

# GPC V30

## Evaporator – double effect

### DESCRIPTION

- This unit is designed to separate a solid (solute) from a solvent or to raise the concentration of solute in the solution.

This separation occurs through the complete or partial evaporation of the solvent.

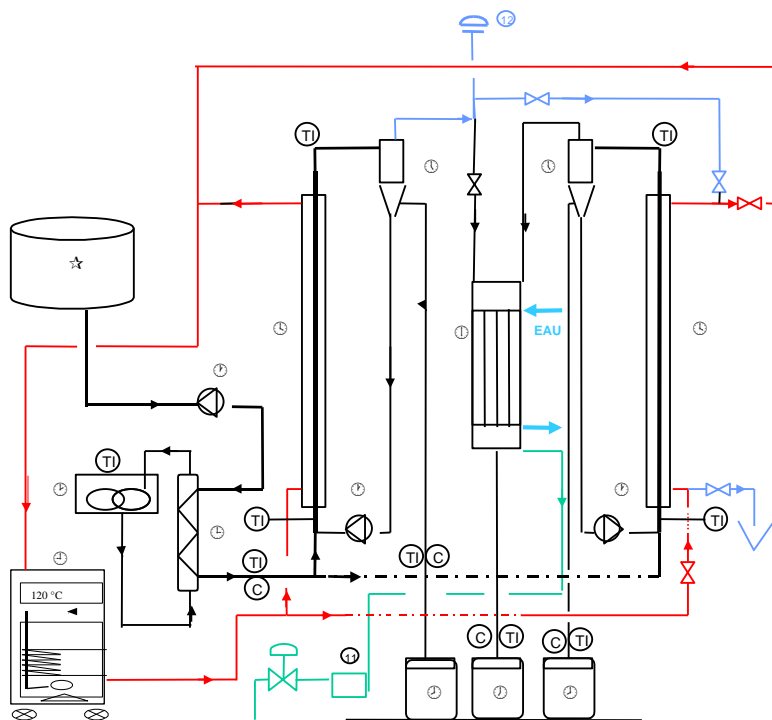
- This unit enables one to observe and control a double evaporation process. It is equipped with two evaporators heated by a thermal fluid : the outgoing vapor of the first one is the heating vapor for the second one.
- Practical applications include changing the concentration of dissolved substances in fruit juice and milk or for desalinating sea water and brackish water.
- In order to operate semi-automatically, data collected by the unit is sent to a command box, which in turn transmits it to a PC containing the required software. (This software is an optional extra)



### SUGGESTED APPLICATIONS

- Study of the process of evaporation
- Thermal and mass balances
- Determination of the coefficients of heat transmission
- Study of the influence of the pressure and the flow rate on forced recirculation

# GPC V30



## DESCRIPTION

- 1. Supply tank**
  - Polyethylene
  - V = 30 L
- 2. Diaphragm pump**
  - Flow rate 0 – 83 L/h
  - Outlet 4 – 20 mA
- 3. Thermostatic bath**
  - P = 2 000 W
  - PID regulator
- 4. Supplying pre-heater**
  - Borosilicate glass
  - S = 0.2 m<sup>2</sup>
- 5. Evaporators**
  - Height : 1 200 mm
  - Diameter : 25 mm
  - Double-walled
  - Stainless steel
- 6. Centrifugal separator**
  - Stainless steel
- 7. Condenser**
  - S = 0.5 m<sup>2</sup>
  - Stainless steel
- 8. Recipe of product**
  - Borosilicate glass
  - V = 5 L
- 9. Recipe of condensate**
  - Borosilicate glass
  - V = 5 L
- 10. Pressurized water thermoregulator**
  - P = 6 kW
  - Portable – on wheels

## UTILITIES

Electricity : 400 VAC  
50 – 60 Hz  
Network water

## DIMENSIONS

Length : 2 000 mm  
Width : 1 000 mm  
Height : 2 500 mm

## MEASUREMENTS

**T1** : 7 temperature sensors  
**C** : 2 conductivity sensors

## OPTION

Vapour making boiler – data acquisition system and graphic diagram transmitted to a PC by a software