

FILTER PRESS AND MICROFILTER PILOT PLANT

Mod. FP-1S/EV

INTRODUCTION

This system is equipped with a filter press and a microfilter (tangential filtration) that are fed by a screw pump connected with a tank filled with the solution having to be filtered.

Then filtrate is collected into another tank.

A microprocessor PID controller enables to operate at constant pressure and flow rate. The supervision software enables to control the system from a PC.

TRAINING PROGRAM

This unit enables to deepen the following issues:

- Dead end filtration (filter press)
- Tangential filtration (microfilter)
- Characteristic equations of filtration
- Filtration at constant flow rate or pressure
- Display of plant operational parameters on the schematic diagram with real-time data
- Automatic flow and pressure control by PID controller
- Plant supervision by P.C.

TECHNICAL SPECIFICATIONS:

- Framework of AISI 304 stainless steel with castors
- Feeding tank of AISI 304 stainless steel, with capacity of 100 l, equipped with stirring system driven by submersible pump
- Tank of AISI 304 stainless steel, with capacity of 100 l, for collecting the filtered water
- Screw feeding pump with control system by electronic inverter
- Magnetic flowmeter of stainless steel with 4-20 mA output signal
- 3 electronic pressure transmitters of stainless steel with 4-20 mA output signal
- 2 safety pressure switches
- Filter press of AISI 304 stainless steel with frames of transparent Plexiglas for displaying the process
- Microfilter provided with housing of AISI 316 stainless steel
- Electronic turbidity meter with 4 - 20 mA output
- Microprocessor digital PID controller with serial card



- Switchboard IP55, complying with EC conformity mark, including plant synoptic and ELCB
- Piping and valves of AISI 304 and AISI 316 stainless steel
- Emergency button
- Supervision software for Windows: it enables to control ON-OFF signals, analog signals coming from PID controller, real-time trend and historical trend

Dimensions: 1500 × 670 × 1900 mm

Weight: 150 kg

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 3,5 kVA (Other voltage and frequency on request)
- Tap water (valve with ½" hose connector)
- Water floor drain

ACCESSORIES (NOT INCLUDED)

- Personal Computer running Windows

SUPPLIED WITH

THEORETICAL – EXPERIMENTAL HANDBOOK



VARIATIONS OF THE PLANT ON REQUEST

The equipment can be modified on request of the Customer.