

GPB UF1

Ultrafiltration

DESCRIPTION

- The study of a filtration system (microfiltration) that utilizes a membrane.
- Process of separation using a membrane under pressure which holds back dissolved particles and macromolecules found in the fluid.
- May run continuously.
- The unit is delivered complete with instrumentation and with technical documentation and instructions.

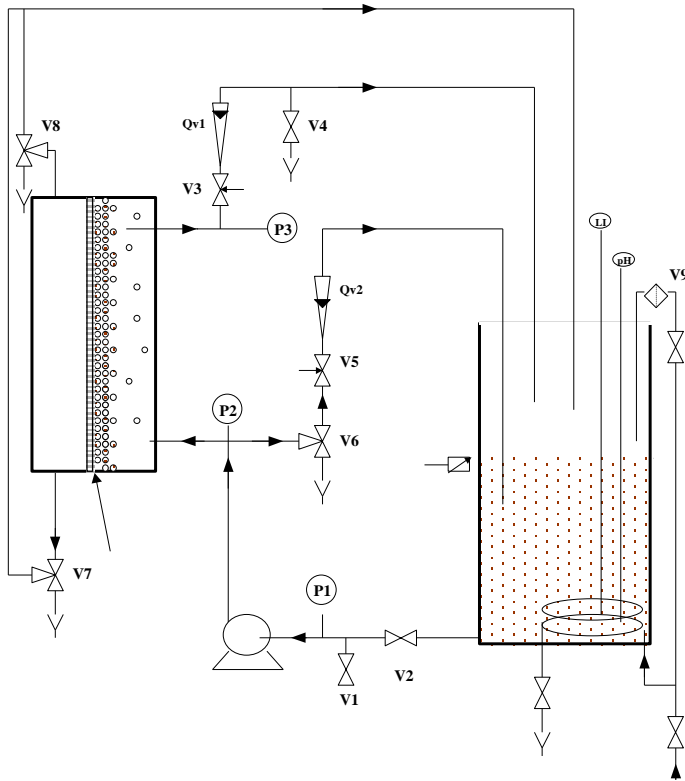


SUGGESTED APPLICATIONS

- Study of the process of ultrafiltration
- Determination of the various phases of ultrafiltration
- Determination of the retaining rate of the membrane
- Influence of supply velocity
- Matter balance
- Flow state : verification of the law of DARCY
- Study of the penetrability of the membrane

GPB UF1

PRINCIPLE SCHEME



- 1- Centrifugal pump – $P_{\text{maxi}} = 10$ bar (145 psi) – stainless steel
- 2- Polyethylene tank 100 L (with an exchanger).
- 3- Ultrafiltration membrane – $S=0.11$ m² / plaque (20 plaques support)
- 4- Filter for the network water by the exchanger
 - QV1 = recycled
 - QV2 = recirculation – valves
 - V1 = emptying of the supply tank
 - V2 = pump supply
 - V3 = adjustment of the recycled
 - V4 = low point on the recycled
 - V5 = adjustment of the recirculation
 - V6 = 3-way valve insulating the membrane
 - V7/V8 = adjustment of permeate flow rate
 - V9 = water supply
 - V10 = exchanger water supply
 - P1 = aspiration pressure
 - P2 = membrane inlet pressure
 - P3 = membrane outlet pressure

SPECIFICATIONS

Fluid size : between 2nm and 0.1 μm

DIMENSIONS

Length : 800 mm
Width : 1 100 mm
Height : 1 500 mm
Weight : 150 kg