

PILOT NF/RO-2540 PERSEP

Data Sheet

Cross-flow filtration with spiral-wound membrane

The pilot unit is designed to provide a flexible and high-performance solution for applications requiring precise process condition control. It is equipped with a variable-speed pump capable of delivering a flow rate of up to 1,400 L/h at a maximum pressure of 70 bar, ensuring optimal flow control. The 48 L process tank, maintained at the correct level by an auxiliary pump, guarantees a continuous and stable supply to the system.

The pilot unit integrates electronic sensors for data acquisition and recording, offering full control over the process. The 2540 spiral-wound membrane filtration module

(Persep™) and the tubular heat exchanger deliver efficient and reliable performance during processing operations. Process safety is enhanced through protection devices against overpressure, low levels, high temperatures, and operational anomalies.

The pilot unit remains simple and intuitive to operate, with manual valves for flow control, while its mobility on casters facilitates easy relocation and installation in different work environments.



Features

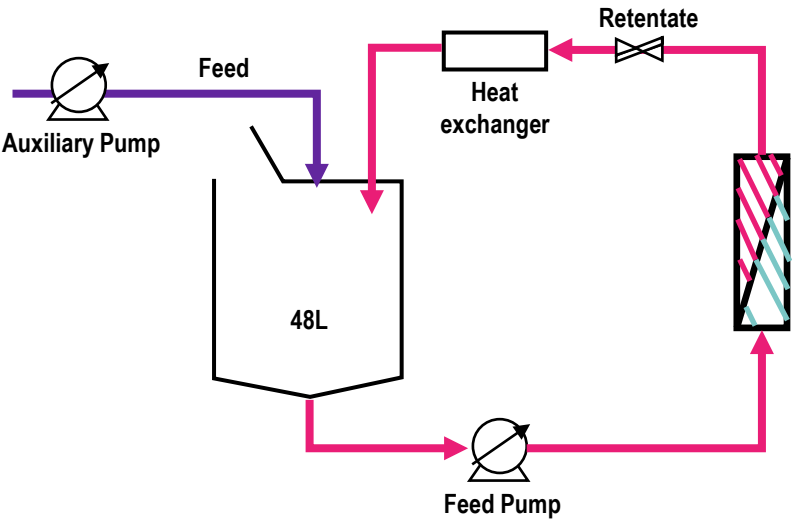
- Variable-speed pump, 0–1,400 L/h, max. 70 bar
- 48 L process tank with level maintained by auxiliary pump
- Electronic sensors with data acquisition
- 2540 spiral-wound membrane module (Persep™)
- Tubular heat exchanger
- Process protection via safety valve, low-level, high-pressure, and high-temperature safeguards
- Easy operation with manual valves
- Mobile on casters for convenient relocation

Key Advantages of this Pilot Unit

- 316L wetted materials
- High-precision process sensors
- Data logging
- Fully drainable
- Reliable safety system
- Mobile unit

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Performance

Performances	
Flow rate and feed pressure range	0-1400 L/h – 40 bar or 0-1400 L/h – 70 bar
Typical permeate flow rate	20-100 L/h
Dimensions (Length × Width × Height)	1450mm x 800mm x 1720mm
Wetted materials	316L, PTFE, joints EPDM ou FKM
Empty weight	170 kg
Maximum tank volume	48 L
Minimum operating volume	4 L
Power supply	400 V – 50 Hz, 3-phase + earth + neutral
Rated power	2,5 kW (40 bar) or 4,0 kW (70 bar)
Process instrumentation	Inlet/outlet pressure sensors, temperature sensor, circulation flow sensor, permeate flow sensor Safety valve
Automated control system	Automatic level control Pilot shutdown on level, pressure, or temperature faults Data logging

Module and membrane	
Module type	Module 2540
Membrane area	Typical:2,6 m ²
Maximum working pressure	40 bar or 70 bar
Maximum temperature	70°C (limited by the pump)
Module material	316L stainless steel