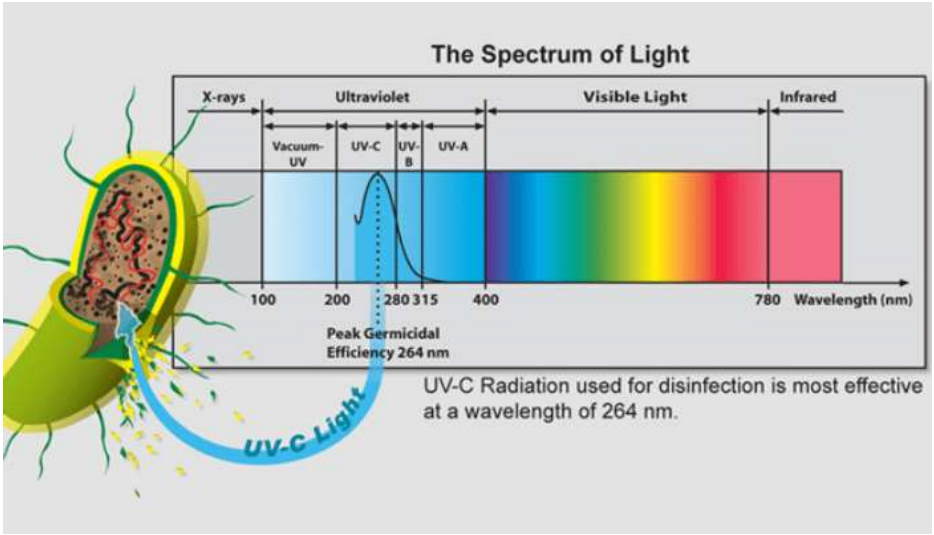
ISO Tech

Steril line

by ISO Italia Group srl

Italian Spa and Beauty equipment

UVC Equipment Steril line Made in Italy by ISOTech



Introduction to UVC Isotech

Iso Italia Group with over 30 years of experience in the UV lamps field presents **Steril line,** its own line of products for disinfection with UVC germicidal lamps.

General information about germicidal lamps

Ultraviolet rays emit a very high energy level light with a wavelength between 200-400 nm. In particular, it has proven scientifically very effective for disinfection, radiation with a wavelength of 254 nm. Over 90% of the total UV radiation emitted is precisely 254 nm. The wavelength of 200-280nm is called UVC. So disinfection using 254nm wavelength is called UVC disinfection. **The 254 nm radiation destroys microorganisms by changing the genetic information contained in their DNA ensuring a 99.99% reduction.**

Safety of UVC germicidal systems

UV-C rays present a hazard to the skin and eyes, that's why direct exposure to the rays should always be avoided.
UV-C provides disinfection without residues of any kind, therefore these systems do not imply the need to eliminate or neutralize dangerous products after disinfection.
UVC germicidal systems are fast, cheap and eco-friendly, since no chemicals are added to the air / water and there are no dangerous or toxic chemicals to be disposed of.

Benefits of UVC germicidal systems

Disinfection times are rapid, with a typical disinfection cycle lasting about 15 minutes (excluding germicidal systems for air). This allows extremely rapid turnover times for the sanitization of environments. Due to its simplicity, UV-C disinfection is extremely easy to use. All surfaces, within a certain distance, will observe a given level of disinfection for a certain period of time, provided that the light is not blocked and can reach the surface. It becomes very easy to plan the use of a UV-C disinfection system when you know the protocols of usage.

Applications of UVC germicidal systems

Our germicidal systems can be widely used in practice, and their application area is constantly growing.
Systems are available for the disinfection of rooms, air, objects and equipment, air conditioning ducts, ambulances and other vehicles, ducts, conveyor belts and many other applications.

The guaranteed effectiveness of UVC systems

In our production department, we know the energy produced by each equipment, calculated by the number and type of lamps used and the function (application) for which they are intended (purification of air, objects, environments). From these technical values we establish the "DOSE" of UVC produced by each equipment (i.e. the energy of the equipment multiplied by the ignition time).
This type of calculations gives us the certainty of germicidal efficiency since at a medical level, all over the world, tables are used that indicate for each bacterium, spores and viruses, the "DOSE" UVC for its elimination.

In building UVC equipment, and in operating indications The concept of "DOSE" is very important because, for each type of microorganism, it is necessary to reach a dose for its elimination. If the DOSE (established in the international tables) is not reached, the microorganism remains alive. The DOSE is measured in Joules and is calculated by multiplying the power of the light exposed in W / m2 (or in µW / cm2) by the number of seconds during which UVC light reaches the target. For example, **if we want to sanitize a surface, and inactivate the flu virus we need to reach 36 Juole, for polio 58 Juole, for E. coli 30 Joule.**

At what Uvc DOSE is COVID-19 inactivated?

To date, the Joule dose to inactivate COVID-19 has not yet been formalized as to obtain the exact data, it is necessary to wait for the technical laboratory times, which should be made official at the end of October. However all the bacteria and viruses tested to date (many hundreds over the years, including coronaviruses) are eliminated by UV disinfection. UVC (or germicidal range), inactive (ie, "kills", "eliminates") at least two other coronaviruses that are the closest relatives of the COVID-19 virus: SARS-CoV and MERS-CoV ("Large-scale preparation of UV-inactivated SARS coronavirus

virions for vaccine antigen," Tsunetsugu-Yokota Y et al. Methods Mol Biol. 2008;454:119-26. doi: 10.1007/978-1-59745-181-9_11.; "Efficacy of an Automated Multiple Emitter Whole-Room Ultraviolet-C Disinfection System Against Coronaviruses MHV and MERS-CoV," Bedell K et al. ICHE 2016 May;37(5):598-9. doi:10.1017/ice.2015.348. Epub 2016 Jan 28.; Focus on Surface Disinfection When Fighting COVID-19"; William A. Rutala, PhD, MPH, CIC, David J. Weber, MD, MPH; Infection Control Today, March 20, 2020 (*https://www.infectioncontroltoday.com/covid-19/focus-surface-disinfection-when-fighting-covid-19*) . However, the condition of effectiveness of UVC light remains linked to the DOSE, i.e. the energy with which the light reaches the target to inactivate it. UVC systems must therefore be designed to ensure the necessary DOSE to inactivate viruses for the environments and applications for which they have been designed.

As an example, an extract from the Virus table (following this link you can find the complete table: https://www.iuvanews.com/stories/pdf/archives/180301_UVSensitivityReview_full.pdf).

UV Dose (mJ / cm2) required to obtain inactivation

		Reduction 90%	Reduction 99%	Reduction 99,9%	
Virus type	**Host**	Log 1	Log 2	Log 3	Scientific references
Adenovirus type 15	A549 cell line (ATCC CCL-185)	40	80	122	Thompson et al. 2003
Adenovirus type 2	A549 cell line	20	45	80	Shin et al. 2005
B40-8 (Phage)	B. Fragilis	11	17	23	Sommer et al. 2001
Bacteriopfage - E. Coli	N/A	2.6	6.6		Light Sources Inc. 2014
Calicivirus canine	MDCK cell line	7	15	22	Husman et al. 2004
Calicivirus feline	CRFK cell line	5	15	23	ston-Enriquez et al. 2003
Coxsackievirus B3	BGM cell line	8	16	24.5	Gerba et al. 2002
Coxsackievirus B5	BGM cell line	9.5	18	27	Gerba et al. 2002
Echovirus I	BGM cell line	8	16.5	25	Gerba et al. 2002
Hepatitis A	HAV/HFS/GBM	5.5	9.8	15	Wiedenmann et al. 1993
Hepatitis A HM175	FRhK-4 cell	5.1	13.7	22	Wilson et al. 1992
Hepatitis A HM175	FRhK-4 cell	4.1	8.2	12.3	Battigelli et al. 1993
Infectious Hepatitis	N/A	5.8	8.0		Light Sources Inc. 2014
Influenza	N/A	3.4	6.6		Light Sources Inc. 2014
MS2 (Phage)	Salmonella typhimurium WG49	16.3	35	57	Nieuwstad and Havelaar
MS2 (Phage)	*E. coli* ATCC 15597	20	42	70	Lazarova and Savoy 2004
MS2 (Phage)	*E. coli* HS(pFamp)R		45	75	Thompson et al. 2003
MS2 ATCC 15977-B1 (Phage)	*E. coli* ATCC 15977–B1	15.9	34	52	Wilson et al. 1992
MS2 NCIMB 10108 (Phage)	*Salmonella typhimurium* WG49	12.1	30.1		Tree et al. 1997
PHI X 174 (Phage)	*E. coli* C3000	2.1	4.2	6.4	Battigelli et al. 1993
PHI X 174 (Phage)	*E. coli* WG 5	3	5	7.5	Sommer et al. 2001
Poliovirus - Poliomyelitis	N/A	3.15	6.6		Light Sources Inc. 2014
Poliovirus 1	BGM cell line	5	11	18	Tree et al. 2005
Poliovirus 1	CaCo2 cell-line (ATCC HTB37)	7	17	28	Thompson et al. 2003

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Cleaning Air T6

Cleaning Air T6 has been designed to limit and eliminate the risks of **aerogenic contamination, i.e. those relating to diseases transmitted by air.**

The use of environmental sterilizers finds an increasingly widespread application to reduce the risk of virus transmission by air: these devices can be used in all environments, since they produce an uninterrupted disinfectant action and prevent the dispersion and distribution of any dangerous pathogens. Hospitals, medical and health facilities around the world have been using these disinfection systems for years and today they are increasingly in demand to sanitize and make much safer, all the environments we frequent, in which we work and live.

Cleaning Air T6 is a universal air purifier UVGI (ultraviolet germicidal irradiation) for the reduction of viral and bacterial load inside the environments in which it is positioned. Traditional cleaning methods are often not sufficient to ensure high levels of hygiene, achievable only through the use of the most incisive technology, among which, one of the most effective is UV-C. In Cleaning Air T6 the UVC performs a constant germicidal action, by eliminating the microbial load in the air and continuously reducing the bacterial load in the environment.

The great advantage of **Cleaning Air T6** is the possibility of treating the air in the environment, 24 hours a day, without any risk and contraindication for the present people. The uninterrupted disinfectant action of the unit, guarantees continuous control of the bacterial load of the room and keeps the air always healthy; on the contrary, an intense but discontinuous disinfection with other systems (for example chemical products) determines a fluctuating level of germs present in the environment.

Cleaning Air T6 is designed to achieve disinfection in a simple, immediate and safe way, without developing heat, without using liquids and chemicals and without contraindications. The air present in the environment sucked into Cleaning Air T6 by a silent fan is channeled into the germicidal chamber of the purifier to be decontaminated by microbes and any chemical contaminants; in addition to the 6 UV-C lamps, Cleaning Air T6 also contains an innovative **HEPA (High-Efficiency Particulate Air) filter** which **captures 99.97% of particles** with a diameter of 0.3 microns, thus filtering allergens as well.

6 x 25 Watt UV-C lamp, Ultraviolet energy 70 µW / cm2 at 1 m / Lamp

Sequential air circuit in a germicidal chamber (emission at 253.7 nm)

Germicidal internal chamber in reflective surfaces with germicidal power amplification

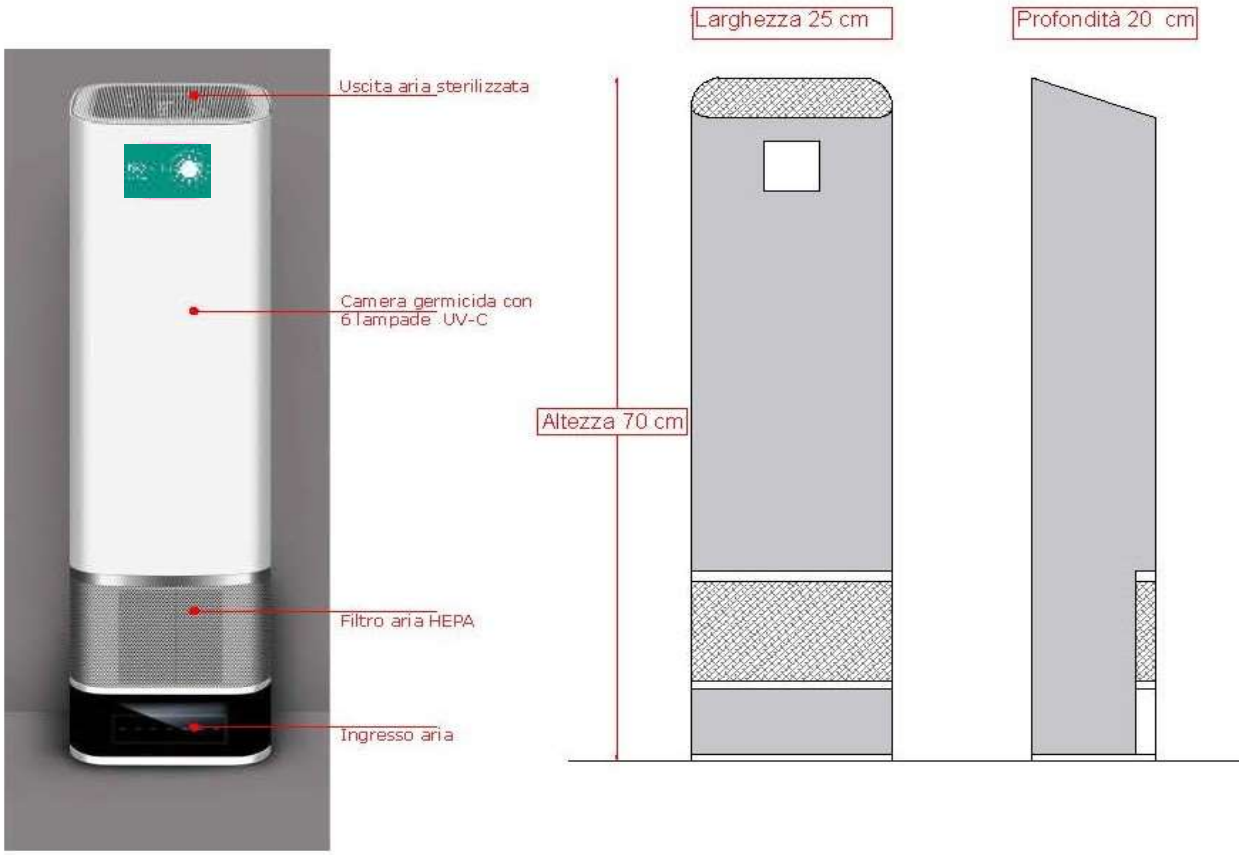
HEPA filter for the elimination of pollutants, inorganics and allergens

Power supply with specific electronic ballast for UV-C lamps

Continuity of treatment 24 / 24h - High UV-C power

Optional Base with wheels and handle.

Cleaning Air T6 purifies 150 m3/h. From the moment the speed is turned on to sanitize the environment in which it is located, it also depends on the size of the environment. Air flows (inputs and outputs of people from the environment) lengthen the sanitization times, in this case is recommended the use of multiple units or Cleaning Air T12.	Room size in square meters	Cubic meters of air inside	Time to sanitize the environment
	16 m²	43,5 m³	18 minutes
	20 m²	54 m³	22 minutes
	40 m²	108 m³	43 minutes
	60 m²	162 m³	65 minutes
	100 m²	270 m³	108 minutes



Cleaning Air T6 is programmable, can be positioned on the wall or on a pedestal with wheels (optional)

Technical characteristics
6 x 25 Watt UV-C lamps
Sequential air circuit in a germicidal chambre
Germicidal internal chamber in reflective surfaces
External body in lacquered and powder coated aluminium
Use in the presence of people
Continuous Operation Mode
HEPA filter for the elimination of pollutants and inorganics
Power supply with electronic ballast for UV-C lamps
Ambient temperature: -10° to + 55° C
Lifespan of the Lamps: 9000 h
MADE IN ITALY

Electrical characteristics
Voltage 230 V ~ ± 10%
Frequency 50 Hz
Absorption Max 250 Watt

Additional materials:
1 Poster
Plastic Table Tent
User manual
CE mark

Cleaning AirT12

Cleaning AirT12 has been designed to limit and eliminate the risks of **aerogenic contamination, i.e. those relating to diseases transmitted by air.**
The use of environmental sterilizers finds an increasingly widespread application to reduce the risk of virus transmission by air: these devices can be used in all environments, since they produce an uninterrupted disinfectant action and prevent the dispersion and distribution of any dangerous pathogens. Hospitals, medical and health facilities around the world have been using these disinfection systems for years and today they are increasingly in demand to sanitize and make much safer, all the environments we frequent, in which we work and live.
Cleaning Air T12 it is a universal TRANSPORTABLE air purifier UVGI (ultraviolet germicidal irradiation) for the reduction of the viral and bacterial load inside the environments in which it is positioned. Traditional cleaning methods are often not sufficient to ensure high levels of hygiene, achievable only through the use of the most incisive technology, among which, one of the most effective is UV-C. In Cleaning Air T12 the UVC performs a constant germicidal action, by eliminating the microbial load in the air and continuously reducing the bacterial load in the environment. The great advantage of Cleaning Air T12 is the possibility of treating the air in the environment, **24 hours a day**, without any risk and no contraindication for people inside. Its portability makes it particularly useful for those who need to sanitize large rooms, or areas that are not frequented constantly: hotel or home rooms, gym halls, clinics.
The uninterrupted disinfectant action of the unit, guarantees continuous control of the bacterial load of the room and keeps the air always healthy; on the contrary, an intense but discontinuous disinfection with other systems (for example chemical products) determines a fluctuating level of germs present in the environment.
leaningair T12 is designed to achieve disinfection in a simple, immediate and safe way, without developing heat, without using liquids and chemicals and without contraindications. The air present in the environment sucked into Cleaning Air T12 by a silent fan is channeled into the germicidal chamber of the purifier to be decontaminated by microbes and any chemical contaminants; in addition to the 12 UV-C lamps, Cleaning Air T12 also contains an innovative **HEPA** (High-Efficiency Particulate Air) **filter that captures 99.97% of the particles with a diameter of 0.3 microns**, thus filtering allergens as well.

12 x 25 Watt UV-C lamp, Ultraviolet energy 70 µW / cm2 at 1 m / Lamp

Sequential air circuit in a germicidal chamber (emission at 253,7 nm)

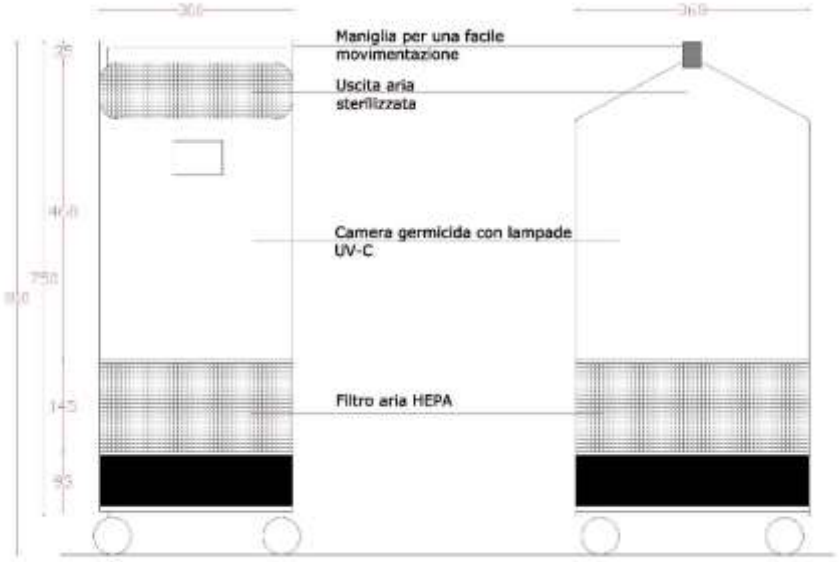
Germicidal internal chamber in reflective surfaces with germicidal power amplification

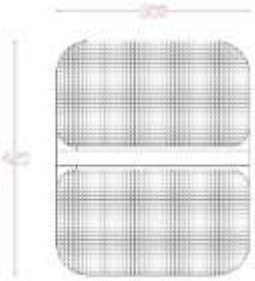
HEPA filter for the elimination of pollutants, inorganics and allergens

Power supply with specific electronic ballast for UV-C lamps

Continuity of treatment 24 / 24h - High UV-C power

Cleaning Air T12 purifies 300 m3 / h. From the moment the speed is turned on to sanitize the environment in which it is located, it also depends on the size. Air flows (inlets and outlets of people from the environment) lengthen the sanitization times and suggest the use of multiple units.	Room size in square meters	Cubic meters of air inside	Time to sanitize the environment
	20 m²	54 m³	11 minutes
	40 m²	108 m³	22 minutes
	60 m²	162 m³	32 minutes
	100 m²	270 m³	54 minutes





Cleaning Air T12 is programmable, positioned on trolley it can be easily moved in different environments

Technical characteristics

12 x 25 Watt UV-C lamps
Sequential air circuit in a germicidal chambre
Germicidal internal chamber in reflective surfaces
External body in lacquered and powder coated aluminium
Use in the presence of people
Continuous Operation Mode
HEPA filter for the elimination of pollutants and inorganics
Power supply with electronic ballast for UV-C lamps
Ambient temperature: -10° to + 55° C
Lifespan of the Lamps: 9000 h
MADE IN ITALY

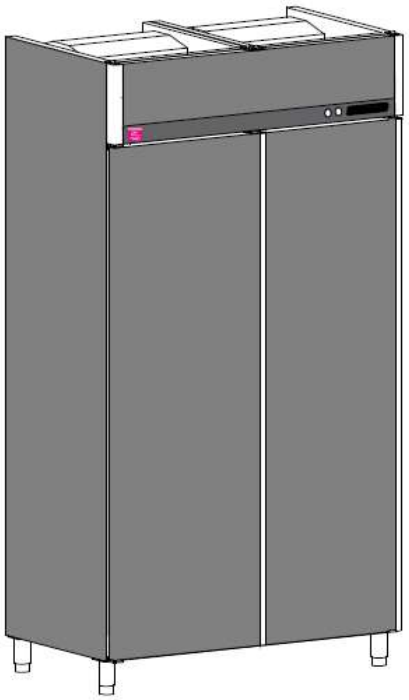
Electrical characteristics

Voltage 230 V ~ ± 10%
Frequency 50 Hz
Absorption Max 500 Watt

Additional materials:

1 Poster
Plastic Table Tent
User manual
CE mark

Steril Cabinet



Steril Cabinet is a special germicidal cabinet, designed by Isotech to meet the ever-growing needs for disinfection in professional and healthcare areas. Spores, viruses and bacteria can be transported not only by air but by objects and tools of common or daily use. With a few minutes passage inside **Steril Cabinet** it is possible to obtain the disinfection of the equipment and tools and all that is positioned inside, in a simple, immediate and safe way, without developing heat, without using liquid and without the slightest contraindication.

Steril Cabinet is a cabinet divided into three floors from stainless steel grids equipped with 9 UVC lamps, 3 on each floor. The lamps are positioned so as to radiate all the surfaces to be disinfected without shaded areas. **The internal surfaces are coated in reflective aluminum, easy to clean and designed to reflect the emission of germicidal UVC** by increasing the power of the radiation, and considerably lowering the exposure times necessary to achieve the disinfection degree of 99.9%.

The use of **Steril Cabinet** is indicated not only in the health sector, but in all those circumstances in which you want to create and maintain the sterility of instruments and objects.
With Steril Cabinet we obtain the maximum level of disinfection, in just 10 minutes of operation we achieve 99% reduction of bacteria on the contents of the cabinet. The same results are obtainable only with products and chemical compounds, dangerous for health and harmful for the environment, as well as expensive and difficult to use.
The cabinet has a security system that provides for the automatic shutdown of the lamps when it is opened.

9 x 25 Watt UV-C lamp, Ultraviolet energy 70 µW / cm2 at 1 m / Lamp

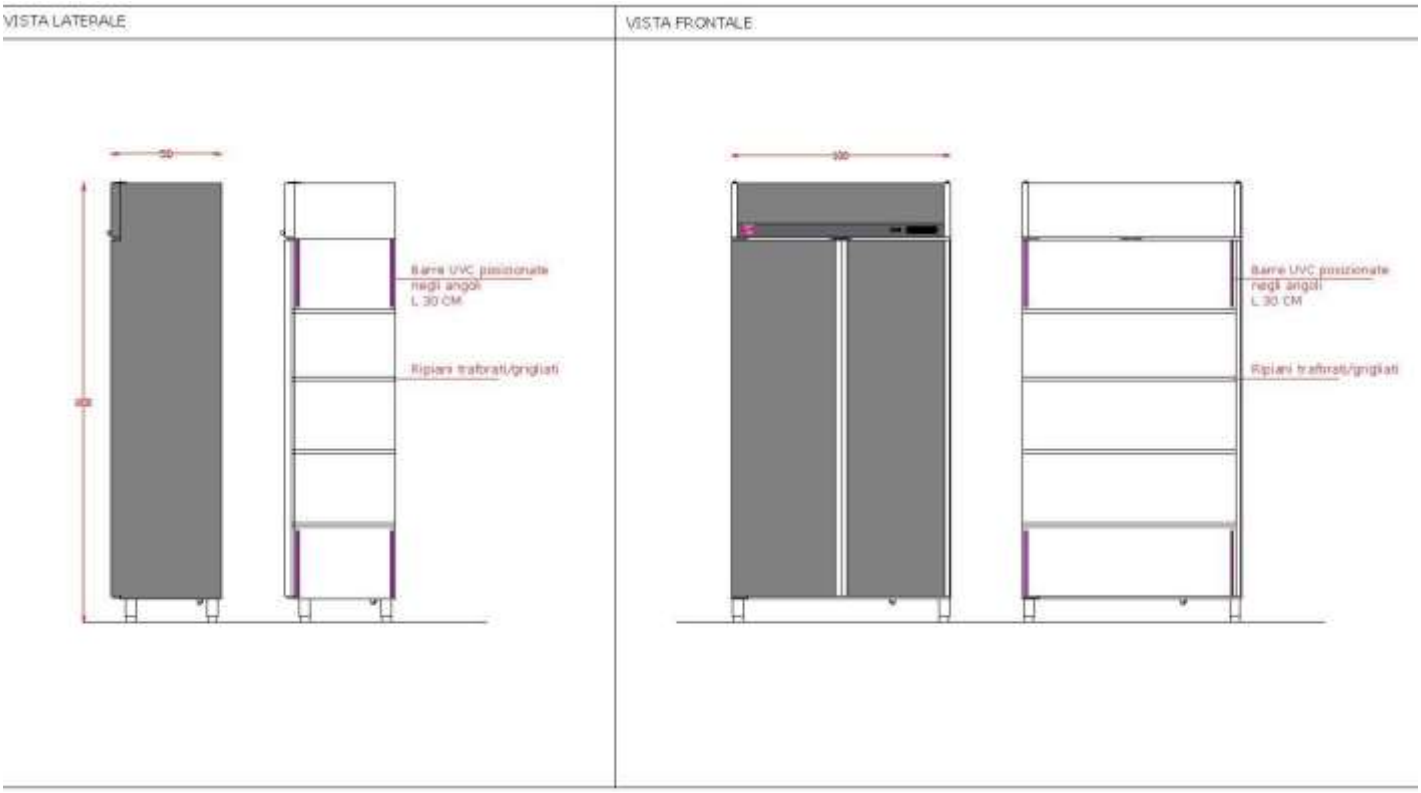
Germicidal internal chamber in reflective surfaces with germicidal power amplification

Stainless steel grids and hooks to limit shaded areas

Power supply with electronic ballast for UV-C lamps

Control timer

Continuity of treatment 24 / 24h - High UV-C power



Steril Cabinet 100 can be requested in different sizes and colors.

Technical characteristics	**Electrical characteristics**
9 x 25 Watt UV-C lamps, Germicidal internal chamber in reflective surfaces External body in lacquered and powder coated aluminium External body in 430 steel Control timer Continuous Operation Mode 24 / 24h - Power supply with electronic ballast for UV-C lamps Ambient temperature: -10° to + 55° C Lifespan of the Lamps: 9000 h MADE IN ITALY	Voltage 230 V ~ ± 10% Frequency 50 Hz Absorption Max 250 Watt **Additional materials:** 1 Poster Plastic Table Tent User manual CE mark

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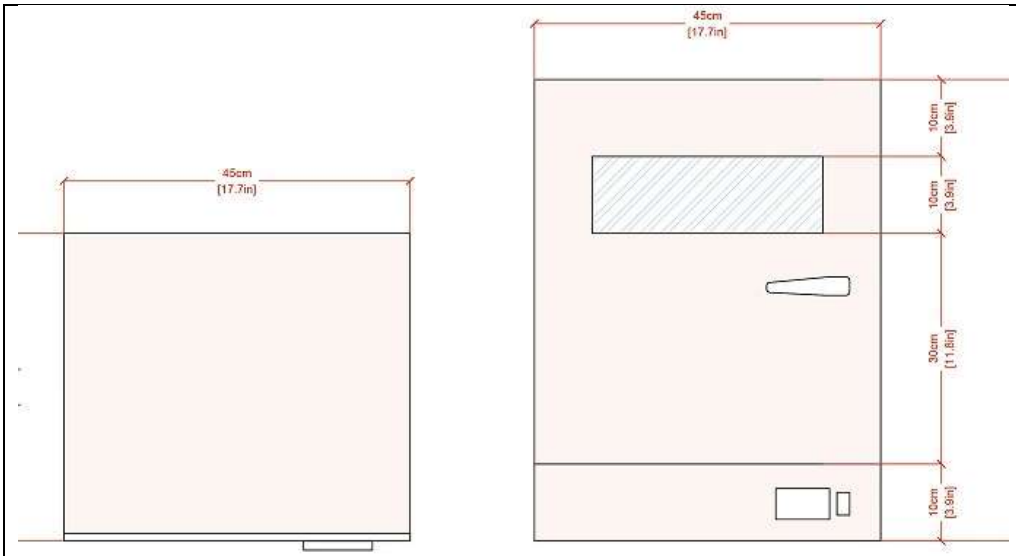
Steril Box

Steril Box is a special germicidal container, designed by Isotech to meet the ever-growing needs for disinfection in professional and healthcare areas. Positioned on any shelf, it responds to the need to sanitize commonly used objects and tools in a few minutes. It is equipped with 2x25 Watt UVC lapades, with energy of 90 µW / cm at 0.5 cm. The lamps are positioned so as to radiate all the surfaces to be disinfected without shaded areas and to develop a UV dose of 450 Joules in 5 minutes, capable of ensuring the inactivation of any virus or betterio.

Steril Box is made entirely of 403 steel, has an easy-to-operate timed system and the safety devices provided for by current regulations which guarantee that it will switch off if it opens during the disinfection cycle. In addition, a small glass insert allows you to see when the box is in operation to avoid accidental opening.

The particularly reflective internal surfaces increase the efficiency of the germicidal lamps and allow easy cleaning of the Box. The Steril Box is divided by steel grids, removable to organize the interior according to your needs.

The use of **Steril box** is indicated not only in the health sector, but in all those circumstances in which you want to create and maintain the sterility of instruments and objects.

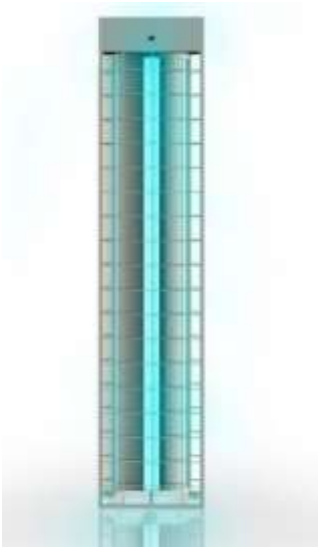


Steril Box can be requested in different sizes and colors.

Technical features	**Electrical characteristics**
2 x 25 Watt UV-C lamps, Germicidal internal chamber in reflective surfaces Body entirely in 430 steel Timer On Off Mode - Operation mode start and stop timer Power supply with electronic ballast for UVC lamps Ambient temperature: -10° to + 55° C Lifespan of the Lamps: 9000 h MADE IN ITALY	Voltage 230 V ~ ± 10% Frequency 50 Hz Absorption Max 250 Watt **Additional materials:** User manual CE mark

UVC Corner

UVC Corner is the modular sterilization system that Isotech produces for sanitizing rooms.



UVC Corner is made of reflective steel 430 (high efficiency parabola) to be easily positioned in the corners of the rooms or on the ceiling as a normal ceiling light. Each UVC Corner mounts a 55 Watt UVC lamp with a T8 diameter, with a 2-pin double terminal. The installed lamp has an average UVC germicidal band of 253.7 nm with an emission of 1.7watt / m2 at a meter distance. Each **UVC Corner** is equipped with a safety sensor that activates the immediate shutdown of the system upon detection of presence in the UVC emission coverage area.

UVC Corner modules cannot be put into operation in the presence of people and must therefore be used when the rooms are empty. Each UVC Corner in the room is connected to a time control, positioned outside the room. The operator can activate the UVC System consisting of all the modules positioned inside the room (one or more UVC Corner) only from the outside, by operating the timer. At the end of the sanitation cycle the UVC Corners will automatically turn off. When the UVC Corners are in operation, a special light signal positioned at the entrance to the room warns of the sanitization process in progress. The safety control unit switches off all UV corners in case of entry during sanitation..

Germicidal lamp 55 Watt, Ultraviolet energy 1,7 µW / cm2 at 1 m /

Attendance sensor included

Reflective surfaces (parabolas) with germicidal power amplification

System and safety control units

Power supply with electronic ballast for UV-C lamps

Control timer -

The number of CORNER UVC to sanitize an environment and the time can be calculated from the following table

Inactivation of 99% of the viruses is achieved with a UVC dose of 90 Joules. To reach this dose, it is advisable to position the UVC corner according to the following table and using the times indicated:

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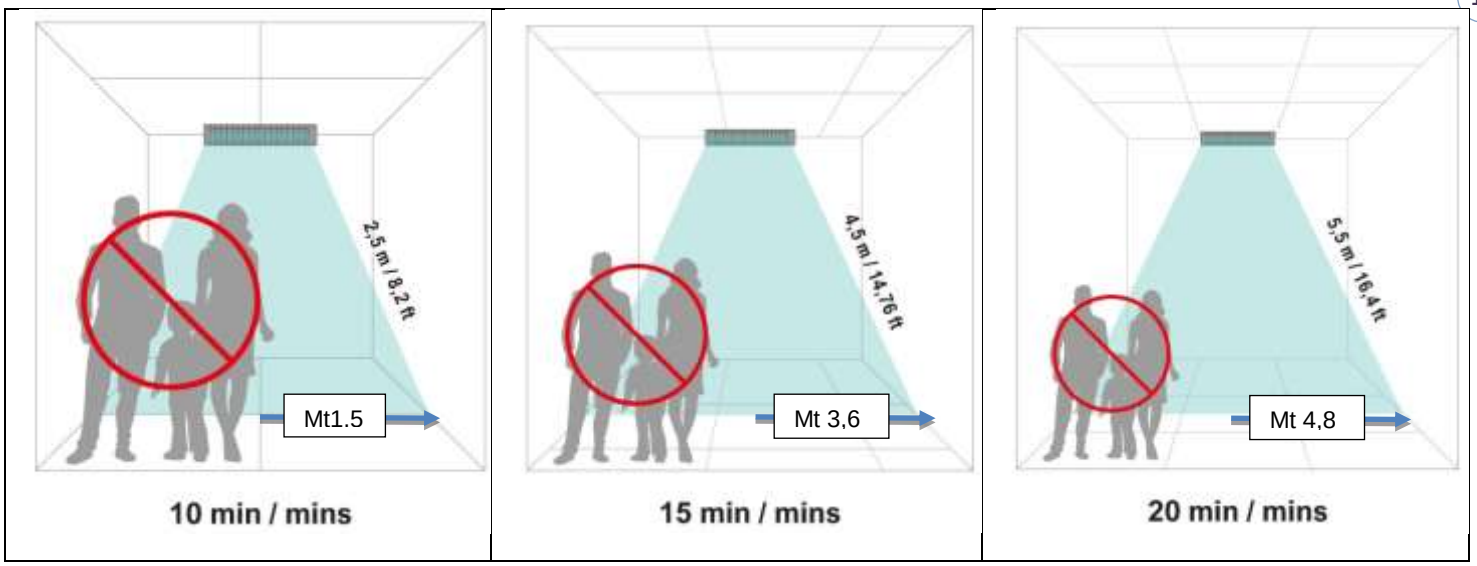
Watt/mq	Maximum distance from the UVC CORNER	Dose in 10 minutes	Dose in 15 minutes	Dose in 20 minutes
at 3 meters = 0.25	3 meters	150	225	300
at 4,5 meters = 0,105	4,5 meters	63	94,5	126
at 6 meters = 0,066	6 meters	40	62,5	90

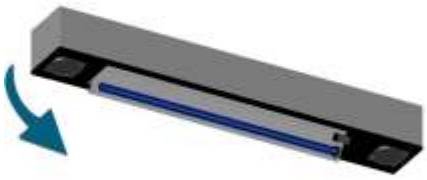


Technical characteristics of the UVC corner	Electrical Features Corner UVC
1 x 55 Watt UV-C lamp, Reflective parabola Corner or ceiling mounting External body in 430 reflective steel Connectable in series Continuity of treatment 24 / 24h - Operation mode on off Power supply with electronic ballast for UV-C lamps Ambient temperature: -10° to + 55° C Lifespan of the Lamps: 9000 h MADE IN ITALY	Voltage 230 V ~ ± 10% Frequency 50 Hz Absorption Max 25 Watt **Additional materials:** User manual CE mark

UVC TWIST® Air and Surface Protection

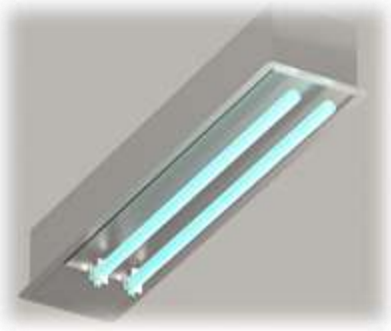
UVC TWIST®

With **UVC TWIST®** your environment is completely sanitized. UVC TWIST® is a UWC lamp system designed and **patented by Isotech**, which sanitizes both air and surfaces depending on the need and the moment.



Two powerful 55 Watt UVC lamps with a T8 diameter are installed on the UVC TWIST® with a 2-pin double terminal. The installed lamps have an average UVC germicidal band of 253.7 nm with an emission of 1.7 watts/m2 at one meter distance. When the lamps are turned towards the inside of the channel that contains them, they act by sanitizing the air, when the lamps are turned towards the outside of the channel they radiate the environment towards which they are turned, sanitizing it. The air sanitization is activated continuously and in the presence of people in the environment, thus ensuring maximum reduction the risk of breathing viruses or bacteria. With an empty environment, ie without people, the "Clean Surface" command can be activated, the lamps facing the channel turn 180 degrees and radiate the surface towards which they are facing, discharging their UV dose for inactivation of viruses by sanitizing surfaces and the whole environment.

The controls for choosing the "Clean Air" or "Clean Surface " function are located outside the room. In the presence of people entering during the "Clening Surface" function, a presence sensor switches off the lamps which, by turning 180, automatically return to the position that sees them facing the inside of the sanitizing chamber. UVC TWIST® has separate controls. The "Cleaning Air" air sanitization can be programmed while the "Cleaning Surface" function can only be activated manually through a timer.



UVC TWIST® can be installed individually or in series (multiple units connected within the same environment).

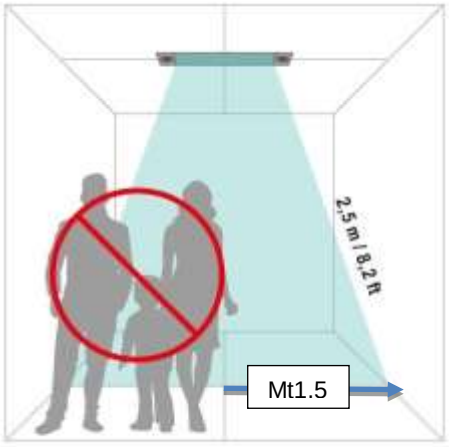
To facilitate installation, the UVC TWIST® is equipped with hooks (to be hung from the ceiling) and flanges (to be attached to the plasterboard or to the wall). A rotation "closure" system prevents UV-C light from escaping when the lamps UVCs are facing the germicidal chamber.

Inactivation of 99% of the viruses is achieved with a UVC dose of 90 Joules. To reach this dose, it is advisable to position the UVC corner according to the following table and using the times indicated:

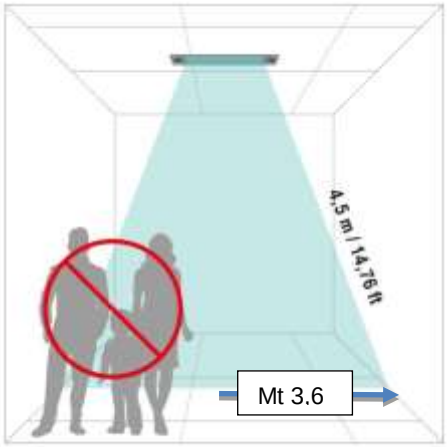
Maximum distance from Twist UVC	Dose in 10 minutes	Dose in 15 minutes	Dose in 20 minutes
3 meters	300	450	600
4,5 meters	126	180	250
6,5 meters	80	120	170

Air sanitization

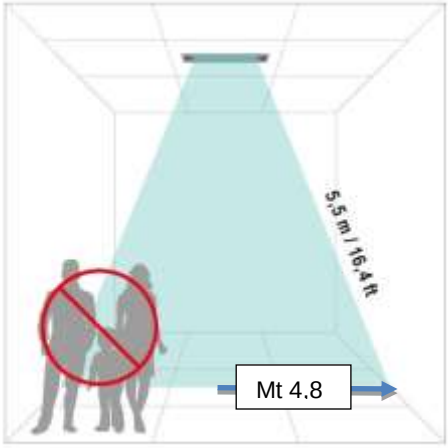
UVC TWIST® purifies 80 m3/h. From the moment it is turned on, the speed to sanitize the environment in which it is located depends on the size of the room. Air flows (inputs and outputs of people from the environment) lengthen the sanitization times.	Room size in square meters	Cubic meters of air inside	Time to sanitize the environment
	16m²	43,5 m³	32 minutes
	20 m²	54 m³	40 minutes
	40 m²	108 m³	80 minutes



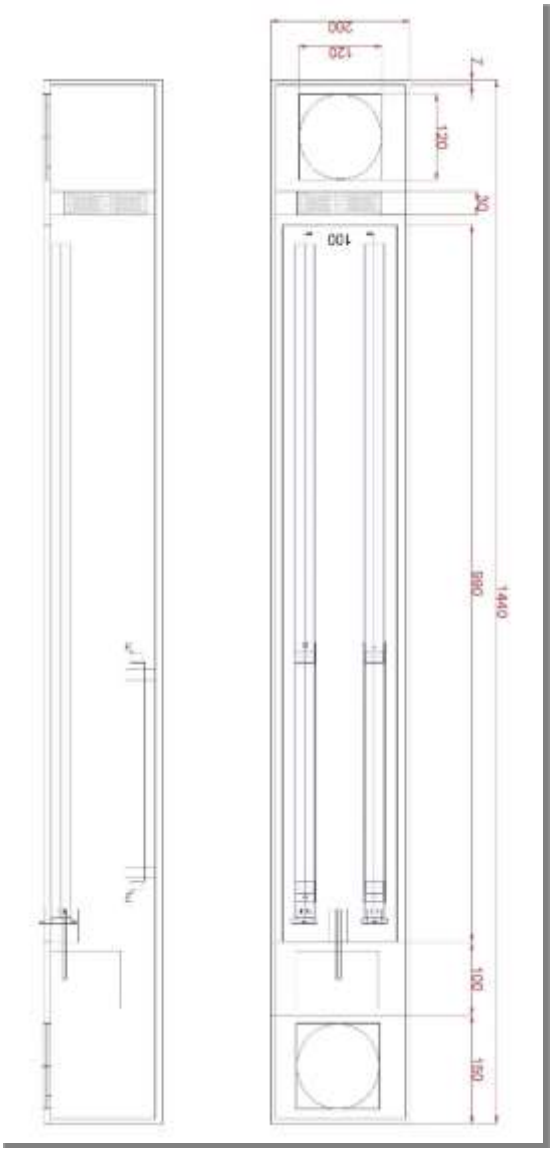
10 min / mins

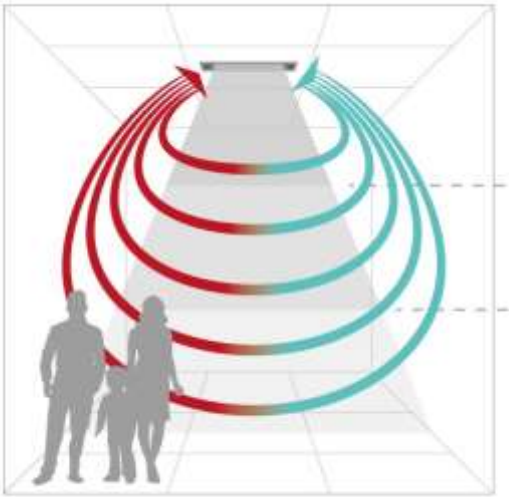


15 min / mins



20 min / mins





Sterilizzazione aria /Air cleaning

ISO Italia Group srl

Italian Spa and Beauty Equipment

UVC Hunter

UVC Hunter is the sterilization system on wheels that Isotech produces for sanitizing rooms.

6x 55 Watt UVC lamps with a T8 diameter, with a 2-pin double terminal are installed on the UVC Hunter. Each lamp has an average UVC germicidal band of 253.7 nm with an emission of 1.7 watts / m2 at a meter distance. The system is capable of sanitizing rooms and surfaces up to 30 m2 in 15 minutes.

The base, made of metal, rests on pivoting wheels equipped with a brake and contains the electronic and safety part (presence sensors). The 6 lamps are mounted vertically, alternately inclined, to better direct the germicidal emission. The central column behind the lamps is made of reflective 430 steel, with a parabola effect to maximize energy.

UVC Hunter, like all surface sanitization systems, can only be operated in empty environments, without people. The timer and switch-on are positioned in the upper part of the structure, when activated, it allows the operator the time(programmable) to leave the room, before switching on. When UVC Hunter is running, a special light signal, positioned on the central column, warns of the sanitization process in progress. In the case of entry of people during the sanitization process, the security system, connected with the presence detectors, turns off the equipment. At the end of the sanitation cycle, **UVC Hunter** switches off automatically. **We suggest positioning UVC Hunter at a distance of no more than 4 meters from each perimeter wall (preferably in the center of the environment you want to sanitize) and leaving it at least one meter away from the closest object (so as not to create an area of shadow).**

UVC Hunter is particularly suitable for facilities open to the public that need to sanitize multiple rooms daily: hotels, shops, beauty centers, spas, polyclinics, hospital rooms, retirement homes and etc.

6 UVC-C 55 Watt lamps, Ultraviolet energy 210 µW / cm2 at 1 m / Lamp

Reflective surfaces (parabolas) with germicidal power amplification

Timer with delayed start

Sensors security person

Non-marking wheels with brake for correct positioning

The efficiency of UVC Hunter to sanitize an environment and the sanitization time are calculated from the following table

Power of the 6 55 Watt lamps calculated from the point where UVC Hunter is positioned

Inactivation of 99% of the viruses is achieved with a UVC dose of 90 Joules. To reach this dose, it is advisable to position the UVC corner according to the following table and using the times indicated:

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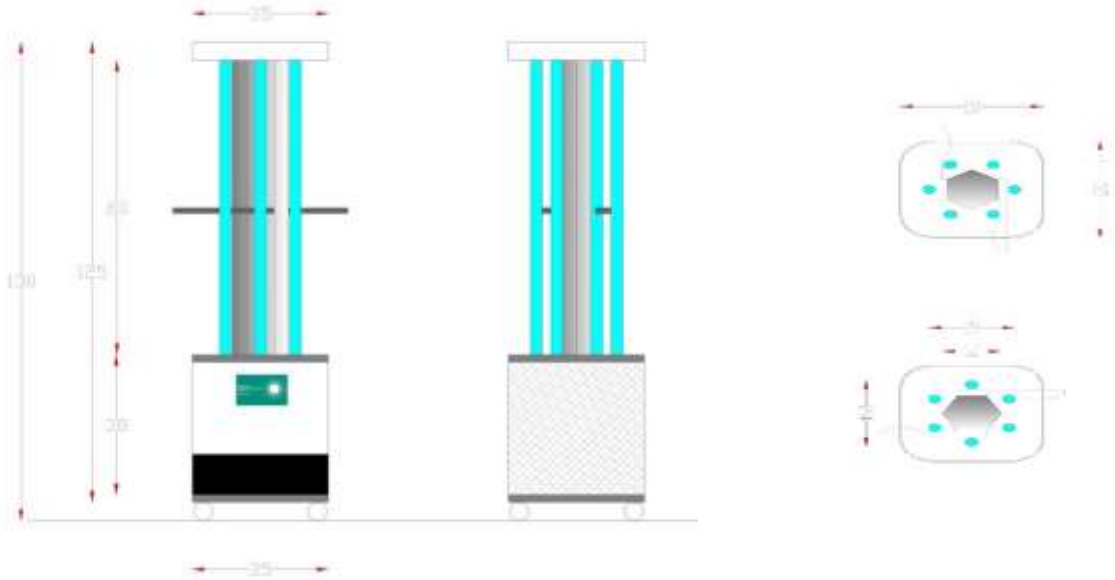
Watt/mq /Lamp	Maximum distance from UVC Hunter	Dose in 10 minutes	Dose in 15 minutes	Dose in 20 minutes
at 2,5 meters = 0,25	2,5 meters	300	450	300
at 4,5 meters = 0,105	4,5 meters	126	188	252
at 5,5 meters = 0,06	5,5 meters	69	98	130

For environments with larger dimensions we suggest performing two sanitization cycles, ideally dividing the area into several parts and moving UVC Hunter to the center of each.



Technical features
6x55 Watt UV-C lamps,
Support column in reflective surfaces
External body in 430 steel
Control timer with delayed start
Safety shutdown with 5 sensors in person
On-off operation -
Power supply with electronic ballast for UV-C lamps
Ambient temperature: -10° to + 55° C
Lifespan of the Lamps: 9000 h
MADE IN ITALY

Electrical characteristics
Voltage 230 V ~ ± 10%
Frequency 50 Hz
Absorption Max 450 Watt

Additional materials:
1 Poster
Plastic Table Tent
User manual
CE mark

Cleaning Air T1000

Cleaning Air T 1000 is the steril line modular sterilization system for large spaces.

Its ability to sanitize bacteria and mold from viruses, an air quantity of 1000 m³ per hour, makes it particularly suitable for very large environments, from 100 to 500 m², frequented by many people.

Cleaning Air T 1000 is made of reflective 430 steel, with a cylindrical shape and contains 8 UVC lamps of 55 Watt each with an emission of 30 watts / m2. The set of lamps positioned on the two meters of length of the T1000 guarantees a dose of 90 Joules capable of inactivating 90% of the viruses and 100% of spores and bacteria in 1000 m³ of air per hour.

Cleaning Air T 1000 is safe, the lamps are closed inside the cylinder where the air passes and not visible from the outside, it can work continuously during the public presence hours, it is not noisy and it is easily controlled and programmable by a control unit positioned on the wall.

Cleaning Air T 1000 produces an uninterrupted disinfectant action reducing the risk of virus transmission by air and preventing the dispersion and distribution of any other dangerous pathogens. Protect your audience, your guests, your employees.

Capacity	Pipe section	Air speed	UVC dose on air flow
1000 m³ /h	Ø = 47 cm	1,6 m³/sec	140 Joule(sec)

Technical features Cleaning Air T 1000

430 steel tube with anti-reflective flares
Internal reflective germicidal chamber
Ventilated box for electronic control containment
Steel cables for ceiling fixing and suspension
8x55 Watt UV-C lamps,
Control timer with delayed start
Safety shutdown with 5 sensors in person
Continuity of treatment 24 / 24h - Operation mode continuous
Power supply with electronic ballast for UV-C lamps
Ambient temperature: -10° to + 55° C
Lifespan of the Lamps: 9000 h
MADE IN ITALY

Electrical characteristics

Voltage 230 V ~ ± 10%
Frequency 50 Hz
Absorption Max 450 Watt

Additional materials:

1 Poster
Plastic Table Tent
User manual
CE mark

Cleaning Air MOD is the steril line modular sterilization system applicable to large plants.

The system designed by Isotech consists of a telescopic support (in all sizes, both in length and in width) on which a number of UVC lamps calculated to sterilize the air inside the duct in which they are located are installed.

To ensure correct sanitization, a calculation is applied on the air volume of the duct and on the number of lamps to be installed, to reach the UVC dose sufficient to deactivate the viruses. In ventilation channels, due to the speed of the air, the efficiency of the lamps (the UVC irradiance in Watts / m^2) is reduced by 30%, therefore the calculation of applied energy (the number of lamps) takes this into account functional factor.

In order to install Cleaning Air MOD, **the ducting must be reachable and inspectable at the point provided for its installation.**

The installation of Cleaning Air MOD is particularly suitable **for systems with air recirculation**. In this type of system, sanitization takes on a particularly important value.

To get a quote for Cleaning Air MOD it is necessary to know the section of the air tube (or channel) and the flow rate (expressed in cubic meters / hour). From these values it is possible to derive the m^3 / sec and deliver the number and power of the UVC lamps to be installed in order to obtain the DOSE necessary for virus inactivation (≥90 Joules).

Examples for obtaining 90 Joules on the passage of 2 meters with 55 Watt lamps.

Capacity	Pipe section	Air speed	UVC dose on air flow
800 m^3 /h	☐= 50 cm	0.8 m^3/sec	4
1000 m^3 /h	Ø = 47 cm	1,6 m^3/sec	8 on two meters
1500 m^3 /h	Ø = 50 cm	2,12 m^3/sec	12 on two meters