

Pasteurizing unit (with thermoregulator)

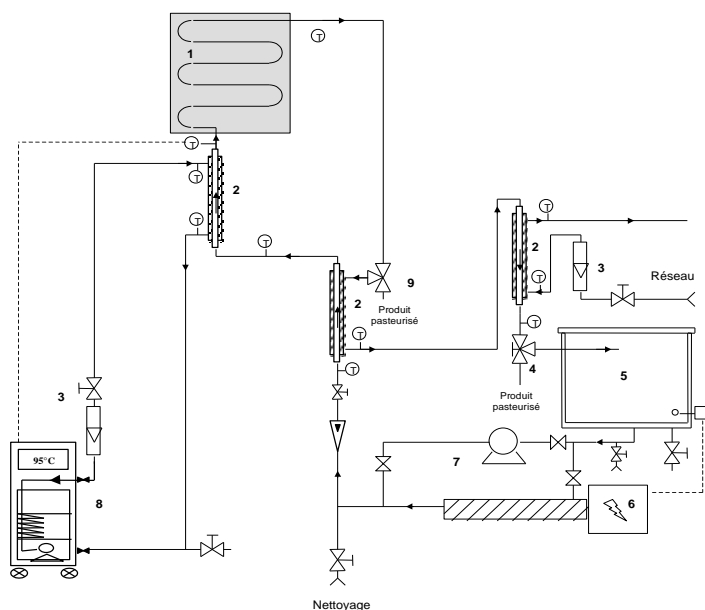
DESCRIPTION

- The unit is totally made of 316 L stainless steel.
- Designed and manufactured to industrial standards.
- Designed to track the main temperatures on a recorder or a PC.
- Complete with technical documentation and instructions.
- 200 L/h of product can be treated by the unit (a 100 L/h unit is also available)



SUGGESTED APPLICATIONS

- Exploring the benefits of pasteurizing.
- Study of the influence of the pasteurization scale (relationship between the temperature used and the time required).
- Calculation of the thermal balance on the exchangers.
- Influence of parameters on product quality.



Frame: 304 L stainless steel on pivoting little wheels with brakes.

Hydraulic circuit and other elements of 316 L stainless steel. All the elements of the circuit are visible – with SMS connectors.

Safety Features

Sound signal for any dysfunction or stopping of the system
The unit conforms with current norms
CE Certification, ISO 9001 Certification
Electric protection by a differential breaker
Emergency stop

Data acquisition (option)

Analogue acquisition card of the temperatures
Analogue/digital conversion card
Connection to a PC through a RS232C port
Acquisition data recording software
(PC not included)

Utilities

Electricity: 380 V Three-phase - 20A – 50/60 Hz

Dimensions and weight

Length: 1200 mm
Width: 1000 mm
Height: 1750 mm
Weight: 185 kg

1. Lagged chambrage circuit

- chambrage time: 20 s to 3 min.
- stainless steel with changeable chambrage times

2. 316L stainless steel tubular exchangers

- preheating
 - heating
 - cooling
 - regulation loop
- passage consists of Co or counter current with assembly coupling types connectors and alimentary hoses

3. Rotameter

4. 3-way valve for automated selection

Finished product/cycle back (chambreur outlet)

5. Supplying tank

- 316L stainless steel: 240 litres
- with low-level probe

6. Volumetric pump

PTFE diaphragm pneumatic pump
For thick, viscous or charged liquids
Flow rate: 0-300 L/h

7. Centrifugal pump

316 L stainless steel body
Efficiency = 0.37 kW
Flow rate: 0-1000 L/h under 1.5 bar (22 psi)

8. Thermoregulator

Efficiency: 18 kW (10-95°C), on little wheels with brakes
With PID regulator and regulation with outer temperature probe (Pt 100 type) at the inlet
With 14 L- tank , 0-5bars (75 psi) manometer and expansion tank

9. Washing tank: 50 L - 316 L stainless steel

Instruments

5 stainless steel probe-thermometer: accuracy 0.3°C(-50 at 150°C)

2 Pt 100 temperature probes: one for the regulation at the chambreur inlet (PID regulator of the thermoregulator), the other for the hot water circuit

Temperatures from Pt 100 are sent (if necessary) to a 2-way recorder with Pt 100 inlets

16 speeds of $1.7 \cdot 10^{-3}$ at 20 mm/min (provided)

Glass window for the observation of the pasteurizer's outlet

Control of the pneumatic pump

Reducing and regulation valves for the air arrival on the volumetric pneumatic pump