COSTPANO®

Cooking Sterilisation Pasteurisation No hole / No valve

International Patentet

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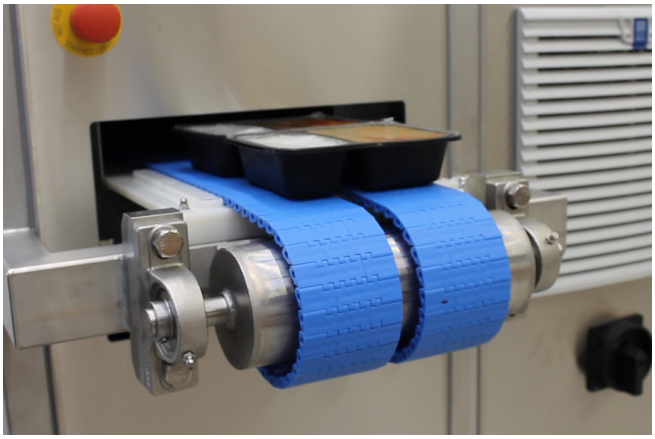
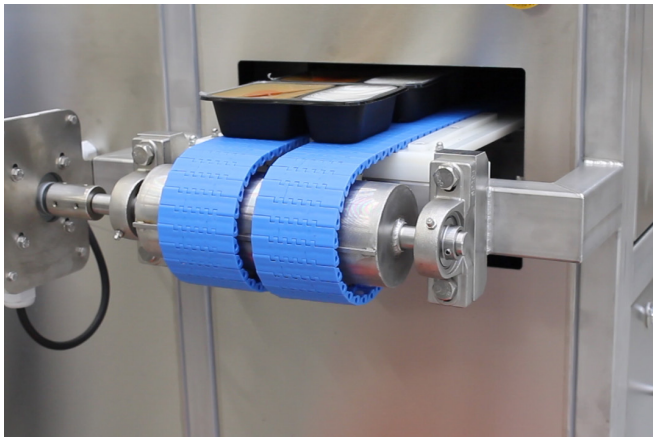
Gentle and Aromatic Cooking and Steralization / Pasteurization

For the pasteurization of these trays so far the perforation of the film and the use of a check valve were essential to avoid bursting of the trays due to the overpressure. The innovative and groundbreaking COSTPANO® process marks the beginning of a new era in the heat treatment of foods using microwaves. The worldwide patented COSTPANO® process eliminates the overpressure in the tray, eliminating the need for both the hole and the valve in the sealing foil. In addition, COSTPANO® sets up very homogeneous temperature fields in the trays or application rooms with a time-linear increase, which enables energy-saving, gentle and aromatic cooking. COSTPANO® is the only system suitable for the pasteurisation of new sustainable packaging types made of cardboard or organic material.

COSTPANO® Test System





Key Features

With this heating method, the overpressure in the menu tray is avoided, which excludes the danger of explosions and deformations of the menu trays.

- No hole or valve required
- No steam escapes, which saves a considerable amount of energy
- No odour formation
- No addition of water during cooking results in aromatic cooking
- Substantial increased homogeneity
- Linear temperature increase, enabiling easily processing (automatic temperature control)
- 2D selectivity: Different heating rates per tray cavity
- International Patent and Registered Trademark - only available at Fricke und Mallah
- Certified process by internationally respected research institute in the field of food technology
- COSTPANO® is the only system suitable for the pasteurisation of new sustainable packaging types made of cardboard or organic material

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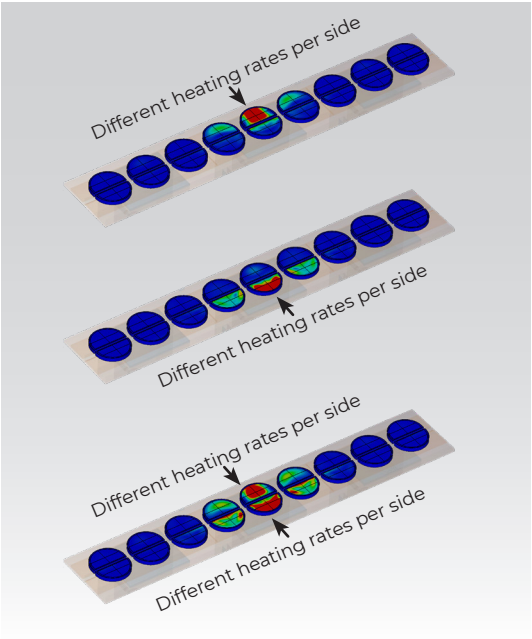
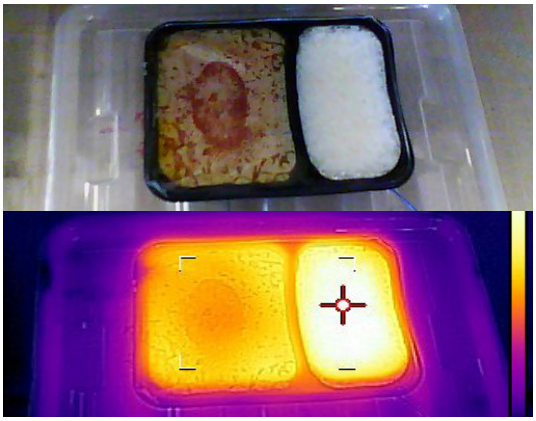
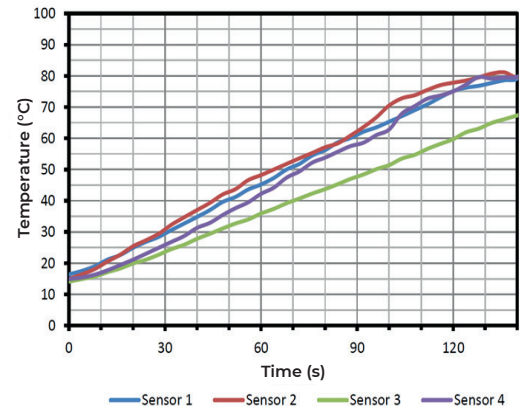


2D - Selectivity: Genrators can be used selective

Result of power loss per object (in one tray) during one complete run through – during its way through the oven and end result after passing – very homogeneous result. In this model, 2-cavity trays were heated with different heating rates per side. Enabling the equalizing and holding of the work-temperature for the required heating process (pasteurisation).

These in-depth simulations were used to design the standard COSTPANO microwave tunnels.





Temperature time dependency

Very homogeneous temperature profile of both tray chambers. In contrast, the free microwave irradiation of food generally has a chaotic temperature-time course with high temperature rates and many non-linearities.

These temperature-time curves were measured in a household microwave modified according to the COSTPANO® method with relatively poor field homogeneity. This means that in a COSTPANO® microwave tunnel the results will be much better.

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