

SOLID - LIQUID EXTRACTION

Mod. CB-OR-11/EV

DESCRIPTION

Pilot plant of solid-liquid extraction with distiller for recirculation of the liquid phase consisting of glass extraction column with lifting of the solid phase by motorized auger, external glass tank for the collection of the solid phase, external glass tank for solid phase equipped with motorized screw feeder, liquid phase distiller flask, glass refrigerant coil for solvent condensation.

The regulation of solid phase flow in the extractor is adjusted by the control on motor main auger while the regulation of the flow rate of the feed solid phase is adjusted by the control motorized auger of the feeding tank.

The flow of the liquid phase is fixed (depends on the power of the heating mantle).

The liquid phase is introduced as vapour coming from the distiller recirculation. A manual valve can regulate the vapour flow diverting to the reflux condenser or directly internally the extractor so as to heat the phases during extraction.

All seals are made of Viton.

The plant lets to make the extraction with hexane of oil from olive pomace, the extraction with ethanol of chlorophyll from spinach or the extraction with water of starch from potatoes.



TRAINING PROGRAM

- The extraction as purification process
- The separation of mixtures of substances
- Understanding the law of partition for a solid extraction
- Extraction with hexane of oil from olive pomace
- Extraction with ethanol of chlorophyll from spinach
- Extraction with water of starch from potatoes
- Power supply: 12 or 24 Vcc
- Stainless steel support structure
- Heating mantle for flask 2000 ml
- Electrical panel
- Digital thermometer with sensor for the column
- Hexane, 500 ml
- Ethanol, 1000 ml

COMPONENTS

- Glass extraction column external diameter 50 mm with lifting solid phase via motorized auger
- Glass external tank for collecting solid phase 2000 ml, connector GL 80
- Glass external tank for loading solid phase 2000 ml equipped with a motorized screw feeder
- Liquid phase distillation flask 2000 ml, connectors GL 32
- Glass refrigerant coil, connectors GL 32
- Connection hoses (external fittings are connected with collectors GL 32).
- Viton seals

SUPPLIED WITH

THEORETICAL - EXPERIMENTAL HANDBOOK

