

SANIFLUID+

Pasteurisation of liquid products in the tube

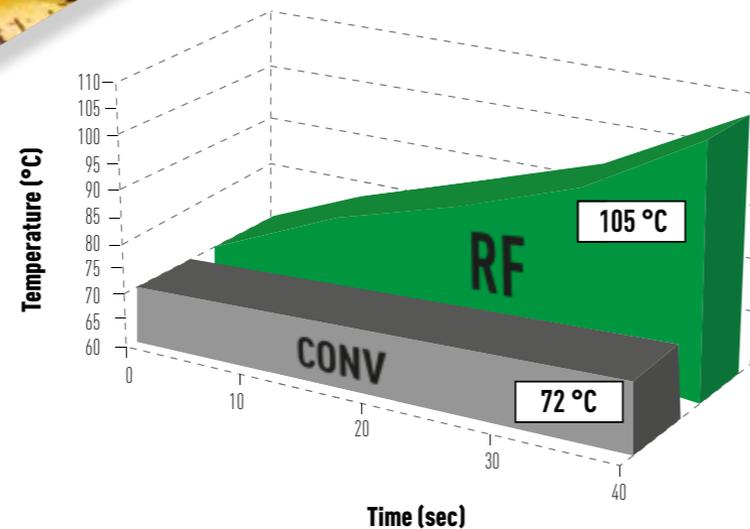


Fast treatment, utmost freshness

SANIFLUID+ has been specifically designed for the continuous pasteurisation and sterilisation in the tube of liquids and other fluidised (i.e. pumpable) products, even with suspended solids.

This system ensures high productivity and energy efficiency, outstanding product quality, full guarantee of inactivation of microorganisms with the minimum possible modification of the product's physical, chemical and sensorial characteristics.

Several production lines incorporating the SANIFLUID+ technology are in operation worldwide, with a typical throughput of 2,000 kg/h or more.



How it works?

The fluid substrate is continuously pumped through one or more tubes made of a food-grade, RF-transparent material, having a suitable diameter according to the specific product. The tubes are placed between especially designed electrodes, powered with relatively low RF voltages, that amplify and concentrate the electric field on a small volume, yet with no energy losses or risk of arcing. The intensity of the electromagnetic field and the consequent heating rate are controlled by means of a variable capacity coupling circuit. Heating rates from 1-2°C/sec (for highly viscous liquids containing suspended solids) up to 50-100°C/sec (for low-viscosity liquids with no particulates) are possible. The temperature set point required for pasteurisation or full sterilisation can be reached and controlled with an accuracy of +/-0.5°C.



MODELS AVAILABLE

RF power (kW)	Tubes in the applicator	ΔT20°C	ΔT40°C	ΔT60°C	ΔT80°C
40	2	1500 kg/h	750 kg/h	500 kg/h	350 kg/h
85	4	3300 kg/h	1650 kg/h	1100 kg/h	800 kg/h
150	6	5800 kg/h	2900 kg/h	1950 kg/h	1450 kg/h

*Production capacities may vary depending on the product type.
Multiple modules can be combined to increase the production capacity even at a later stage.*

Benefits

Minimal thermal treatment, better quality, safer product

The rapid and uniform temperature increase within the product, also in the suspended solids of any size, eliminates the risk of under- or over-processing. The microbial inactivation is performed at lower temperatures and in a shorter time compared to conventional thermal processes. Moreover, a better preservation of the physical, chemical and sensorial characteristics of the product is achieved, with reduced use of additives such as colours, flavours, thickeners, etc. normally used to compensate for product degradations caused by conventional thermal processes.

Fast and flexible process

SANIFLUID+ allows an instantaneous heat input, an accurate process control and a high operational flexibility. The equipment can be fitted with a CIP system and with a PIC system for in-line change and recovery of the product, making it very suitable also for small and medium size product batches. The equipment sterility can also be easily maintained in stand-by conditions.



Floor space saving modular system

Multiple SANIFLUID+ units can be installed in-line to achieve a higher production capacity. A limited factory floor space is required thanks to the small size of each unit.

Minimum maintenance required

Easy cleaning, no crusting (fouling) effect thanks to no contact with any heating element, and low maintenance costs.

