

Membrane Filtration

Model M Membrane Filtration Pilot Plant

The GEA Filtration Model M pilot plant is a laboratory-scale test plant designed for feasibility testing of cross-flow membrane filtration applications in the microfiltration, ultrafiltration and nanofiltration ranges. The unit can be set up for evaluation of a variety of membrane formats including



spiral-wound, ceramic, stainless steel and hollow fiber. The modular design allows the Model M to be built with fully customized design solutions including construction materials and material finishes, operating configurations and parameters, sanitation/sterilization protocols and instrumentation / automation level.



The unique features of the Model M include:

- simple and modular design allowing for effective and efficient feasibility testing
- flexible design allowing for membrane screening across a full range of membrane formats
- compact design for testing of very small product batches available in fully customizable designs

Standard Features

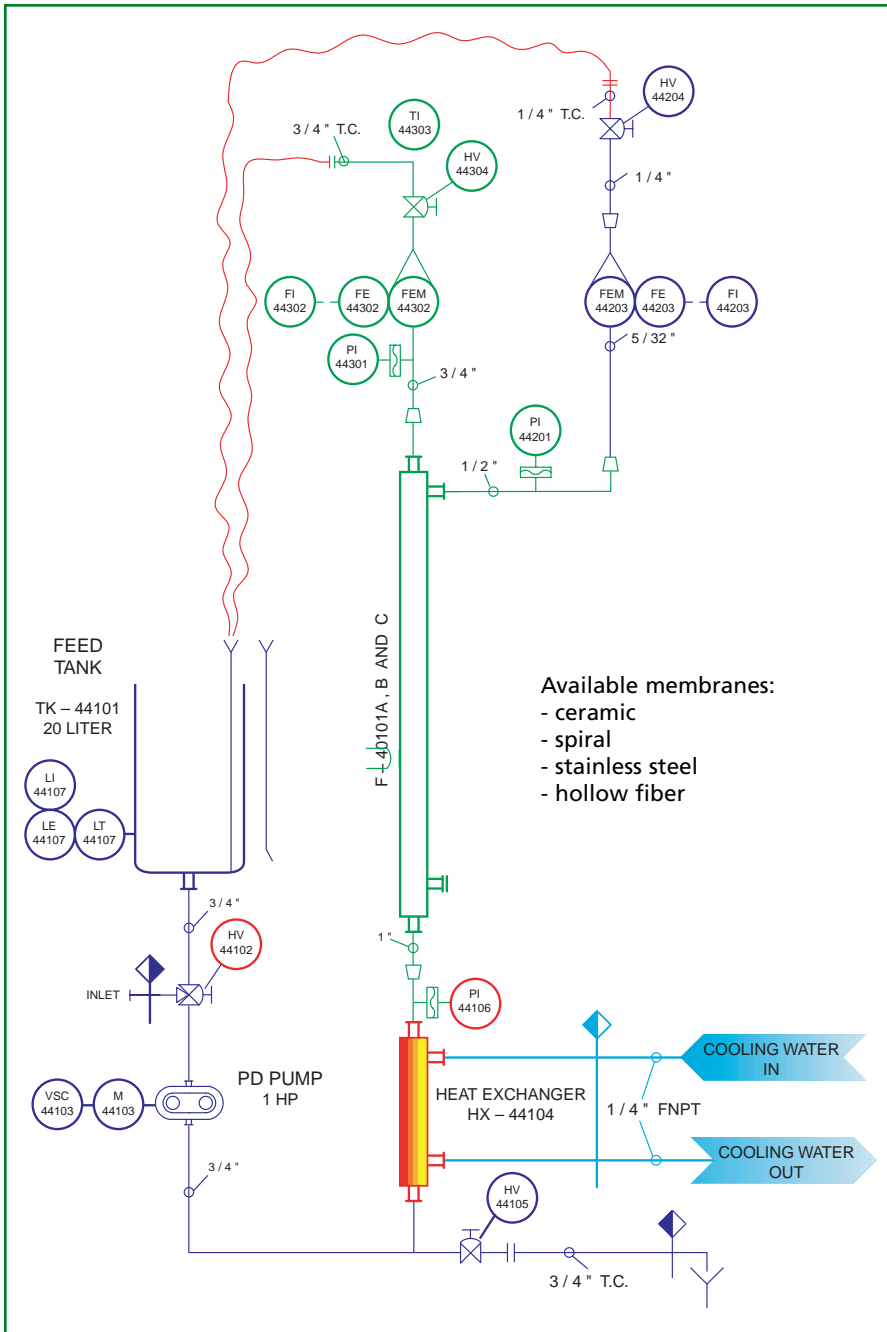
- 15 liter balance tank with electronic level transmitter
- One lab-size spiral wound membrane housing, 1.8" x 12"
- One lab-size ceramic membrane housing, 0.75" x 10"
- Feed pump with 1 HP variable speed drive
- Tubular heat exchanger
- Inlet and outlet pressure gauges
- Temperature indicator
- Manual flow control valves
- Flow indicators: one permeate, one concentrate
- Assembled on a tubular stainless steel base with casters

Operating Conditions

- Pressure up to 6 bar (87 psig)
- Temperature up to 93° C (200° F)
- Flow up to 1,000 l/h (4.4 gpm)

Optional Features

- Other membrane configurations (stainless steel, hollow fiber)
- High pressure operation
- Steam sterilization
- Hazardous area or explosion-proof construction
- Automated control systems
- Electropolished finish



Utility Requirements

- Floor Space 30" x 48" x 65"
- Shipping Wt. 350 lbs.
- Voltage/ph 220V, 1 ph
- Total HP 1
- Feed Tank Cap. 19.4 L
- Min. Vol. w/Spiral Module Approx. 1.25 L
- Min. Vol. w/Other Modules Approx. 0.75 L
- Permeate Outlet 3/8" ID FLEX (3/4" TC)
- Concentrate Outlet 3/4" ID FLEX (3/4" TC)
- Max. Flow 1000 L/H
- Max. Pressure 6 bar
- Tank Drain 3/4" TC
- Tank Bypass 3/4" TC
- Heating/Cooling Inlet 1/8" FNPT
- Heating/Cooling Outlet 1/8" FNPT
- Caster Mounted Yes

Note: Supplying power to the panel is the responsibility of the renter.



GEA Filtration is part of GEA, an international process engineering leader in the life sciences industry with more than 150 companies operating worldwide. As a team member with other technology leaders within the group, GEA Filtration is uniquely positioned to provide both customized membrane filtration plants as well as complete process lines specifically tailored to each customer's individual needs and requirements.

GEA Filtration is world renowned for its design of the most advanced cross-flow membrane filtration systems available, namely Reverse Osmosis (RO), Nanofiltration (NF), Ultrafiltration (UF) and Microfiltration (MF). We also offer a wide range of system configurations and membrane types to provide the customer with the most technically proficient and cost effective solution for each application.

For more information on the capabilities of our pilot plants, consult our website at www.geafiltration.com.



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