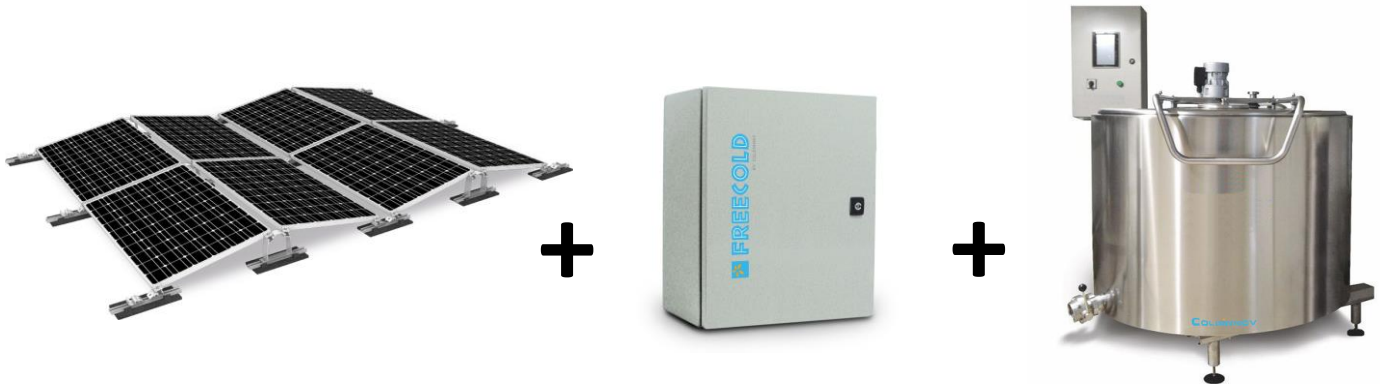


## 300 litres autonomous solar pasteurizer

*Including photovoltaic power supply and smart management of energy*



### *The pasteurizer*

The FREECOLD pasteurizer is designed for heat treatment of milk or juices with a capacity of 300 litres. Its electrical power allows it to quickly heat a volume of milk at an adjustable temperature up to 90°C;

All in stainless steel, the tank has a smooth inner wall, rounded corners and polished welds for optimum conditions of hygiene and food safety. The heating and cooling of the milk are made by a water circulation in the double wall of the pasteurizer.

The 10kW heating unit is coupled to the electronic control panel for easy control of the pasteurization process. The stainless-steel structure has four adjustable feet to level the milk pasteurizer in case of uneven ground.

A stirring device - to homogenize the milk without foaming at 30 rpm - a temperature controller with immersed sensor and a stainless-steel valve - allowing complete drainage of the tank - complete its equipment.

### *The photovoltaic power supply*

The pasteurizer is delivered with 40 photovoltaic modules, from European origin, their supports and pre-installed electrical wiring for a quick and easy commissioning.

The installed solar plant of 12.5 kWp powers the pasteurizer directly and simultaneously recharges the batteries to guarantee the autonomy of the installation.

### *The management of energy*

Coupled to the photovoltaic modules, the FREECOLD boxed set guarantees the quality of the electrical supply and prioritizes the solar source before any other possible source, power grid or generator;

The installation's solar batteries, with a capacity of more than 28 kWh, smooth out the irregularity as well as intermittences of the photovoltaic source.

The installation is secured by DC disconnecter and lightning arrester devices, and AC differential switch. The whole installation, including the photovoltaic field is grounded.

## 300 litres solar pasteurizer

*Including photovoltaic power supply and smart management of energy*

- ✓ All in stainless-steel (AISI 304) pasteurizer approved for food use
- ✓ Outside dimensions: 110 x 100 x H 100cm with control box
- ✓ 10 kW electric heating unit in 400V 3-phase; Heating of the tank by circulating hot water
- ✓ Cooling by water circulation in the double wall of the pasteurizer with overflow output
- ✓ Electric stirring device with removable blade
- ✓ Ø30 DIN butterfly drain valve
- ✓ Equipped with temperature sensor, electronic thermostat and thermometer
- ✓ Electronic control panel for easy control of milk temperature and pasteurization process
- ✓ 12,5 kWp solar power supply composed of 40 polycrystalline 330Wp photovoltaic modules (72 cells 6", European Union origin, 25 years performance guarantee)
- ✓ Supports of solar panels delivered complete in kit
- ✓ Electrical Safety Box DC/AC-Lightning arrester; DC switch + AC differential switch 30mA
- ✓ Buffer storage by the maintenance-free AGM battery pack (28.8 kWh - 600Ah-48v) of the milk tank
- ✓ Energy management and coupling of sources optimized according to the available power inputs (PV, batteries, external AC) and output requirements (pasteurizer, milk tank, battery charging)
- ✓ Unit packing: 1 pallet: 120 x 100 x H140 cm – 240 kg  
2 pallets 200 x 100 x H120 cm – 500 kg  
2 pallets 100 x 100 x H80 cm – 620 kg

