



IGOS

Radio Frequency pasteurization of loose and packaged products

The RF pasteurizers ensure a rapid and thorough microbial inactivation, preserving at best physical, sensorial and nutritional properties of food.



The outstanding benefits of the RF technology can also be achieved in the disinfection, sanitization and pasteurization of various food commodities, intermediates or finished products, either in bulk or packaged.

Food processors often rely on steam or other conventional heating systems (mostly based on hot air circulation or surface heat exchangers) for the microbial inactivation/stabilization processes: the heat transfer is generally slow and uneven, severely damaging the physical, sensorial and nutritional properties of the product.

Differently, the ability to penetrate deep inside the product mass and generate heat evenly and instantly is, at the same time, the main characteristic and the main benefit of RF heating. Practically, in RF pasteurizers the product is submitted to a rapid and gentle dielectric heat treatment for a few minutes, that leads to live cell destabilization and microbial

inactivation. In this way, food substrates can be sanitized while preserving their physical, sensorial and nutritional properties.

RF machines are rather small in size and modular, so that additional production capacity can be easily added at any time. This makes convenient the integration of the RF technology into existing production lines.

Adjustable parameters in the PLC allows the operator to set the appropriate process recipe for each product.

Either batch or conveyorized model RF machines are available, depending on the product type and production capacity requirements. The machines and their ancillary equipment are designed and supplied according to the customers' specific requirements.

➤ RAPID AND COST EFFICIENT

Small footprint, fast process and low energy consumption make the RF pasteurizers a cost-efficient solution for microbial abatement.

➤ ACCURATE PROCESS CONTROL

The process parameters can be easily adjusted and automatically controlled based on the specific needs of each particular product, thus ensuring a gentle yet effective sanitization process, minimizing at the same time human errors.

➤ SAFE AND RELIABLE

Non-ionizing radio frequency energy waves are used to disinfest, sanitize or pasteurize products; all their physical, sensorial and nutritional properties are preserved at best.

➤ VERSATILE TECHNOLOGY

The RF technology can be used to stabilize a wide range of food commodities and products, either in bulk or packaged.

Suitable for:

- Nuts
- Legumes
- Cereals, pulses, grains
- Rice, corn
- Herbs, powders, flours
- Packaged fresh pasta, bread
- Pet food
- Baked products



➤ **Sanitization of corn**
1000 Kg/h throughput

➤ **Pasteurization of packaged croissants**
300 Kg/h throughput

➤ **Pasteurization of dried tomatoes**
800 Kg/h throughput

TECHNICAL FEATURES

RF Power (kW)	Standard Dimensions LxWxH (mm)	Max. Belt Width (mm)	RF Generator Cooling System	Nominal Throughput (kg/h)
5	1700x700x2300	batch	Air	/
7	5500x1450x2700	500	Air	100
20	6050x1500x3950	1100	Air	200
40	7600x2130x3400	1750	Air	400
60	9600x2130x3400	1750	Air or Water	600
85	9600x2130x3400	1750	Air or Water	800

Note: Production rate depends on product type, size, shape etc. The equipment can be customized to accomplish any production requirement.