

# TMW35

## MICROWAVE DECONTAMINATION TUNNEL

This microwave decontamination tunnel is designed to sanitize products like seeds, herbs, powders ... in a few minutes.

The fast treatment and homogeneous heating allow to preserve the organoleptic properties of the treated ingredients.

This microwave tunnel is compatible with organic labelling.



### KEY BENEFITS

- **Organic compatible:** eco-friendly process, avoiding using chemical products
- **Fast:** very short time of treatment, between 5 to 15 minutes
- **User friendly:** easy loading / unloading, colour touch screen HMI
- **Homogeneous:** excellent heat treatment homogeneity
- **Reliable:** no need for regular maintenance, except daily cleaning
- **Hygienic:** no bacteriological growth, complies with all hygiene regulations and standards
- **Flexible:** can be used for any packaging (cardboard, plastic film, jars, ...) or unpacked food
- **Compact:** small floor footprint
- **Connected:** USB and ethernet connection for remote control



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## PROCESS

**EFFICIENT:** the process of decontamination using our technologies consists in exposing the product to a microwave field during a short time within a temperature-controlled processing cavity. The temperature of the cavity, the intensity of the field and the process duration depends on the product to be treated and the bacteria to be eliminated.

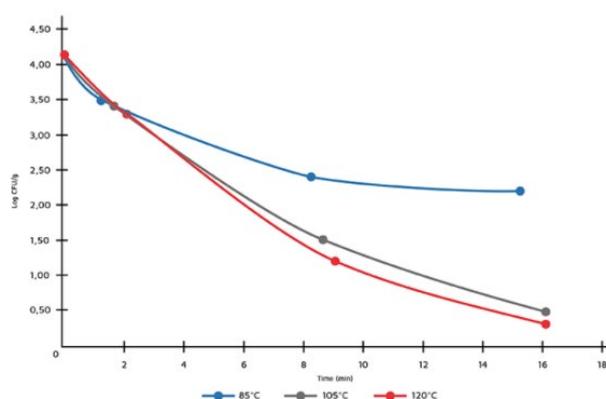
**CHEMICAL FREE:** the use of a microwave process avoids the use of chemicals and thus meets the demand of suppliers and producers. This sanitization is therefore compatible with organic certification. This decontamination solution is extremely quick, economical and particularly effective to destroy bacteria colonies.

**FAST:** thanks to the polar properties of water, microwaves have the ability to heat materials faster than many equipment. In the case of spices and seeds, the MW heat faster than the conventional processes. Consequently, micro-organisms are eliminated and the properties of the treated product preserved.

The solutions developed by SAIREM offer an economic and efficient process for the decontamination of dried food and ingredients such as: flour, cereals, spices, lentils, beans, mushrooms, cocoa beans, nuts, seeds, cannabis, milk powder, etc.



## RESULTS ON BLACK PEPPER CORN



Our tests carried out on black peppercorns are showing good results. The product was tested at three different processing temperatures, 85°C, 105°C and 120°C, and three different holding times: 0, 7 and 14 minutes. For a total of 9 treatment modalities.

Knowing the initial level of contamination is 4.30 log, there are significant reductions in microbial levels (3.83 Log) with the 14 minutes holding time at 120°C.

Logarithmic reduction of the total flora for the different treatment conditions – 2450 MHz Microwave energy

To get the complete data sheet :

- full specifications
- technical drawings

**CONTACT US !**

