

## UNITE DE CRISTALLISATION CONTINUE



### EDUCATIONAL APPLICATIONS

- Continuous process
- Dissolution of the solid to recrystallize
- Continuous crystal sampling
- Data monitoring
- Influence of parameters: Temperature, stirring speed, concentration
- Influence of feed rate

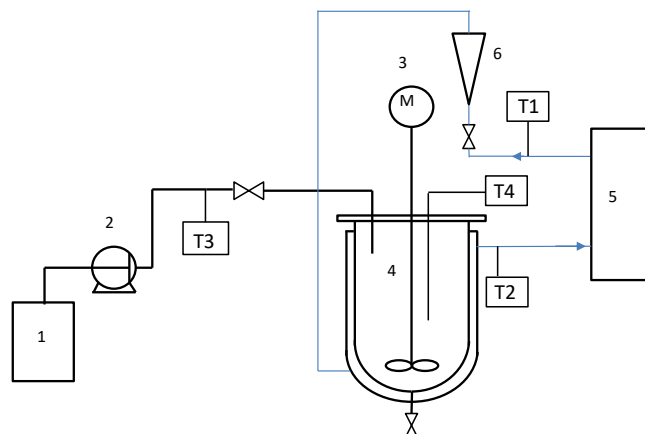
## HOW IT WORKS

Crystallization is a widespread process in industry. It involves a wide variety of products: pharmaceutical, agricultural, chemical, etc. However, this operation remains challenging to perform. The proposed model aims to increase students' awareness of the various parameters and variables that occur during crystallization. This bench will allow, based on material and thermal balances, to draw conclusions about the operation of the chemical treatment.

The robust design of this equipment makes it perfectly suited for use in educational settings.

Its anodized aluminum structure on wheels makes it extremely robust and flexible for integration into your premises. The manufacture of this equipment complies with the European Machinery Directive.

## Illustrations



The bench is installed on an aluminium profile structure equipped with four directional brake castors. It has an electrical box with general power disconnect and 30mA differential circuit breaker.

### 1. Feed tank

- 10L glass graduated container
- Heated magnetic stirrer to keep the solution at temperature

### 2. Feed pump

- Peristaltic pump
- Variable flow pump 0-10L/h

### 3. Stirrer

- Variable speed 10-2000rpm
- 3 counter-blades to optimize agitation.

### 4. Glass crystallizer

- Material: borosilicate glass
- Usable volume 3L
- Stainless steel coil for cooling
- High-level detector
- Stainless steel top flange

### 5. Temperature Control Unit

- Integrated water pump
- Cooling and heating system
- 2KW heating/250W cooling

### 6. Circuit with float flow meters and flow control valve

Integrated instrumentation:

- Thermocouple temperature probes
- Measurements are displayed on a 7-inch color touchscreen.

The equipment is supplied with a data acquisition system connected by WIFI to the machine

## Installation Specifications

- Power supply: 230 Vac – 50 Hz – 16 A
- Power supply type: 1 phase(s) + Neutral + Earth.
- Water supply: filling
- Dimensions: (LxWxH mm): 1350 x 695 x 1880
- Weight (kg): 120

Note: In the context of an installation of the equipment by our services, all connections to the networks must be located within 2m of the machine

## Documentation

- Instruction manual
- Technical documentation
- Lab exercises
- Electrical diagram
- Hydraulic diagram
- Data acquisition software
- CE Certificate of Conformity