



Tesca Automated Pilot Plant with Filter Press and Micro-filter 32484 is provided with a filter press and a microfilter (tangential filtration) that are fed by a screw pump connected with a tank filled with the solution to be filtered. Then filtrate is collected into another tank.

A microprocessor PID controller enables to operate at constant pressure or flow rate. Process control, data acquisition and supervision are automatically carried out by a microprocessor controller and by a specific control and supervision software that enables the remote control of various operational

Specifications

- Framework of AISI 304 stainless steel with castors
- Feed tank of AISI 304 stainless steel with capacity of 100 l, including stirring system with submersible pump
- Tank of AISI 304 stainless steel for the collection of filtered water with capacity of 100 l
- Feed screw pump with electronic-inverter control system
- Magnetic-induction flowmeter of stainless steel, with 4 to 20 mA output signal,
- 3 electronic pressure transmitters of stainless steel, with 4 to 20 mA output signal
- 2 safety pressure switches
- Filter press of AISI 304 stainless steel with frames of transparent Plexiglas/acrylic
- Microfilter with housing of stainless steel AISI 316
- Electronic turbidimeter with output of 4 to 20 mA
- Digital microprocessor PID controller
- Connecting lines and valves of AISI 304 and 316 stainless steel
- Emergency pushbutton
- Supervision software for Windows: it enables to control ON-OFF signals, analog signals coming from PID controller, real-time trend and historical trend

Experiments

The process unit enables to develop and analyze the following issues:

- Dead end filtration (filter press)
- Tangential filtration (microfilter)
- Characteristic equations of filtration
- Filtration at constant flow rate or pressure
- Displaying the operational parameters of the plant on a schematic diagram with data updating in real time
- Automatic PID control of flow rate and pressure
- Plant supervision

Mains Power

- 220 – 240V 1Ph, 50Hz

Note: Specifications are subject to change.

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