

# PALLET CLEANER

SAFETY IN YOUR PRODUCTION

SMART SOLUTION FOR CLEANING, DISINFECTION AND  
PEST CONTROL OF PALLETS



**CATALOG 2020**



**MIT**

MICROWAVE  
INDUSTRIAL  
TECHNOLOGY



## AN EYE ON INNOVATION

Thanks to the experience and know-how acquired over years of research and production, MIT has developed and proposed serial line machines for the most varied heat treatments. These machines have a **combination of heating technology: microwave, infrared/hot air** that allow the optimization of heat treatments.

**CUSTOMER SERVICE** Our technical experts and specialized staff are available to solve any problems with our machines. In addition, our specialized staff offers all our customer free training sessions on the usage of machines

## WHY INVEST IN MIT TECHNOLOGY?

With 20 years of experience, we have a **HIGH LEVEL OF SPECIALIZATION** and a **SPECIFIC KNOWLEDGE** in industrial heat treatments, constantly supported by the Microglass research center.

Our lines **EFFECTIVELY COMBINE MANY TECHNOLOGIES** (microwave, infrared Microred ®, ultraviolet, hot and cold air) to dry water-based paints on wooden or metal substrates in a very short time, polymerize resin and glues, to perform treatments on food (cooking, pasteurization or sanitization), etc.

**PALLET CLEANER** is a new disinfection solution with fully automatic modular cabin, which adapts to every process of sanitizing and cleaning the incoming pallets to the production cycle: forced air cleaning and UV disinfection.

## ENERGY SAVING & PRODUCTIVE FLEXIBILITY

Thanks to, our patented technological systems and certified high-quality construction material, the performance of the treatment generated by our machines is uniform throughout the chamber with an eye into reducing working times and therefore the consumption of power.

## MICROGLASS ECOSYSTEM

MICROGLASS GROUP was found in the year 2001 with the aim of producing and marketing components, machines and systems for thermal transformations in the industrial sector, thanks to the **combination of electrothermal technologies (microwave, infrared and ultraviolet) with traditional technologies, in hypobaric conditions, hyperbaric or modified atmosphere**, with the aim of efficiency, of the processes and obtain high quality products.

MICROGLASS GROUP is mainly composed of **MICROGLASS RESEARCH & DEVELOPMENT** (MIUR accredited laboratory for R&D and the supply of specialized components), **M.I.T. INDUSTRIES** Made in Italy Technology (for the production and sale of machines and plants).



**PALLET CLEANER** is designed with the aim to introduce the market with a **new combined technology (forced air & UVC)** for **cleaning and disinfection of pallets** (glass, plastic, cardboard, wood etc.) which can be included in a production cycle.

The **GERMICIDAL ULTRAVIOLET RADIATION (UVGI)** is a sterilization treatment that use the UV light with wavelength UV-C, that modify the DNA or RNA and leads to the inactivation of bacteria, viruses, and protozoa.

**Viruses (such as Coronaviruses)** are sterilized with the disinfection cycle provided by **PALLET CLEANER**

**PALLET CLEANER** is a perfect solution for the sectors that handles many pallets during production and for pallets containing various types of packaging (glass, plastic, cardboard, etc.), especially if stored outside are subject to attack and nesting of insects, the accumulation of cobwebs, foliage and other pollutants, before entering the production cycle. Especially if used in food production processes, they must be sanitized to avoid the entry of pollutants into production environments.



**SAFE AND RELIABLE PROCESS**

The interlocked shutter closing system prevents contamination of the rooms: the doors will not be opened simultaneously and the door inside the production department is only open when the pallet is been cleaned. The technology of the treatment is safe and reliable.

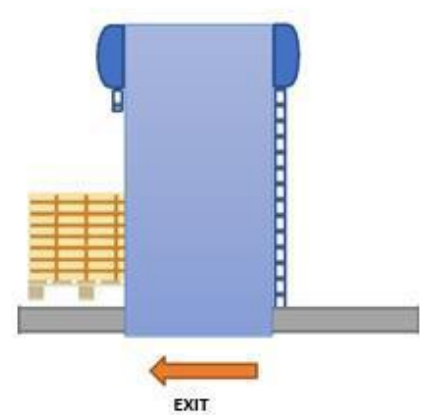
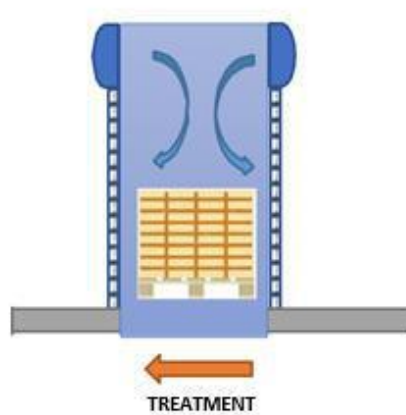
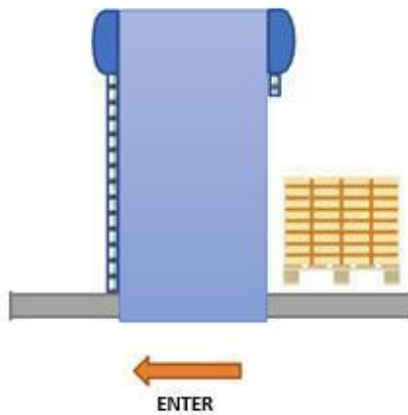


FORCED AIR  
CLEANING



UV-C  
DISINFECTION

FUNCTIONING



Once the pallet has been positioned on the loading roller conveyor, the roller shutter is opened at the entrance, while the unloading roller shutter remains closed, and the pallet 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 enters the production cycle

Once the pallet has been positioned on the loading roller conveyor, the roller shutter is opened at the entrance, while the unloading roller shutter remains closed, and the pallet is brought inside the treatment chamber.





Fan for intake and recirculation of cleaning air

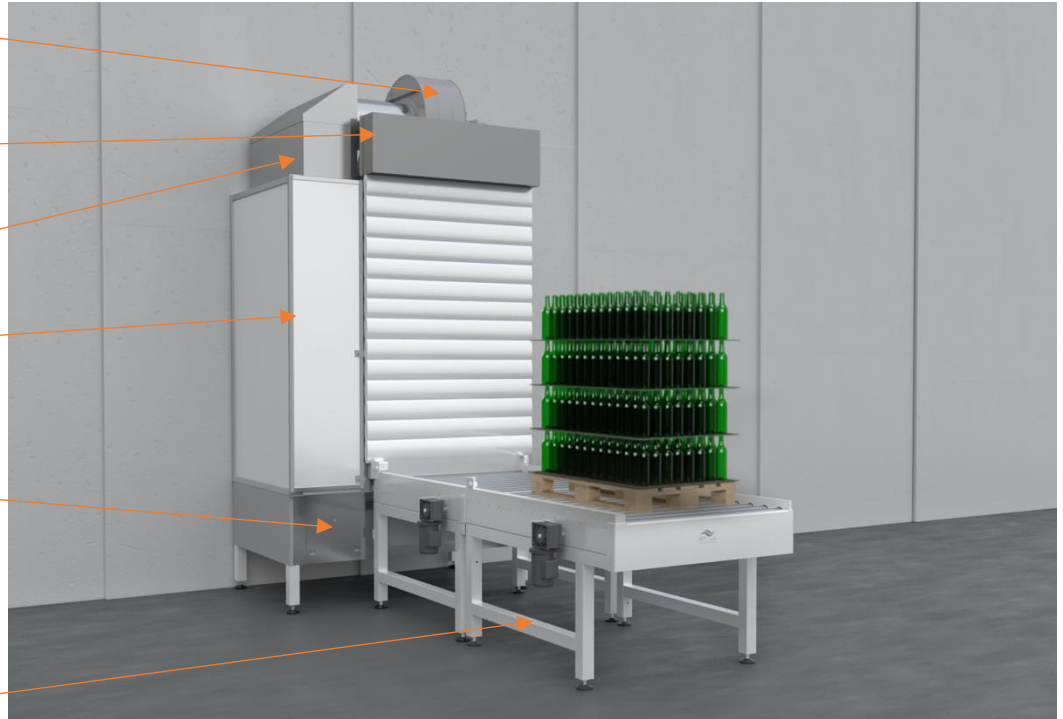
Box for roller shutter door

Box for the passage of recirculated filtered air

Filter compartment with stainless steel filter, removable and washable, with UV-C lamp

Doors to extract the dirt collection drawer for cleaning

Loading with independent motorization, idle / forward rollers and photocells for pallet positioning



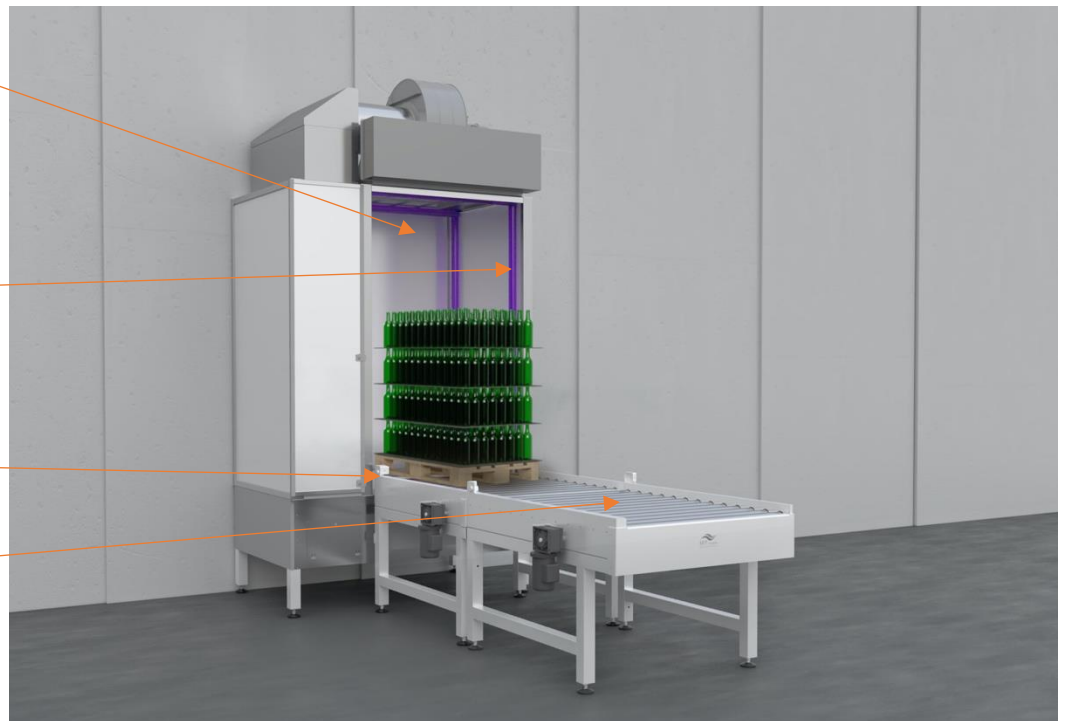
1. OUT OF PRODUCTION AREA: Pallet waiting in the loading area

Single station room

UV emitters

Sensors controlling the position of the pallet

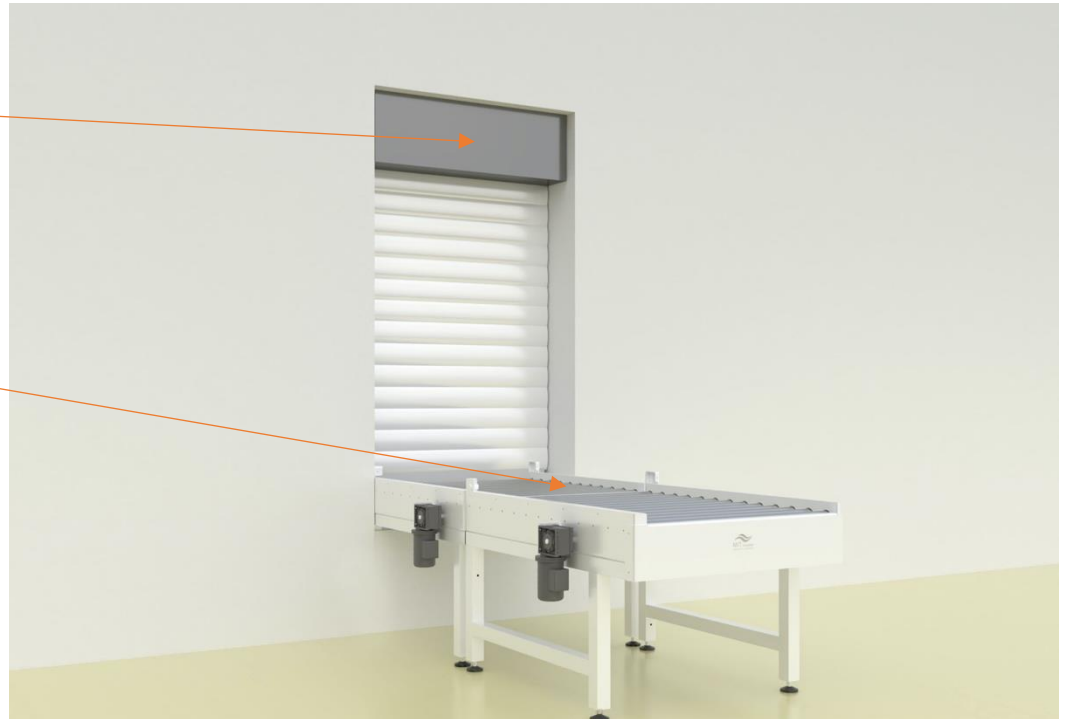
Loading with independent motorization, idle / forward rollers and photocells for pallet positioning



2. OUT OF PRODUCTION AREA: Pallet loading in the treatment chamber

Box for roller shutter door

Unloading with independent motorization, idle / forward rollers and photocells for pallet positioning

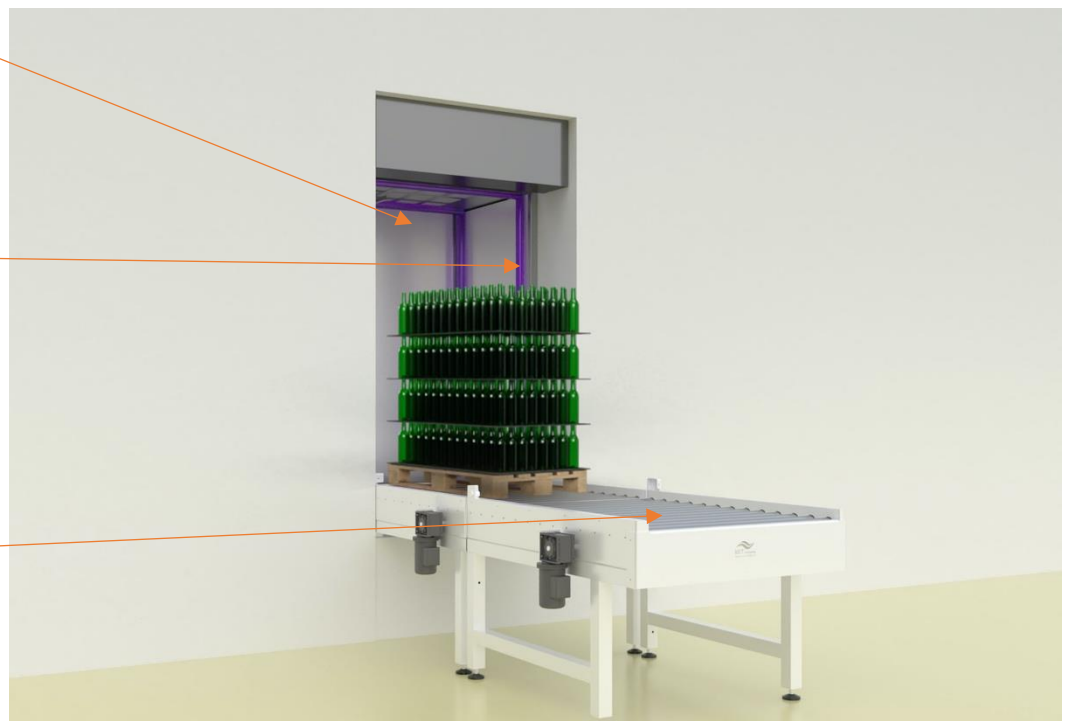


3. INSIDE THE PRODUCTION AREA: During treatment, both doors are closed

Single station room

UV emitters

Unloading with independent motorization, idle / forward rollers and photocells for pallet positioning



4. INSIDE THE PRODUCTION AREA: Pallet, disinfected, ready for unloading

TECHNICAL FEATURES

VERSIONE\*



FORCED AIR  
CLEANING



UV-C  
DISINFECTION

<b>Pallet Dimensions</b>	1200 mm x 1000 mm Max Height 2100 mm
<b>Capacity</b>	50 L
<b>Maximun mass</b>	1000 kg for each module
<b>Temperature</b>	Based on environmental temperature 0-40°C
<b>Forced Air</b>	5.6 kW Centrifugal Fan and adjustable flow rate up to 7200 m3/h
<b>UV</b>	1,1Kw UV-C
<b>Voltage</b>	400V (3F + N + PE)
<b>Frequency</b>	50 Hz
<b>Installed power</b>	14 kW
<b>Treatment room</b>	L.180 x P. 150 x H.255 cm, attrezzato con: <ul style="list-style-type: none"> <li>• UV-C ed aria forzata</li> <li>• side technical compartment with removable and washable stainless-steel filter and with UV-C disinfection for filter</li> <li>• electric roller shutter at the input and output of the module</li> <li>• safety and pallet presence sensors</li> <li>• independent transport roller motorization, idle roller / forward gear</li> </ul>
<b>Loading conveyer</b>	L. 150 x P. 140 cm <ul style="list-style-type: none"> <li>• safety and pallet presence sensors</li> <li>• independent transport roller motorization, idle roller / forward gear</li> </ul>
<b>Unloading conveyer</b>	L. 150 x P. 140 cm <ul style="list-style-type: none"> <li>• safety and pallet presence sensors</li> <li>• independent transport roller motorization, idle roller / forward gear</li> </ul>
<b>Productivity</b>	12 pallet/hour (minimum treatment 1 pallet every 5 minutes)
<b>Industry 4.0</b>	Certificabile
<b>Mark</b>	CE
<b>Language of Panel and Manual</b>	English

**\*other technologies available on request**

## BENEFITS OF PALLETCLEANER

**2 IN 1** – **PALLETCLEANER** is a combinable technology oven which has been designed by MIT SRL for **industrial use** especially for all the treatments in the entrance of the material in the productive areas. It has 2 main functions: **cleaning and disinfection**.

**CONSUMPTION** – Respecting the **GO GREEN** concept, with MIT OVENS you can save up energy. The combination of the heating technology permits high energy efficiency and reduce process time and consumption.

**MANAGEMENT AND CONNECTIVITY** – The oven is programmable from the operator panel, easy to operate touch screen, can store maximum number of recipes. The front panel is designed with a visual signaling system that indicates the indications the progress or the status of the oven.

**MAINTENANCE** – **PALLETCLEANER** is simple and easy to maintain; ordinary cleaning can be carried out safely **by a single operator**. The cabin can be easily cleaned at every corner, the technical cabinet is accessible by opening the sheet plated on the front, the filter can be removed separately and washed, the electric board is remoted in the productive area, all the command are remoted in an unique command center.

## OVEN BUILT WITH HIGH QUALITY MATERIALS AND DESIGNED TO LAST FOR A LONG TIME



Address

via Degli Etruschi, 10  
33080 San Quirino (PN)  
ITALY



Call us

Phone: +39 0434 91148  
Fax: + 0434 91148



Write to us

Email: [info@mit-industries.biz](mailto:info@mit-industries.biz)  
PEC: [mitsrl.pec@legalmail.it](mailto:mitsrl.pec@legalmail.it)



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