

ADVANCED SOLUTIONS FOR MULTITECNOLOGY CABINS

FOR HIGH CUSTOMIZED PRODUCTION
TO REALIZE UNIQUE PRODUCTS
FOR JUST IN TIME PRODUCTION

CATALOG 2020





WHO IS MICROGLASS GROUP

MICROGLASS GROUP was founded in 2001 with the objective of producing and selling devices, machines, thanks to the combination of electrothermal **technology (microwave, infrared and ultraviolet) with traditional technologies, in hypobaric, hyperbaric conditions or in a modified atmosphere**, with the aim of making processes more efficient and obtaining high quality products.

The GROUP is mainly composed by **MICROGLASS RESEARCH & DEVELOPMENT** (a MIUR accredited laboratory for R&D and the supply of special components), **M.I.T. INDUSTRIES** Made In Italy Technology (for production and sale of machine and plants).

CONTRIBUTION TO THE INDUSTRY

Thanks to experience and know-how gained through years of research and production, in 2008 Microglass launched a new line of multipurpose machines. Up until present time, these machines possess **a combination of infrared, hot air and microwave heating technology (even with vacuum or pressure) that permits all the batch treatment just in time.**

CUSTOMER SUPPORT Our specialized staff is conveniently available for our customers to resolve any issues with our machines. In addition, our specialized personnel provide to all our customers free training sessions in how to use our machines.

WHY INVEST IN A MULTITECHNOLOGY MACHINE?

Our cabins efficiently combine many technology (microwave, infrared MICRORED, hot and cold air) for drying up treatments of water varnishes on wood supports, or metals and derived, resin and adhesive polymerization, food treatment (cooking, pasteurization or sanitization), etc.

MTT Micro Therm Tech has been developed thanks to studies and applications in different operative sectors and is able to offer very high standard both in **PRODUCTIVITY** and treatment's **HOMOGENEITY** (drying up, polymerization, etc.)

MTT is the best choice for a multipurpose solution in production.

ENERGY SAVING & INCREASE IN PRODUCTIVITY

Thanks to our infrared (IR) patented system **MICRORED** and microwave combined with hot air in recirculation and high quality certified insulating material panels, the heating performance featured by our machines is uniform throughout the treatment chamber and desired temperatures can be achieved faster and maintained, reducing processing time and energy consumption.

FULL SAFETY

Microwave ovens heat the objects by the action of radiofrequency radiation, equipped with a low amount of energy.

Only high-energy ionizing radiation have power, that are able to change the subatomic structure of matter and thus to induce DNA damage that can increase the risk of cancer. **MICROWAVE IS NOT AN IONIZING RADIATION.**

The food heated in the microwave is not radioactive, because it is not subjected to ionizing radiation. From a nutritional point of view, in many cases it is better to cook food with microwaves than with classical methods.

THE OPTIMAL CHOICE FOR MANY APPLICATIONS



CERAMICS

Drying up manufactured products



RESIN AND FIBREGLASS

Polymerization, drying up, curing and post Curing



WOOD

Drying up varnishes
Drying up wood component and wood agglomerate
Gluing
Treatment against woodworm



GLASS AND METALS

Drying up varnishes on glass and metal manufactures



PLASTICS

Drying up varnishes on plastic materials
Component drying



FOOD

Sanitization
Cooking
Pasteurization
Shelf life

VARIETY OF RANGE, QUALITY & FLEXIBILITY

MODULARITY The MTT booths have been conceived as modules and can be joint in order to obtain a treatment tunnel of different lengths, in which it could be treated single trolleys or semi-manufactured products of big dimensions (ex. panels, boat's bodies etc.). Moreover thanks to partialization systems among the modules (that takes place through closing/opening's shutters placed between a module and the following) is possible to work only in one part of the tunnel, fitting the energy quantity to the real load, avoiding efficiency decreases and energy wastes.

Moreover, through the management of the shutter's closing, there is the possibility to follow at the same time more treatment recipes (for ex. short treatment in the cabins 1, and contemporaneously a long one in the cabins 2, 3 and 4).

- Instantaneous capacity of energy penetration with very high heating speed
- Instantaneous activation and quiescent
- Outstanding heating selectivity of different materials
- Very high energy saving
- Heating takes place from inside to object surface
- Possibility to combine different technologies
- Adaptability of technology (by dimension and by process type)

PLUS

ADAPTABILITY The MTT booths are available in different versions: low temperature (ex. for food treatments), medium temperature (ex. varnishing drying up on wood supports) and high temperature (ex. varnishing drying up on metal, drying up on ceramic objects and ceramic glazes). Besides there are available various optional in order to fit the oven to the requested applications, as the possibility to put a stain steel AISI 316 or 314 cavity. The machine has particularly strengthened against unfavorable working conditions, such as high temperatures or dusty environments.

RECIPE SELECTION The different technologies (IR-MW- cold/hot air) can be chosen singularly or can be regulated with combined modality. Through the control panel is possible optimize and memorize recipes of specific treatments. Indeed, the three technologies have different peculiarity and efficacies for each treated material and their combined action allows quickly a better result.

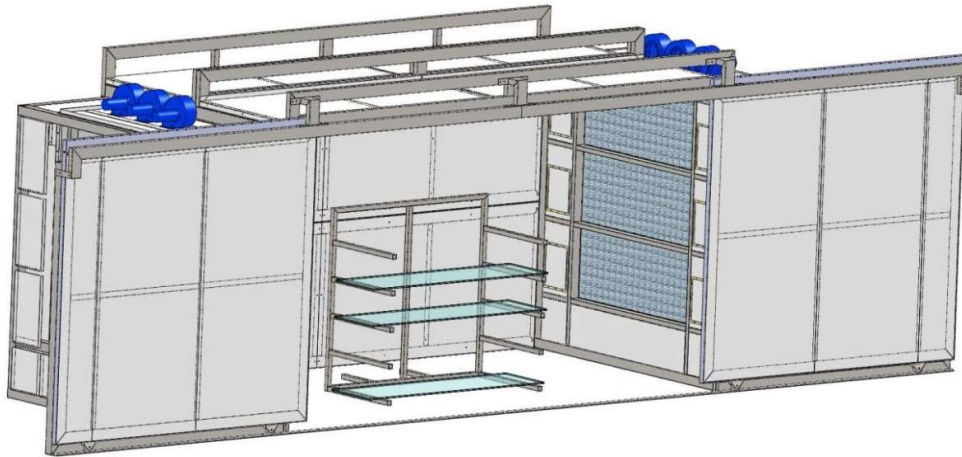
These furnaces have been designed for those companies that deal with SMALL/MEDIUM SIZE AND HIGH CUSTOMIZED PRODUCTIONS and desire the BASICS BUT EXPECT QUALITY AT A RELATIVELY LOW COST. MTT line is characterized by the combined heating system made up of microwaves, infrared MICRORED and hot air in recirculation.



INFORMATION/TECHNICAL DATA	MTT CABIN
Internal Platform Work Area Standard Dimensions <i>Customized dimensions can be available upon request</i>	1800 mm x 3000 mm 2000 mm x 4000 mm
Height of Treatment Chamber <i>Customized dimensions can be available upon request</i>	2100 or 2400 mm
Installed Power	Min. 56 kW with microwave
Heating System	Microwaves, IR Panels (MICRORED) + Hot Air in Recirculation
Voltage	400 V 3-phases - 50 Hz
Working Temperature	130 °C
Maximum Temperature	130 °C
Process Recipe Programs	Up to 256 programmable recipes / up to 10 interval cycles
Automatic Night Cycle	Programmable
Number of Treatment Platforms	Variable
Setup for glass lamination	Optional
Programmable Logic Controller (PLC)	Touch Screen

For additional information see the contract offer

MULTIFUNCTIONAL SPACIOUS FURNACE WITH ALL-IN-ONE BUILT-IN MICROWAVES, INFRARED (IR) AND HOT AIR TECHNOLOGY



MTT with slide doors

Furnace equipped with multilevel trays for lamination or for drying of varnished glass, furniture, panels, windows, plastics, etc...



Control panel with touch screen



Spacious multipurpose treatment chamber



Ideal solution for automatic storage



Multilanguage panel, with remote control (i.e. radio command)

MTT MODEL OPTIONAL

MULTIFUNCTIONAL SPACIOUS FURNACE WITH ALL-IN-ONE BUILT-IN MICROWAVES, INFRARED (IR) AND HOT AIR TECHNOLOGY



MTT with slide doors for food treatment



MTT with manual doors, equipped for woodworm treatment



MTT in automatic cycle for varnish polymerization in metal manufacture (automotive sector).



MTT installed into a cleaning room for special and just in time production in furniture.



MTT with slide doors for pet food treatment



Automatic MTT for robot production in special industrial treatment

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