



12L SOLID/LIQUID EXTRACTOR

- Extraction with hot solvent
- Various extraction modes for multiple applications
- Solvent preparation
- Preconcentration of the extract
- Ex-protected version
- Pilot Plant Solution





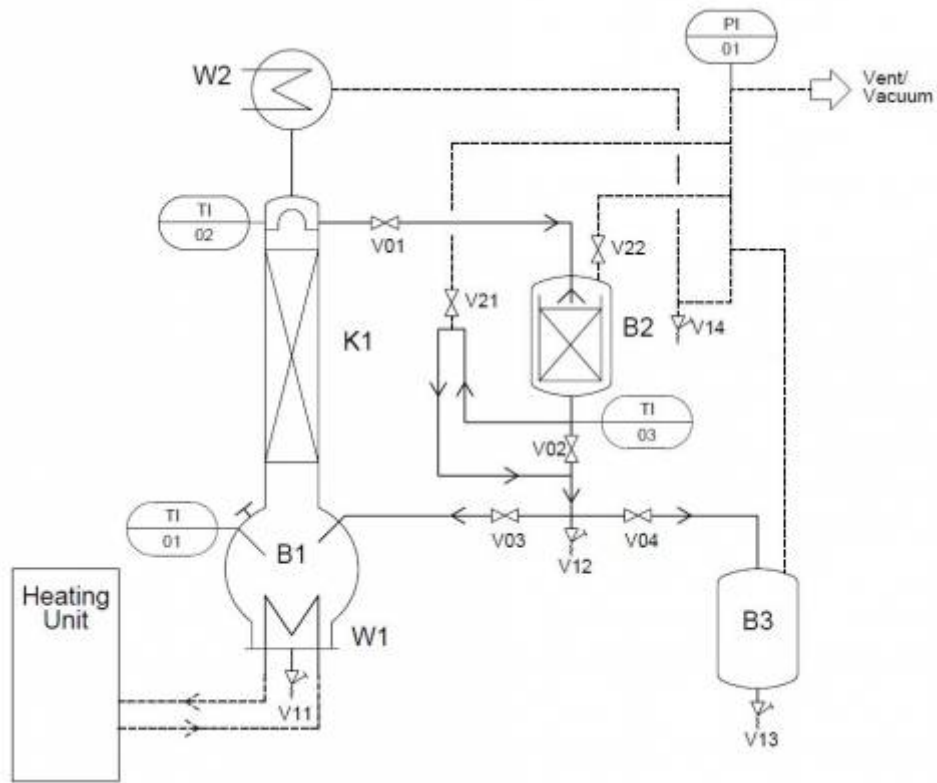
CONCEPT

- Versatile manual extraction system for several kg-quantities of solids.
- 3 different extraction modes:
 - Trickle bed extraction
 - Underflow extraction
 - Soxhlet extraction
- Solvent preparation with a 20l spherical evaporator with a coil type immersion heater.
- The temperature of solvent for the extraction is close to its boiling point and can be

regulated by the applied vacuum.

FUNCTION

A basket which can be filled with solids outside the system is accommodated in the extraction receiver. A valve after the bottom outlet of the extraction receiver permits to select the trickle bed mode. If closed a vent valve on top of a loop pipe permits to select between Soxhlet and underflow extraction mode. The solvent containing the extract is then guided either in a final receiver or to the evaporator. The solvent vapors from the evaporator are condensed in an uprising condenser and hence withdrawn at boiling temperature of the solvent. The hot solvent is then fed into the upper part of the extraction receiver dripping on top of the solids in the basket. By guiding the solvent to the final distillate receiver the extract can be concentrated in the evaporator. After the extraction the basket can be taken out of the extraction receiver and unloaded outside of the system.





TECHNICAL DESCRIPTION

The 12l basket containing the solids is a cylindrical glass receiver with a porous sintered glass plate at the bottom. The basket can be placed easily into a non-jacketed 20l extraction receiver (B2) due to a quick release coupling DN300 to remove the vessel cover. Compact valves control ventilation, product and cooling fluid flows. The 20 spherical evaporator (B1) is equipped with an immersion heater for heat transfer fluids or steam. The column DN100 (K1) is fill with Raschig-rings. The vapors are condensed in a vertical coil type glass condenser (W2). The reflux is manually adjusted.



TECHNICAL DATA

- Basket for solids (in B2): 12l
- Extraction receiver (B2): 20l
- Evaporator (B1): 20l
- Distillate Receiver (B3): 20l
- Column (K1): DN100
- Condenser (W2): 2,5m²
- Dimensions: 3500 x 1000 x 1500mm
- Ex-Zone in-/outside: 1/2IIB
- Extraction Temperature: -20 up to 150°C
- Extraction pressure: -1 up to atmospheric pressure
- Material in contact with product: Borosilicate glass 3.3, PTFE, PFA, stainless steel



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