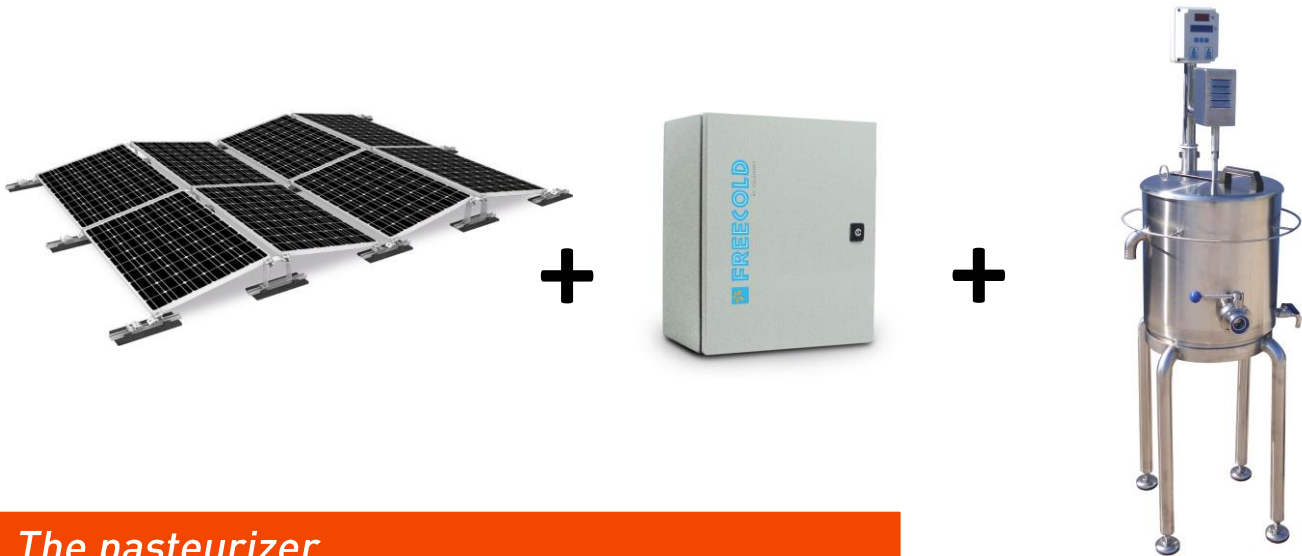


100 litres solar pasteurizer

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 100 litres. Its electrical power allows it to quickly heat a volume of milk at an adjustable temperature up to 95°C, with an outdoor temperature at 35°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 heating unit (with a power from 2,5 to 6 kW) is coupled to the electronic control panel for easy control of the pasteurization process. The stainless-steel structure has adjustable feet to set the pasteurizer perfectly horizontal in case of uneven soil.

A stirring device - to homogenize the milk without foaming at 25 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 12 photovoltaic modules (from European origin and supplied with their supports and pre-installed electrical wiring) to increase the power of a milk tank's solar plant and ensure a quick and easy commissioning.

The pooling of the 6.5 kWp available energy between the pasteurizer and the milk tank gives access to tank's solar batteries to smooth the irregularity of the solar source while ensuring the milk tank's autonomy.

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 pooling of available energy between the pasteurizer and the milk tank gives access to tank's solar batteries, with a capacity of more than 12.5 kWh, to smooth the irregularity of the solar source.

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

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- ✓ All in stainless-steel (AISI 304) pasteurizer approved for food use
- ✓ Outside dimensions: Ø60 x 100 x H 150cm with control box; Weight: 85kg
- ✓ 2,5 to 6 kW electric heating unit in 230 V single 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
- ✓ 4 kWp additional solar power supply composed of 12 polycrystalline 325Wp 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 (12,5 kWh - 260Ah-48v) of the 330L 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 without photovoltaic: 1 pallet: 120 x 80 x H165 cm – 105 kg

