EVAPORATION - DISCONTINUOUS CRYSTALLIZATION

REFERENCE : MP1003

Non contractual photo

SERVICE : 400 V / 50 HZ / THREE PHASE + N: 1 KW. 400 V / 50 HZ / THREE PHASE + N: 7 KW COLD WATER 10 ° C / 3 BAR: 2 M3 / H. SEWER.
DIMENSIONS : 2,05 M X 0,82 M X 2.9 M

WEIGHT : 300KG

Crystallization allows the separation, from a solution, of one or more solid compounds dissolved in this solution.
During the separation, the dissolved compounds pass to the solid state when the operating conditions are required (temperature, concentration). The crystals formed are then separated from the liquid phase by filtration.

Technical specifications :

- Recipe for storage of borosilicate glass crystallization solution, graduated with "juice elevator" system for filling reagents.
- Cylindrical type "grignard" reactor: 316L stainless steel tank with heat insulated thermal jacket and flush drain valve; 316L stainless steel lid.
- 316L stainless steel variable speed stirring unit with inclined tri-blade impeller.
- Cooling coil of the reaction mass in stainless steel.
- 316L stainless steel column, DN50, in a 500 mm element.
- Borosilicate glass column head, DN50, with temperature measurement.
- Vertical condenser, borosilicate glass ferrule, 316L stainless steel coil heat exchanger.
- 316L stainless steel distillate coolant.
- Recipes of borosilicate glass distillate, graduated.
- Thermal fluid generator, 6 kW power with circulation pump and temperature control.
- Heating hoses for heating thermal insulation fluid.
- Binding pipes
- PipelinesL reduced pressure of the different subassemblies on the general collector.
- Vacuum trap made of borosilicate glass.
- Support frame in 304L stainless steel tubes and aluminum nuts.

Instrumentation :

- Condenser cooling water supply equipped with a float flowmeter with its control valve and a water circulation controller to stop heating due to lack of cooling.
- Crystallization reactor cooling water supply equipped with a float flowmeter with its control valve.
- Distillate coolant cooling water supply equipped with a float flow meter with its control valve.
- Flow rate measurement by float flowmeter.
- Reactor and pilot pressure measurements by manometers.
- Control and control cabinet, IP55, equipped with emergency stop, operating buttons and the following interfaces:
- Digital temperature indicator of the crystallization reactor with probe type Pt100 ?.
- Variator of the stirring speed.
- Digital indicator of stirring speed.
- Two digital temperature indicators of 6 probes type Pt100 ?

DELTALAB SMT - 425 Boulevard Joseph Gay Lussac - 11000 CARCASSONNE
Tel 04 68 24 50 70 - mail : info@deltalab.fr

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OPTIONS :

Option 1: Vacuum pump. Option 2: Bag filter under reduced pressure in 316L stainless steel. Option 3: Touch screen to view temperatures. With data storage and data recovery on USB stick in .txt files.