

BIO MADE IN ITALY TECHNOLOGY INERTIZER

SANITIZING SYSTEMS FOR THE CUSTODY OF WASTE

AND THE CLEANING OF OBJECTS AND GOODS

FOR DOMESTIC, PROFESSIONAL AND INDUSTRIAL USE





The ONE and ONLY devices suitable for the civil and industrial context that aim to:



Keep potentially contaminated or biologically active waste, ensure safe disposal and the healthiness of work and public environments.



Cleaning and sanitizing objects, packages and goods placed on pal-

SAFE AND CERTIFIED TECHNOLOGY

The BIO INERTIZERS exploit a safe and certified technology.

The germicidal ultraviolet radiation is a known sterilization method that uses ultraviolet light at the UV-C wavelength, which modifies the DNA or RNA of microorganisms and therefore prevents them from reproducing or being harmful. It is used in various applications, such as the disinfection of food, water and air.

Equally known is ozone as an energetic oxidant. Thanks to its power it is used as a disinfectant, deodorant, bactericide and sterilizer, in general for the disinfection of water, in the food and pharmaceutical fields, for the sanitization of the air in environments and in air conditioning and ventilation systems, in medicine in the treatment of bacterial or fungal infections.

The combination of ultraviolet rays (UVC) and ozone allows a high disinfection of viruses and bacteria, reaching even the innermost and shaded parts, which are not irradiates by UV rays.

The effectiveness of this technology is also reported in the Covid-19 Report of Italian Institute of Health - n. 25/2020, as well as attested by various scientific studies.

In our systems where it is not possible to guarantee sanitization through ozone and UVC, we intervene with the temperature treatment, always respecting the regulations relating to the processes of sanitization, pasteurization, and sterilization.

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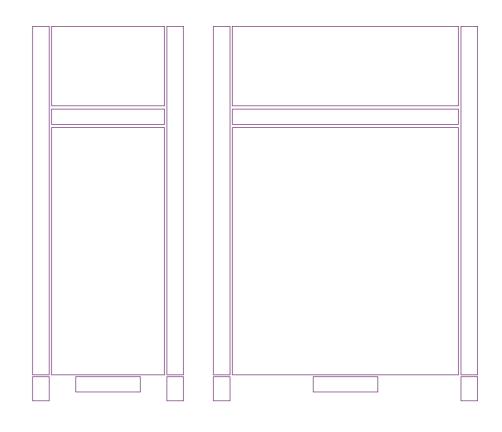


WASTE SANITIZATION

KOSMOS 1

KOSMOS 2

"The waste keeper"



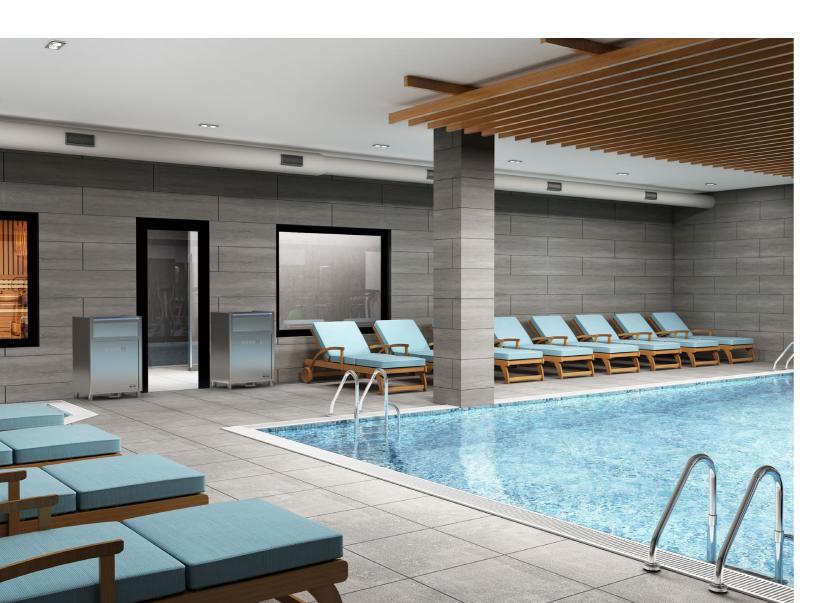
KOSMOS®

KOSMOS® is the FIRST SANITIZING BIN that thanks to a **combined uvc and ozone process allows** a **disinfection of virus and bacteria and the inertization of smells and molds** reaching even the innermost and shaded waste parts.

KOSMOS® can be used for **TNT protective devices disposal**, such as facial filtering devices, overshoes, caps and gloves, or **any type of compostable, sorted or unsorted waste** that may have been contaminated or is biologically active, such as containers or packaging for drinks or food, nappies (inside nursery schools, rest areas), food (inside canteen, fast foods, restaurants).

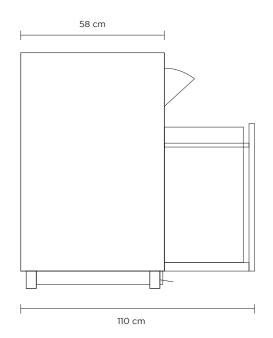
KOSMOS® guarantees that waste is **correctly disposed**, that **it is not accidentally reused**, that **it is not dispersed in the environment**, that **there is no proliferation of molds, viruses, bacteria, smells inside the collection bags** and therefore that the health of the storage and disposal places is maintained.

Entirely built in stainless steel, KOSMOS® can contain **one or two garbage bags each of 110lt**. It has a maximum consumption of 50W/h and a 230 Vac power supply.





85 cm 51 cm







Using KOSMOS® is simple and intuitive: the user can open KO-SMOS® with a pedal and without touching any part of the machine, he can throw up to two types of waste inside it, such as, for example, indifferentiable or differentiable (including TNT protective devices, paper, plastic).

KOSMOS® contains one or two collection bags, each of 110Lt, therefore it is possible to differentiate two types of waste.

Releasing the pedal, KOSMOS® closes and starts the inerting cycle without the need for any type of operation by the user.



In a completely automatic way, the waste is inerted with a cycle regulated by a timer through the combined action of **UV-C rays and ozone** and stored in two collection bags, each of 110Lt.

The combination of ultraviolet rays (UVC) and ozone allows a high disinfection of viruses and bacteria, reaching even the innermost and shaded parts, which are not irradiated by UV rays.

The effectiveness of this technology is also reported in the Co-vid-19 Report - n. 25/2020 issued by the Italian Istituto Superiore di Sanità, as well as attested by various scientific studies.

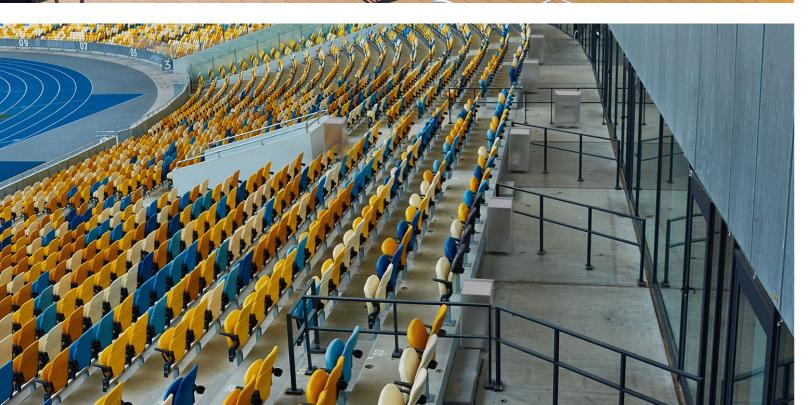


Once the collection bags have been filled, it will now be possible to open the lower door, closed with a safety key, and to extract the garbage bags, close them and confer them.

Thanks to KOSMOS® you can be sure that potentially contaminated waste (masks, gloves, bottles of water, take-away food packaging) are disposed of correctly, that they are not accidentally reused, that they are not dispersed in the environment, that there is no proliferation of molds, viruses, bacteria, smells inside the collection bags and therefore that the health of the storage and disposal places is maintained.





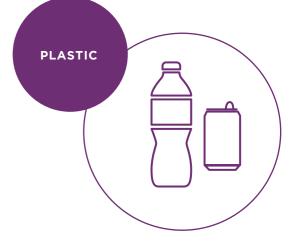


WASTE THAT CAN BE COLLECTED











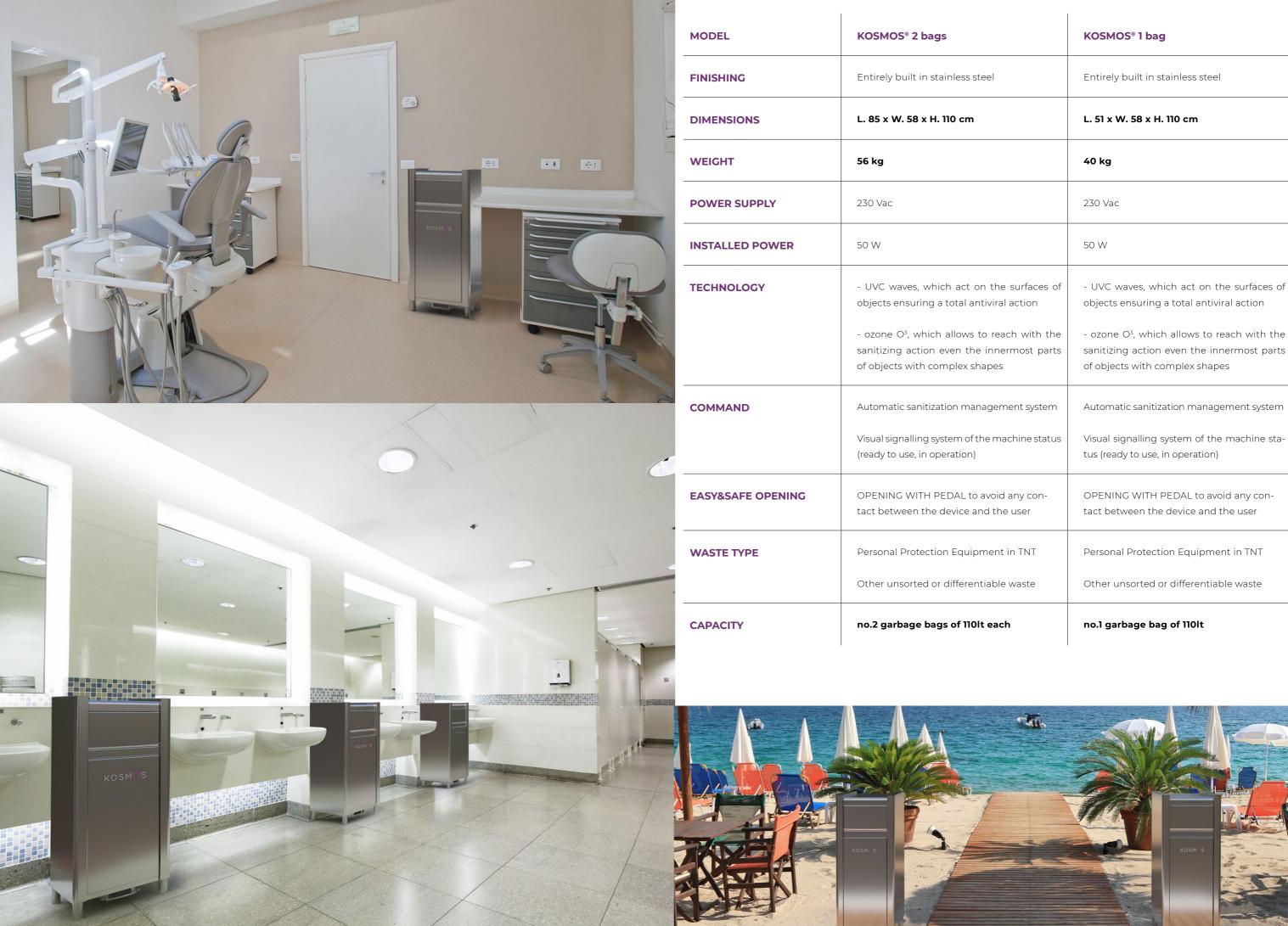


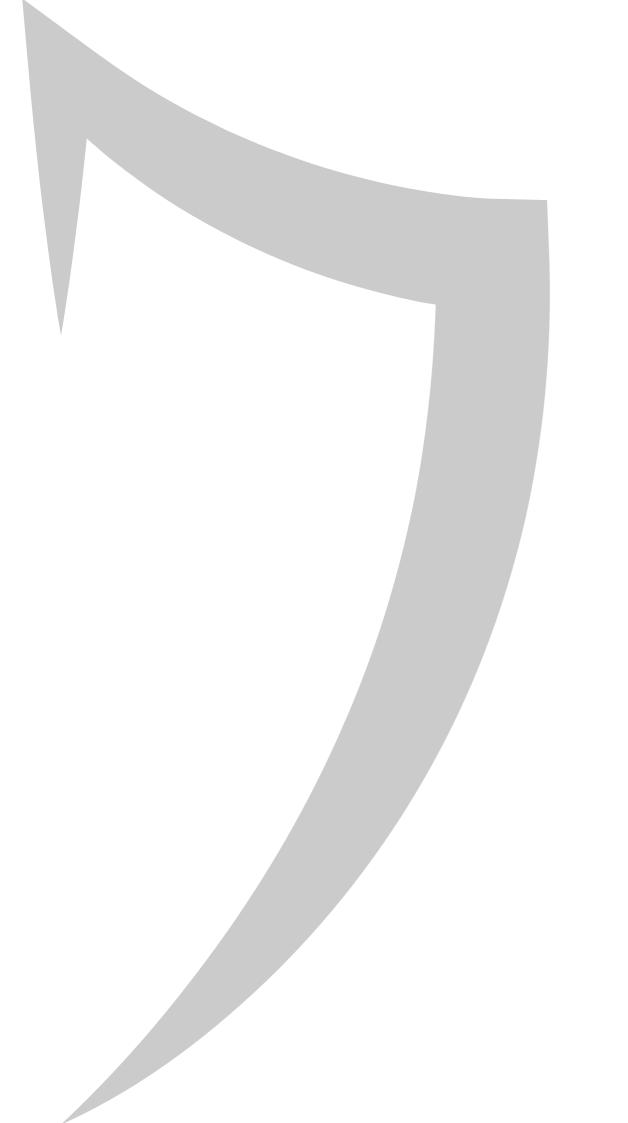


HOW TO USE THE KOSMOS BIO INERTIZERS



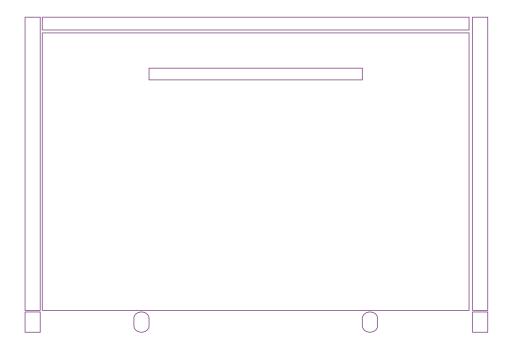
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WASTE SANITIZATION

SUPERBIN
"Bin of bins"



SUPERBIN

SUPERBIN is the FIRST and ONLY SANITIZING BIN for BINS OR RUBBISH BAGS that thanks to a **UVC** and ozone sanitizing process allows the disinfection of viruses and bacteria and the abatment of odors and molds, reaching even the innermost parts of each type of waste. SUPERBIN in fact can be used both for the disposal of protective devices in TNT (masks, gloves, caps, COVID-19 waste) and for any type of compostable, sorted or unsorted waste that may have been contaminated, such as containers, packaging for drinks, food, diapers.

SUPERBIN guarantees that there is no proliferation of molds, viruses, bacteria, odors inside the bin/collection bag and that the waste is therefore deodorized, thus maintaining the healthiness of the places of accumulation and disposal.

SUPERBIN is also suitable for outdoor installation.

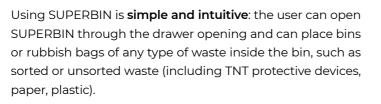


MODEL	SUPERBIN
FINISHING	Entirely built in stainless steel
DIMENSIONS	L. 120 x W. 70 x H.100 cm
POWER SUPPLY	230 Vac
INSTALLED POWER	100 W
TECHNOLOGY	- UVC waves, which act on the surfaces of objects ensuring a total antiviral action
	- Ozone O ³ , which allows to reach with the sanitizing action even the innermost parts of objects with complex shapes
COMMAND	Automatic sanitization management system
	Visual signalling system of the machine status
EASY&SAFE OPENING	DRAWER OPENING
WASTE TYPE	Sorted or unsorted waste
	Bins or bags of different sizes
CAPACITY	700 Lt



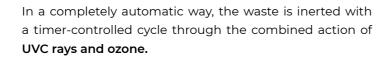
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HOW SUPERBIN WORKS



SUPERBIN can contain bins or garbage bags of different sizes. If bins are placed inside, they must be open or without lid to allow the ozone to reach all parts of the waste.

SUPERBIN is also suitable for outdoor installation.



The combination of ultraviolet rays (UVC) and ozone allows the disinfection of viruses and bacteria, as well as the abatment of odors, reaching even the innermost and shaded parts, which are not affected by UV rays.

Once the collection bins or bags have been filled, it will be possible to extract them and confer them.

Thanks to SUPERBIN you can be sure that potentially contaminated waste (masks, gloves, water bottles, take-away food packaging) or biologically active waste (food waste, diapers, wet cloths) is disposed of correctly, that there is no proliferation of mold, viruses, bacteria and odors inside the collection bag and therefore that the health of the storage and disposal places is maintained.





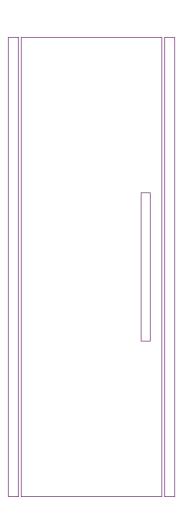


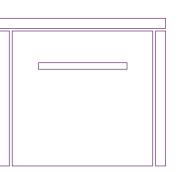
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OBJECTS SANITIZATION

SUPER EOS AND EOS





SUPER EOS AND EOS

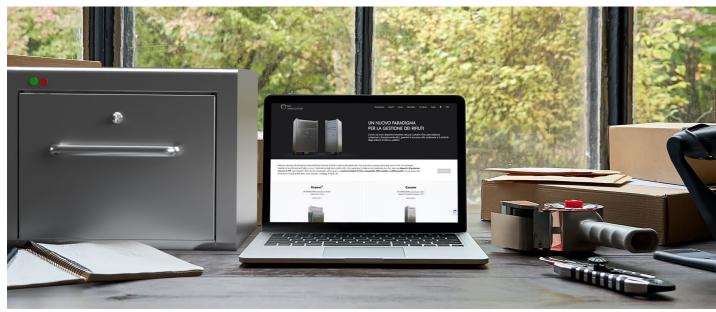
SUPER EOS and EOS are CONTAINERS for sanitizing and deodorizing clothing, personal and reusable objects, work tools, packages and bags suitable for be used and shared in public environments, offices or domestic environments.

The combination of ultraviolet rays (UVC) and ozone present inside them allows the **disinfection of viruses and bacteria**, reaching even the innermost and shaded parts, which are not affected by UV rays.



MODEL	SUPER EOS	EOS
FINISHING	Entirely built in stainless steel	Entirely built in stainless steel
DIMENSIONS	L. 50 X W. 50 X H. 190 cm	L. 59 X W. 55 X H. 45 cm
POWER SUPPLY	230 Vac	230 Vac
INSTALLED POWER	100 W	50 W
TECHNOLOGY	- UVC waves, which act on the surfaces of objects ensuring a total antiviral action	- UVC waves, which act on the surfaces of objects ensuring a total antiviral action
	- Ozone O ³ , which allows to reach with the sanitizing action even the innermost parts of objects with complex shapes	- ozone O ³ , which allows to reach with the sanitizing action even the innermost parts of objects with complex shapes
COMMAND	Automatic sanitization management system	Automatic sanitization management system
	Visual signalling system of the machine status (ready to use, in operation)	Visual signalling system of the machine status (ready to use, in operation)
EASY&SAFE OPENING	OPENING VIA DOOR	OPENING WITH RECESSED HANDLE AND CLOSING WITH A KEY











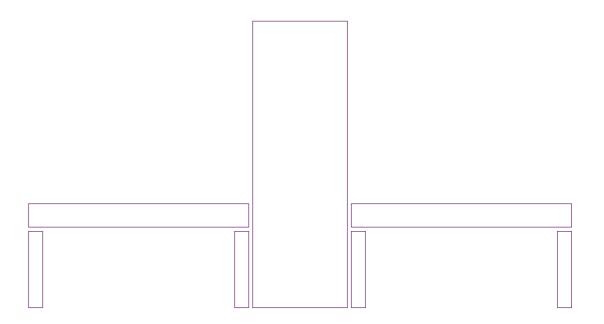






INDUSTRIAL SANITIZATION

PALLET CLEANER

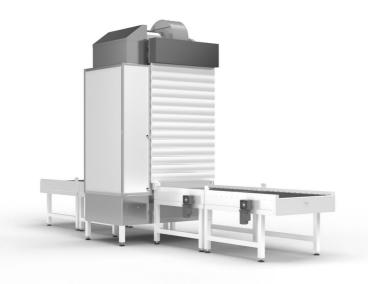


Smart solution for cleaning, disinfection and sanitization of pallets entering the production cycle.

PALLET CLEANER is a **fully automatic modular cabin** for sanitizing and cleaning pallets entering to the production cycle through the use of **forced air and UV-C**.

Pallets containing various types of packaging (glass, plastic, cardboard, etc ...), especially if stowed outside, are subject to attack and nesting by insects, the accumulation of cobwebs, foliage and dust. Before entering the production cycle, especially if used in food production processes, they must be sanitized to prevent the entry of pollutants into production environments.

The technical solution can be customized in size and optionals, such as automated transport, manual loading, automatic shutters, door opening, load capacity.

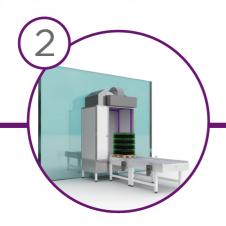




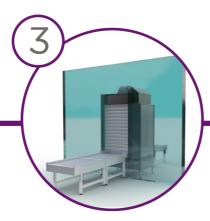




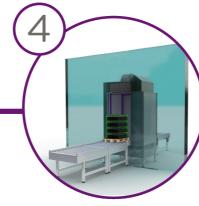
ONCE THE PALLET OF GOODS
HAS BEEN POSITIONED ON THE LOADING
ROLLER CONVEYOR, THE ROLLER SHUTTER
IS OPENED AT THE ENTRANCE, WHILE THE
UNLOADING ROLLER SHUTTER
REMAINS CLOSED



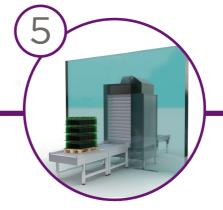
THE PALLET OF GOODS
IS BROUGHT INSIDE THE
TREATMENT CHAMBER



THE ENTRANCE SHUTTER CLOSES.
THE CABIN ACTIVATES THE CLEANING,
SANITIZING OR DISINFECTION CYCLE



THE CLEANING CYCLE IS COMPLETED



THE SHUTTER TOWARDS
THE INSIDE OF THE PLANT
OPENS AND THE PALLET OF GOODS
ENTERS TH PRODUCTION CYCLE

PRODUCTION CYCLE

INDUSTRIAL SANITIZATION

BASIC VERSION

USEFUL LOAD VOLUME	1200 mm x 1000 mm Max height 2100 mm In this version it is possible to load objects even without the use of pallets or possibly loaded on trolleys
TEMPERATURE	Based on environmental temperature 0 ÷ +40°C
FORCED AIR	5.6 kW centrifugal fan and adjustable flow rate up to 7200 m³/h for blowing, recirculation, suction
UV	1,1 Kw di UV-C
VOLTAGE	400 V (3F + N + PE) – 50 Hz
INSTALLED POWER	8 kW
TREATMENT ROOM*	Load volume L.180 x W. 150 x H.180 cm, equipped with: UV-C and forced air side technical compartment with removable and washable stainless-steel filter and with UV-C disinfection for filter loading / unloading door with opening door equipped with UV shielded glass door lock safety sensors during the cycle flooring with stainless steel sheet
PRODUCTIVITY	Minimum 1 treatment every 5 minutes
INDUSTRY 4.0	Certificabile
MARK	CE
ELECTRICAL CABINET	On board, equipped with PLC and touch screen display

FULL OPTIONAL VERSION

USEFUL LOAD VOLUME	1200 mm x 1000 mm Max height 2100 mm
MAXIMUM MASS	1000 kg for each module
TEMPERATURE	Based on environmental temperature 0 ÷ +40°C
FORCED AIR	5.6 kW centrifugal fan and adjustable flow rate up to 7200 m³/h for blowing, recirculation, suction
UV	1,1Kw UV-C
VOLTAGE	400V (3F + N + PE) – 50Hz
INSTALLED POWER	10 kW
TREATMENT ROOM*	Load volume L.180 x W. 150 x H.180 cm, equipped with: UV-C and forced air iside technical compartment with removable and washable stainless-steel filter and with UV-C disinfection for filter electric shutters at the entrance and exit of the module safety and pallet presence sensors roller conveyor with independent transport roller motorization, idle roller / forward gear
LOADING CONVEYOR*	Load volume L. 150 x W. 140 cm safety and pallet presence sensors independent transport roller motorization, idle roller / forward gear
UNLOADING CONVEYOR*	Load volume L. 150 x W. 140 cm safety and pallet presence sensors independent transport roller motorization, idle roller / forward gear
PRODUCTIVITY	12 pallet/hour (minimum treatment 1 pallet every 5 minutes)
INDUSTRY 4.0	Certificabile
MARK	CE
ELECTRICAL CABINET	On board, equipped with PLC and touch screen display

^{*}The solution can be customized in size and optionals. The customer can choose the height of the loading floor. The overall height of the machine depends on the loading height of the roller conveyor which is defined according to the customer's needs.

 $[\]ensuremath{^{*}}$ The solution can be customized in size and optionals.



INDUSTRIAL SANITIZATION

DRY CLEANER

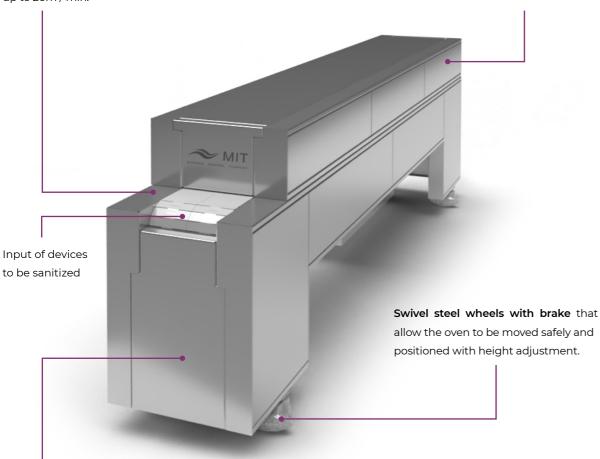


DRY CLEANER

Dry Cleaner has been studied to offer the market a **new technology for the sanitization of surgical** facial devices produced continuously, work coats, caps and any other type of fabric.

The machine is entirely built in stainless steel for food use and has a maximum size of 350 x 103 x H.144 cm. The machine treats the fabrics that are introduced with a **dry thermal process** while they are transported on a 30 cm wide **stainless-steel slat belt** with independent brushless motors connected in an electric axis with a gearmotor at an adjustable speed of up to 20 m / min.

DRYCLEANER is completely protected by **insulation**, suitably made with certified materials for food use, it is contained in waterproof modules to ensure the containment of any dustgenerated by wear.

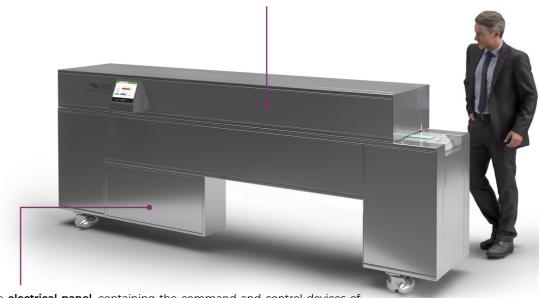


The base, made with profiles and press-folded stainless-steel sheets, is equipped with the conveyor belt sliding systems and the lower heating systems to guarantee the achievement of the set temperature.

The **temperature** that can be set from the operator panel can reach up to **150° C**, this allows you to adjust the intensity according to the material to be treated.

The hood, made with bent stainless-steel profiles and plates, is equipped with the sliding systems of the pressure belt and the **upper heating systems** to guarantee the achievement of the set temperature. The hood has the possibility of move vertically with a maximum stroke of 250mm, in this way maintenance operations are facilitated.

The ascent and descent command of the hood is given with two-hand control. The lifting and closing of the hood are guaranteed by compensation springs for the closing movement, pre-compressed cylinders for cancelling the weight of the hood, automation and adjustment of the up / down movement by means of four rack axes interconnected with the compensation chain, linear actuator with compressed air for handling.



The **electrical panel**, containing the command and control devices of the machine, is integrated in the structure and completely in stainless steel.

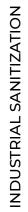
General power supply: 400Vac (3P + N + PE) 50 Hz Average consumption: 6 ÷ 9 kW/h Consumption during ignition: 12 ÷ 22 kW/h Ignition phase duration: from 15 to 22 min

Operating parameters managed

The machine manages the following operating parameters which are acquired and displayed on the touch screen panel display:

- · three temperatures measured on the base
- · three temperatures measured on the hood
- · current absorbed by the heating systems on the base
- · current absorbed by the heating systems on the hood
- · electrical phase presence control
- · conveyor belt speed
- · speed of the pressure belt
- position indication of the hood (opening / closing)
- · serial connectivity with master module
- network connectivity for remote assistance and remote diagnostics
- · internal temperature of the electrical panel













WHY CHOOSE THE BIO INERTIZERS

2 IN 1

The technologies used in the BIO INERTIZERS have been designed for industrial and continuous use and have 2 main functions: cleaning and safeguarding the healthiness of environments or objects of use.

SAFETY

By respecting the GO GREEN concept, you can save energy with the technological solutions used. The combination of heating technology allows high energy efficiency and reduces process time and consumption.

There is a certification that the ozone concentrations present within the BIO INERTIZERS are below the maximum occupational exposure limit, and also the UVC emissions are always and exclusively contained within the devices.

MAINTENANCE

BIO INERTIZZATORS are simple and easy to maintain; ordinary cleaning can be performed safely by a single operator.

SOLIDITY

BIO INERTIZZATORS are machines built with high quality materials and designed to last over time.





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