

REVERSE OSMOSIS AND ULTRAFILTRATION PILOT PLANT

Mod. UOU/EV manual
Mod. UOUc/EV manual with data logging

INTRODUCTION

This unit is a flexible system for studying the reverse osmosis and ultrafiltration on a wide range of operating conditions.

TRAINING PROGRAM

This unit enables to deepen the following issues:

- Effect of the following operational parameters on the process:
 - feeding flow rate
 - feeding concentration
 - working pressure
 - temperature
- Pre-concentration and concentration of milk
- Clarification and concentration of fruit juice
- Desalination of water

TECHNICAL SPECIFICATIONS:

Mod. UOU/EV

- Framework of AISI 304 stainless steel with castors
- Feeding tank of AISI 304 stainless steel with capacity of 30 litres
- Tank of AISI 304 stainless steel, with capacity of 30 litres, for permeate
- Piston pump of AISI 316 stainless steel
- Centrifugal pump of AISI 316 stainless steel
- AISI 316 stainless steel housing for 2 membranes; typical flow of permeate = 5-50 ml/min
- Heat exchanger of AISI 304 stainless steel
- 2 variable area flowmeters for permeate and concentrate (for mod. UOU/EV, only)
- 4 Pt100 with sheath of AISI 316 stainless steel
- 2 Bourdon gauges of AISI 304 stainless steel
- Safety valve
- Safety pressure switch
- Switchboard with ELCB

Mod. UOUc/EV

Besides being provided with all the characteristics of mod. UOU/EV, this model also includes the following additional items:

- 2 flowmeters with transmitter
- 2 pressure transmitters of stainless steel
- Interface for the connection with a PC included in the switchboard
- Data acquisition software for Windows



Dimensions: 1700 x 800 x 1900 mm
Weight: 225 kg

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 7,5 kVA (Other voltage and frequency on request)
- Tap water: max. 300 l/h (valve with ½" hose connector)

ACCESSORIES (NOT INCLUDED)

- Personal Computer running Windows (for mod. UOUc/EV, only)

SUPPLIED WITH

**THEORETICAL – EXPERIMENTAL
HANDBOOK**

