



Effective  
against  
**Covid-19**

-99.99%  
Padua University  
Tests



FABBRICATO IN ITALIA

# AIR IONIZATION AGAINST COVID-19

NEW NON THERMAL PLASMA TECHNOLOGY: SANIFICATION

**Certified Medical Devices** for the purification and decontamination of the air and surfaces; the new advanced Cold Plasma Technology eliminates bacteria, molds, viruses, and pollutants. This is the first device class with **proven efficacy also against Covid-19** (independent tests performed by the Italian University of Padua).

These devices create and keep the ideal environments for people, by guaranteeing **the best hygienic conditions of the air and the surfaces**. The aim is to prevent and stop the airborne bacterial spread and reducing the contamination risks.

## HEALTH AND SAFETY

Compared to other technologies, these devices can **sanitize also the surfaces and do not release any harmful substances**. Contrary to the classic air purifiers, the contaminants are not retained inside filters but are completely destroyed. Furthermore, being a totally safe process, **the presence of people is allowed and recommended**.



The choice of each component comes from a long experience in the field, by using the best dynamic materials to meet every requirement in terms of **resistance, functionality, and durability.**

These devices are **designed and made in Italy.**

*The ideal conditions for humans are created, as well as it is ensured an improvement for the overall health level. These devices can reduce the breathing issues for allergic and asthmatic people, they optimize the lung functions and improve health functions and oxygen absorption.*

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## PRODUCTS AND SERVICES

Wide range of products sized to the specific applications and volumes to be treated. 360-degree consulting services and custom design. Dedicated assistance and maintenance services programs according to any specific need.

Cover Technology S.r.l.

Via Capa', 3 25085 Serle (BS) - ITALY

info@covertechnology.com

T +39 030 69 08 111

www.covertechnology.com

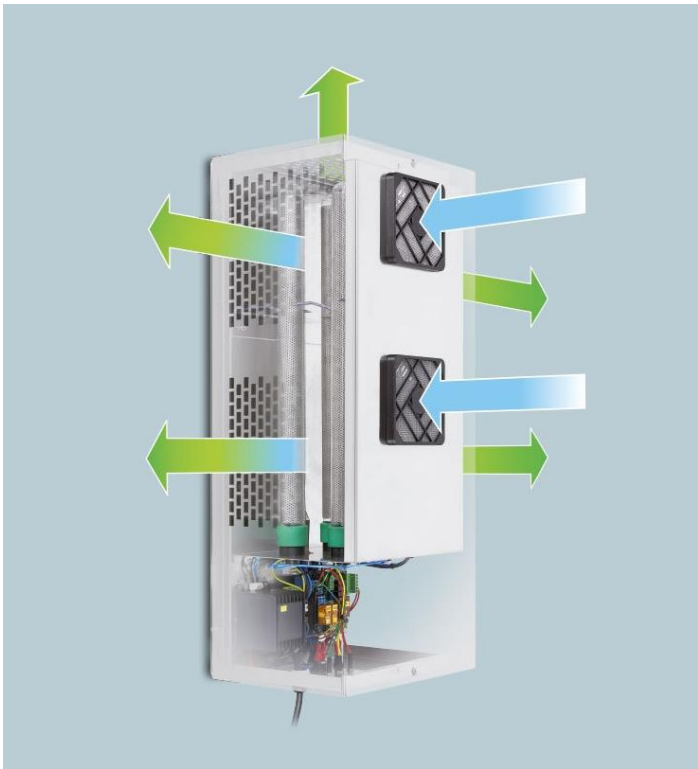


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# NEXT GEN NON-THERMAL PLASMA.

## TECHNOLOGY AND ADVANTAGES



The technology, at the base, implements an advanced oxidation process for air decontamination induced by **non-thermal plasma**. This plasma is an ionized gas that is generated at ambient temperature and consists of several electrically charged particles (like ions, atoms, and organic and chemical molecules) that collide with each other and create new oxidizing species.

This is considered **the safest and most effective** process for breaking down the pollutants.

The sanitizing devices with this NTP (Non-Thermal Plasma) technology are used to sanitize and decontaminate the air and surfaces where high standards of hygiene and safety are required.

## TECHNOLOGICAL ADVANTAGES

- 1 Safety:** No filters or other parts where bacteria or viruses can accumulate are required. The maintenance and any other operations are always safe.
- 2 People:** It works even in the presence of people during the sanitation process. Other technologies are not compatible with human exposure (e.g. Ozone, UV-C, hydrogen peroxide).
- 3 Surfaces:** The surface sanitization (in addition to the air) is ensured in any environment. Conventional air purifiers have no effect on the materials.
- 4 Covid-19:** This is the only totally safe technology that has been successfully tested for SARS Cov-2 (Covid-19). The same effect is also valid for other viruses and bacteria.
- 5 Medical Device:** the reliability, the certifications, and several scientific tests have made it possible to obtain this qualification. There are specific tax relief as per national regulations.

# OTHER TECHNOLOGIES: COMPARISON.

## TECHNOLOGY AND ADVANTAGES

Non-Thermal Plasma	Ozone	UV-C rays	Hydrogen peroxide	HEPA Filters
Air & Surfaces sanification	Air & Surfaces sanification	Air & Surfaces sanification	Air and Surfaces sanification	No surfaces. From 0.3um in air
No risks for people	Harmful to people	Harmful to people (UV-C)	Harmful to people	No risks for people
No qualified personnel	Qualified personnel	No qualified personnel	Qualified personnel	No qualified personnel
No ventilation required	Ventilation is mandatory	No ventilation required	Ventilation is mandatory	No ventilation required
Continuous use or on demand	To be re-run every time	To be re-run every time	To be re-run every time	Continuous use or on demand
Effective for SARS Cov-2	Tested for generic viruses	Tested for generic viruses	Efficacia su SARS Cov-2	Effectiveness is very poor
Surfaces sanification	Surfaces sanification	Superfici sanificate only if UV in room	Surfaces sanification	Surfaces are not-sanificated
No emission	Ozone emission	UV-C rays emission	H <sub>2</sub> O <sub>2</sub> emission	No emission



It is clear that the "Non-thermal plasma" technology is the best one in terms of **effectiveness and safety for people.**



Compact ionization device for military tents (CT-CUBGRN)



# DEVICES CHOICE.

## ENVIRONMENTS AND DESTINATION OF USE

01.



### SMALL ROOMS

A single unit can sanitize rooms up to 85m<sup>2</sup>. Thanks to its innovative technology, it works as a full ionizing source and does not need any additional filter, making maintenance procedures extremely low.

02.



### MEDIUM & BIG VOLUMES

Clean lines and non-thermal plasma technology to eliminate viruses, bacteria, molds, and pollutants. They are available in different models and sizes, which can be sized according to the environment.

03.



### MOBILE SYSTEM

Mobile devices for air filtration and sanitation with non-thermal plasma technology. The three levels of filtration (G4 + F7 + H) and sanitization guarantee absolute filtration. They are available in different models and sizes, which can be sized according to the environment.

04.



### AIR DISTRIBUTION DUCTS

Sanitizing of the interior surfaces of the air distribution ducts, UTA, fan coils and VMC, to ensure also a good air quality. They are available in different models and sizes, which can be sized according to the environment.



# DEVICES CHOICE.

## ENVIRONMENTS AND DESTINATION OF USE



The choice of the best device or system is made by evaluating the following 3 main factors: **the volume of the spaces to be sanitized, the type of activity carried out, the number of people as well as their stay or behaviour.**

Our expert technicians will be able to advise you whether to use one or more compact machines or a higher class device.

Different versions of the device, **mobile or fixed**, are available to sanitize spaces from 105m<sup>3</sup> to 2000m<sup>3</sup> and with airflow up to 6000m<sup>3</sup>/h.

The **biocidal and neutralization** activity of pollutants is effective already after the first hours of use. Continuous operation prevents the spread of bacterial contamination generated during people's activities.

# PRODUCT CATALOGUE.

## AIR IONIZER - NEW NON-THERMAL PLASMA

Product Code	Description	Size (mm)	Weight (kg)	Air flow (m3/h)	Power. Max (W)	MED Device	Air Volume up to (m3)	Other
CT-MXMT13	Mobile device for air filtration and sanitation with non-thermal plasma technology. Three levels of filtration (G4 + F7 + H) and sanitizing function for the absolute filtration of suspended dust and the elimination of 99.9% of bacteria, viruses and molds.	1.305 L x 715 P x 2.165 H	220	1.500-6.000	2800	Class 1	-	Filtration G4+F7+H
CT-MXMT07	Mobile device for air filtration and sanitation with non-thermal plasma technology. Three levels of filtration (G4 + F7 + H) and sanitizing function for the absolute filtration of suspended dust and the elimination of 99.9% of bacteria, viruses and molds.	1.305 L x 715 P x 2.165 H	220	1.500-6.000	2800	Class 1	-	Filtration G4+F7+H
CT-MT13	Mobile device for air filtration and sanitation with non-thermal plasma technology. Three levels of filtration (G4 + F7 + H) and sanitizing function for the absolute filtration of suspended dust and the elimination of 99.9% of bacteria, viruses and molds.	678 L x 700 P x 2.035 H	175	500-3.000	800	Class 1	-	Filtration G4+F7+H
CT-MT07	Mobile device for air filtration and sanitation with non-thermal plasma technology. Three levels of filtration (G4 + F7 + H) and sanitizing function for the absolute filtration of suspended dust and the elimination of 99.9% of bacteria, viruses and molds.	678 L x 700 P x 2.035 H	175	500-3.000	800	Class 1	-	Filtration G4+F7+H

# PRODUCT CATALOGUE.

## AIR IONIZER - NEW NON-THERMAL PLASMA

Product Code	Description	Size (mm)	Weight (kg)	Air flow (m3/h)	Power. Max (W)	MED Device	Air Volume up to (m3)	Other
CT-MNMT04	Mobile device for air filtration and sanitation with non-thermal plasma technology. Three levels of filtration (G4 + F7 + H) and sanitizing function for the absolute filtration of suspended dust and the elimination of 99.9% of bacteria, viruses and molds.	560 L x 460 P x 1.060 H	65	400- 2.000	600	Class 1	-	Filtration G4+F7+H
CT-CUBGRN	Compact Ionizer device. Suggested for areas up to: 85m2 Colour: Green NATO	238 L x 238 P x 260 H	4	40	10	tba	230 (85m2)	Green NATO
CT-CUBWH	Compact Ionizing device. Suggested for areas up to: 85m2 Colour: White	238 L x 238 P x 260 H	4	40	10	Class 1	230 (85m2)	White
CT-CUBBK	Compact Ionizer device. Suggested for areas up to: 85m2 Colour: Black	239 L x 238 P x 260 H	4	40	10	Class 1	230 (85m2)	Black
CT-STKL1C	Ionizing device for wall or ceiling installation. Made of AISI 304 stainless steel. Suggested up to 105m3	190 L x 150 P x 375 H	5	160	33	Class 1	105	AISI 304 stainless steel
CT-STKL2C	Ionizing device for wall or ceiling installation. Made of AISI 304 stainless steel. Suggested up to 200m3	190 L x 150 P x 375 H	5	160	33	Class 1	200	AISI 304 stainless steel
CT-STKL4C	Ionizing device for wall or ceiling installation. Made of AISI 304 stainless steel. Suggested up to 500m3	320 L x 260 P x 400 H	9	160	36	Class 1	500	AISI 304 stainless steel





# PRODUCT CATALOGUE.

## AIR IONIZER - NEW NON-THERMAL PLASMA

Product Code	Description	Size (mm)	Weight (kg)	Air flow (m3/h)	Power. Max (W)	MED Device	Air Volume up to (m3)	Other
CT-STKL2F	Ionizing device for wall or ceiling installation. Made of AISI 304 stainless steel. Suggested up to 1000m3	310 L x 260 P x 750 H	14	320	65	Class 1	1000	AISI 304 stainless steel
CT-STKL4F	Ionizing device for wall or ceiling installation. Made of AISI 304 stainless steel. Suggested up to 2000m3	310 L x 260 P x 750 H	15	320	67	Class 1	2.000	AISI 304 stainless steel
CT-70MIC2C	Ionizing module for the air distribution ducts, UTA, fan coils and VMC. Suggested up to 500m3	290 L x 350 P x 200 H	4	500	10	tba	500	DUCT, FANCOIL, UC, AHU
CT-70MIC4C	Ionizing module for the air distribution ducts, UTA, fan coils and VMC. Suggested up to 1.000m3	290 L x 350 P x 200 H	5	1.000	8	tba	1.000	DUCT, FANCOIL, UC, AHU
CT-70MIC2F	Ionizing module for the air distribution ducts, UTA, fan coils and VMC. Suggested up to 2.000m3	290 L x 350 P x 700 H	5	2.000	9	tba	2.000	DUCT, FANCOIL, UC, AHU
CT-70MIC4F	Ionizing module for the air distribution ducts, UTA, fan coils and VMC. Suggested up to 4.000m3	290 L x 350 P x 700 H	6	4.000	11	tba	4.000	DUCT, FANCOIL, UC, AHU
CT-UPIN	Ionizing device for Vehicles and small room. Suggested up to 105m3	300 L x 300 P x 93 H	4.5	90	65	tba	105	AISI 304 stainless steel



# EXAMPLE FOR SYSTEM SIZING.

## APPLICATIONS

Application	Room Size	Volume	Product Code	Quantity
Container 20'	5.9x2.35x2.39m	33m <sup>3</sup>	CT-STKL1C	1
Container 40'	10.2x2.35x2.39m	68m <sup>3</sup>	CT-STKL1C	1
Tent standard	6x6m	90m <sup>3</sup>	CT-STKL1C	1
Office standard	< 38m <sup>2</sup>	< 105m <sup>3</sup>	CT-STKL1C	1
Tent medium	8x12.5m	320m <sup>3</sup>	CT-STKL2F	1
Tent modular	10x15m	592m <sup>3</sup>	CT-STKL2F	1
Hangar small	19x25m	3415m <sup>3</sup>	CT-STKL4F	3

It is possible to keep the rooms decontaminated and sanitized by constantly using the device during regular activities.

The data reported above are as reference, each application requires a specific study according to the activities carried out in the environments. The space to be treated should be as open as possible to maximise the working time.



# EXCELLENCE AND CERTIFICATIONS.

## TEST AND PERFORMANCES

- 1 COVID-19:** The Department of **Molecular Medicine**, directed by prof. Andrea Crisanti **at the Italian Padua University**, has tested the Non Thermal Plasma technology adopted in Jonix devices in laboratory to verify its virucidal activity. The results obtained show that the tested device has an effective antiviral activity against **SARS-CoV-2 with a reduction of the viral load equal to 99.9999%**. To ensure maximum precision and accuracy, the test was performed in compliance with the UNI EN 14476: 2019 standard "Quantitative suspension test for the evaluation of virucidal activity in the medical field - Test method and requirements (phase 2, stage 1)" and the UNI EN 17272: 2020 standard "Method for disinfecting indoor air by automated processes - Determination of bactericidal, mycobactericidal, sporicidal, fungicidal, yeasticidal, virucidal and phagocytic activity". The virucidal performances has been tested using the SARS - CoV-2 (Covid-19) strain. **All experiments were conducted inside Biosafety Level 3 Laboratory (BSL3)**. The Scientific Dossier is available upon request..
- 2 Medical Devices:** The devices included in the list have been registered and **certified as Medical Devices Class I** for active sanitation and purification of the Air from the Italian Ministry of Health.
- 3 TÜV PROFiCERT-product:** it certifies the quality of device manufacturing processes through on-site audits, where the following items are examined: Company management, employee qualifications, customer satisfaction, internal inspection of company processes and the exact definition of all procedures. Each product is validated and continuously monitored during the production steps.
- 4 Green Building:** These devices meet the assessment requirements of green buildings: **Leed®**, **Breem®**, **Estidama®**, **HK Beam®**, **Well®** according to the **Ongreening®** platform.
- 5 Salubrity environment:** health and indoor living quality. The devices have been tested according to the patented **Bio-Safe®** protocol which has verified and certified their ability to reduce contaminants, through laboratory analysis with test chamber (UNI EN 16000) and it is possible to verify their emission potential and through environmental surveys (UNI EN 14412) able to restore the level of air purification reached by them inside the rooms of interest.


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## INNOVATIVE SOLUTIONS


**Cover Technology** Srl and **Jonix** Srl together to provide professional products Made in Italy to prevent and treat the consequences of indoor pollution and for bacteria and viruses. Consulting services and dedicated support.



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 Via Caplà, 3 - Serle (Brescia) - Italy

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 +39 030 69 08 111

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 [info@covertechnology.com](mailto:info@covertechnology.com)

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 [www.covertechnology.com](http://www.covertechnology.com)



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