any pre-existing particulate deposits microbiologically inert. The bio acid and neutralization activity of polluting substances can be measured after few hours from the activation of the device.

JONIX duct removes chemical and organic odors, reactive particles break chemical bonds of odorous substances which then decompose.



Listeria
monocytogenes



Staphylococcus
aureus



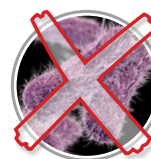
Escherichia
coli



Pseudomonas



Aspergillus
brasiliensis



Salmonella



Legionella

APPLICATION SECTORS AND OPERATING CYCLES

The devices can be installed in any type of ductwork: PAL, galvanized steel, steel; textile pipes require a plenum connection. The device functioning can be operated on a continuous basis or in cycles based on specific needs.



ECOLOGICAL PLANNING

Ecological=no chemical products

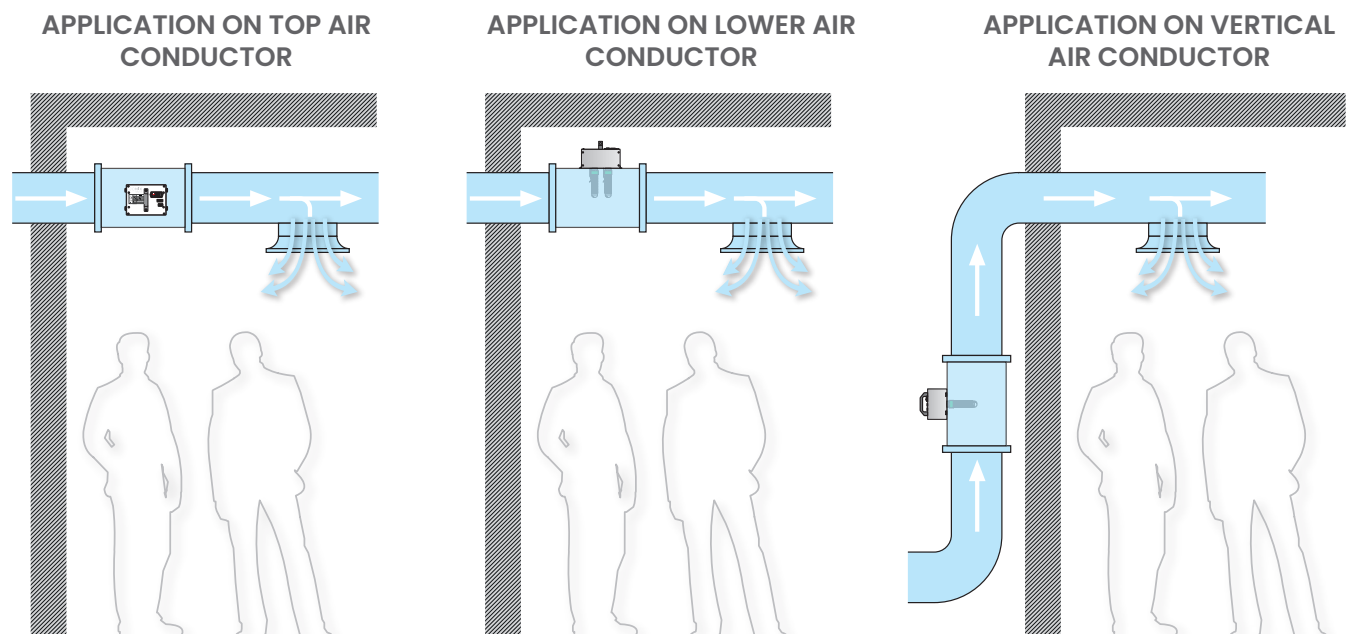
JONIX duct uses no chemical products and produces no residual substances.

It can be used without interruptions, even when people are present, or activities are in progress.

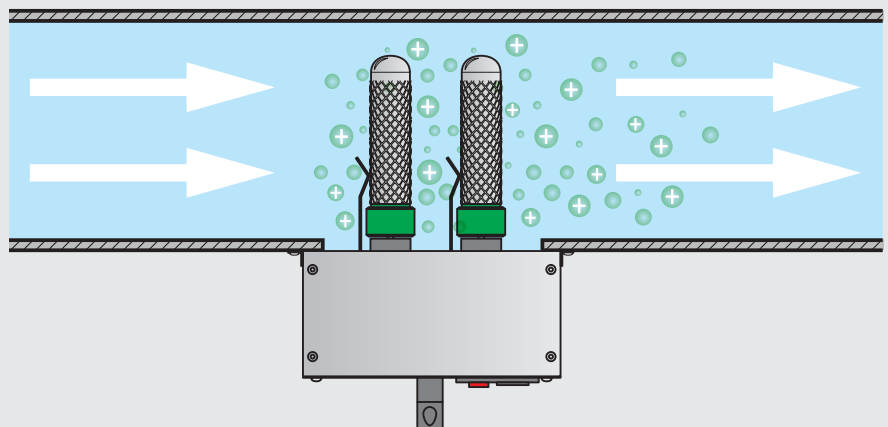
Its continuous activity, besides purifying the air, generates a correct air ionization that ensures an environmental comfort for the reduction of stress from work, it encourages proper breathing. In order to protect and promote health in working environments.

EASY TO INSTALL IN ANY DUCTWORK AND WITH ANY MATERIAL

JONIX duct devices – thanks to their adaptability and to their space-saving designs – can be easily fixed on either side of the duct. All you need is an opening on a wall (in horizontal or vertical position): the device can be fastened using the eyelets supplied as standard.



Fastening example of the JONIX duct module on ventilation pipes.





covid-19



V.O.C.



odours



bacteria



mould



virus



multiresistant
bacteria

TECHNICAL FEATURES

MODEL

Modular and easy to install.
Designed to fit all existing plants and in the construction phase.
The different models can be assembled to form a unit consisting of one version only; it is also possible to create a unit consisting of a combination of different versions to match the volume of the air to be treated.

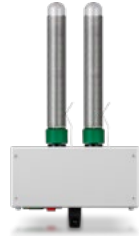
duct 2C



duct 4C



duct 2F



duct 4F

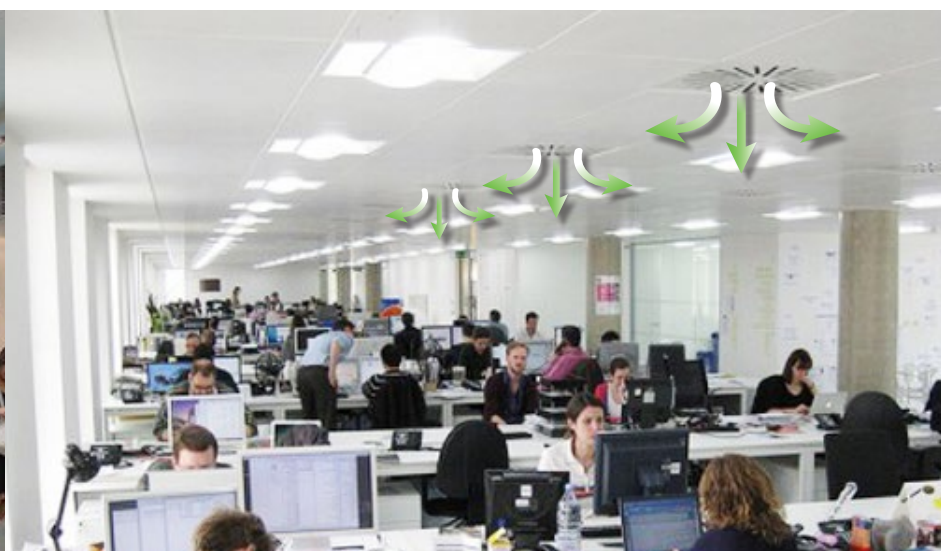


| MODEL | duct 2C | duct 4C | duct 2F | duct 4F |
|-----------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Code | 70MIC2C | 70MIC4C | 70MIC2F | 70MIC4F |
| Plasma generators | 2 type 175 mm | 4 type 175 mm | 2 type 520 mm | 4 type 520 mm |
| Dimensions | 290 L x 350 P x 200 H mm | 290 L x 350 P x 200 H mm | 290 L x 350 P x 700 H mm | 290 L x 350 P x 700 H mm |
| Weight | 4 kg | 5 kg | 5 kg | 6 kg |
| Type of power supply | 230 V / 1~ / 50 Hz | 230 V / 1~ / 50 Hz | 230 V / 1~ / 50 Hz | 230 V / 1~ / 50 Hz |
| Consumption | 10 W | 20 W | 20 W | 40 W |
| Channel air flow rate | 500 m ³ /h | 1000 m ³ /h | 2000 m ³ /h | 4000 m ³ /h |
| Colour | White | White | White | White |



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 O. 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.

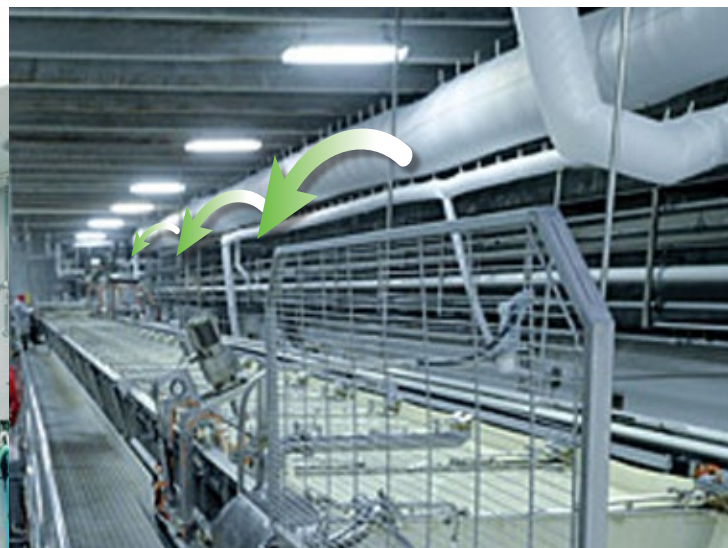
REGIONAL LAWS AND STANDARDS

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



multiresistant
bacteria

jonixair.com

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