

ULTRAFILTRATION DRIVER

REFERENCE : MP90



Non contractual photo

SERVICE : 220 V SINGLE PHASE, 1.5 KW

WATER SUPPLY

DIMENSIONS : 1500 X 800 X 1900 MM

WEIGHT : 200KG

Ultrafiltration is a separation process that is usable particularly suitable for separating or concentrating large molecules. It is also a technique of choice in the treatment of effluents containing proteins and other biological molecules (dairy, cheese ...)

When small mineral or organic solutes are to be retained, their size must be artificially increased by chemical processes such as polymerization or complexation with macroligands.

In the case of ultrafiltration, the pilot makes it possible to study the influence of the following parameters :

- Pressure ($Q = f(P)$)
- Discharge rate
- pH
- Solute concentration ($-Q = f(C)$ to constant P)

Technical specifications :

All components are mounted on a stainless steel tube frame and aluminum nuts with adjustable feet. The pilot consists of :

- An organic membrane with hollow fibers (This module can be fed either from the bottom or from the top, for possible backwashing).
- A feed tank with emptying and racking,
- A multistage centrifugal pump made of stainless steel
- An electronic speed variator
- A diaphragm protection valve
- A pH meter with local display in the feed tank
- 3 needle gauges (except option MP90CR-P and MP90CR-PT)
- Two float flowmeters on concentrate and permeate
- Two stainless steel needle valves for flow and pressure control, the other valves being quarter-turn PVC valves.
- Permeate circuit and reciprocating circuit back to the feed tank
- A concentrat tank and reciprocating circuit back to the feed tank
- A Pt100 probe, on the recirculation circuit (optional MP90CR-PT).
- A cooling circuit, comprising a tubular exchanger composed of 2 coaxial tubes (in the external circuit circulates the cooling water (mains water)) (optional regulation MP90CR-PT).
- A countercurrent washing circuit
- The circuit is made of PVC,
- A control and protection box for the pump