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EQUIPMENT FOR NON-DESTRUCTIVE THERMAL TREATMENT OF MILK

Milk, a natural liquid food, is one of our most nutritionally complete foods, adding high-quality protein, fat, milk sugar, essential minerals, and vitamins to our diet.
Pasteurization, named for Louis Pasteur who developed the process, represents the thermal treatment of milk, under 100°C, respecting a certain temperature-time ratio, for total removal of pathogens and milk organisms responsible for milk alteration.

In other words, pasteurization kills bacteria that produce disease and retards spoilage in milk but it doesn't destroy organisms that grow slowly or produce spores.
Proper pasteurization will greatly increase the storage life of milk and will inactivate certain enzymes responsible for spoilage.

We are offering you the best solution for a complete pasteurization of milk and cream: **EPAL µ-118**.

EPAL µ-118: the ideal solution equipment for milk preservation

The equipment used for milk pasteurization using the energy of microwaves **EPAL µ-118** is the result of the researches developed by the specialists from ICPE.

The main goal of **EPAL µ-118** is to destroy the pathogenic micro flora for improving milk's preservation period.

EPAL µ-118 can be used as high capacity equipments (600-1000 l/h), for farm units with access to the electrical energy network or as small capacity equipments (100-300 l/h) for isolated farm units, with no access to the electrical energy network, combined with independent photovoltaic system.

For the isolated farm units, the equipment can be operated together with a "solar cooling" system for milk at 4-5° C for preserving and transporting milk in optimum conditions, for further consumption or processing.

The EPAL µ-118 system presents several advantages with respect to the classical pasteurization systems:

- reduction of the pasteurization temperature from 65˚- 68°C (for milk) and min 75˚-78°C (for cream) and storage/intact preservation of the active nutritive components of milk
- this type of pasteurization exhibits a lower energy consumption than in the case of steam pasteurization
- reduction of air pollution due to the absence of the thermal unit, encountered only in the case of the classical pasteurization
- the possibility of its usage in isolated places supplied by photovoltaic panels

EPAL-µ118 - the best solution for a safe life

Proper pasteurization will greatly increase the storage life of milk and will inactivate certain enzymes responsible for spoilage.

Ultra-high temperature (UHT) processing destroys organisms more effectively and the milk is essentially sterilized and can be stored at room temperature for up to 8 weeks without any change in flavor.

PASTEURIZATION

Pasteurization strikes a happy medium, keeping the flavor delicious while making the food safer.

ADVANTAGES

1. reduction of the energy costs by decreasing the pasteurization temperature
2. ensures the microorganisms removal, almost 98,5%
3. increasing the preservation period with almost 25%
4. unaltered preservation of some healthy alimentary and nutritive principles by reducing the pasteurization temperature

TECHNICAL CHARACTERISTICS

Feeding voltage: 3x400V or 230V or DC at request
Working frequency: 2.45±20%GHz
Absorbed power: 2.8 kW
Useful power:1.7 kW
Flow rate: 200-300 l/h for 2 kW absorbed power (type I)
Flow rate: 500-600 l/h for 4 kW absorbed power (type II).