

Sterlitech™ Hybrid Membrane Test Skid

Sterlitech™ Hybrid Membrane Test Skids are designed to evaluate the performance of membranes widely used in Reverse Osmosis, Nanofiltration, Ultrafiltration, and Microfiltration applications by simulating the flow dynamics of larger, commercially available membrane systems. This test skid offers experimental control by allowing adjustment of the flow parameters to accommodate a wide range of applications. This system has been specifically configured for use with Sterlitech™ cross flow cells, including Sepa CF, CF042, and CF016. Sterlitech™ Hybrid Membrane Test Skids can be operated as 1812 element and cross flow cells in parallel.

The Skid System also displays and records the data collected by the integrated sensors in real-time. Collected data can be accessed and retrieved using USB or Ethernet connections.

Note: Available in analog version as well.

APPLICATIONS:

- Biological or Biopharmaceutical Processing
- Concentration of Fruit Juices and Extracts
- Food and Beverage Processing
- Desalination of Brackish Water or Seawater
- Purification of Rinse Water in Electroplating Tanks
- Municipal or Industrial Water and Wastewater Purification

STANDARD FEATURES:

- Sea Water Rated Plumbing
- Operates as 1 or 2 Lines in Parallel
- High-Pressure, Stainless Steel Diaphragm Pump
- Digital or Analog Pressure and Flow Meters³
- Digital Temperature and Conductivity Sensors³
- Stainless Steel Frame with Heavy Duty Casters
- Sepa CF Cell in Parallel with 1812 Stainless Steel 316 Housing
- Operating Pressures to 1000 psi (69 bar) for Sepa CF Cell and 600 (41 bar) psi for 1812 Housing

STERLITECH CORPORATION

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SPECIFICATIONS:

Cell Type

Sepa CF in Parallel with 1812 Stainless Steel 316 Housing

Number of Cells

1 of Each

Can be Customized with Combinations of Cross Flow Cells

Membrane Sample Size¹

Sepa CF: 7.5 x 5.5 in (19 x 14 cm)

1812 Housing: 1.8 in dia. x 12 in length spiral wound element

Effective Membrane Area¹

Sepa CF: 24 in² (140 cm²)

1812 Spiral Wound Element: Variable (max. 0.45m²)

Feed Flow Rate

1.8 GPM (6.7 LPM) max.

Feed Controls

Bypass Valve

Concentrate Pressure Control Valves: 0-1000 psi (0-69 bar)

Data Monitoring²

Flow Rate, Pressure, Temperature, Conductivity, Weight

Operating Pressure Range

0-1000 psi (0-69 bar)

Electrical Supply

110V/60Hz, 1 Ph or 220V/60Hz, 1 Ph

Pump and Motor Rating

Washguard Electric Motor

Positive Displacement Pump

System Dimensions/Weight

67 x 41 x 59 in (170 x 104 x 150 cm)

650 lbs (295 kg)

Optional Accessories

Temperature Controller, pH Sensor, Digital Balance

Footnotes:

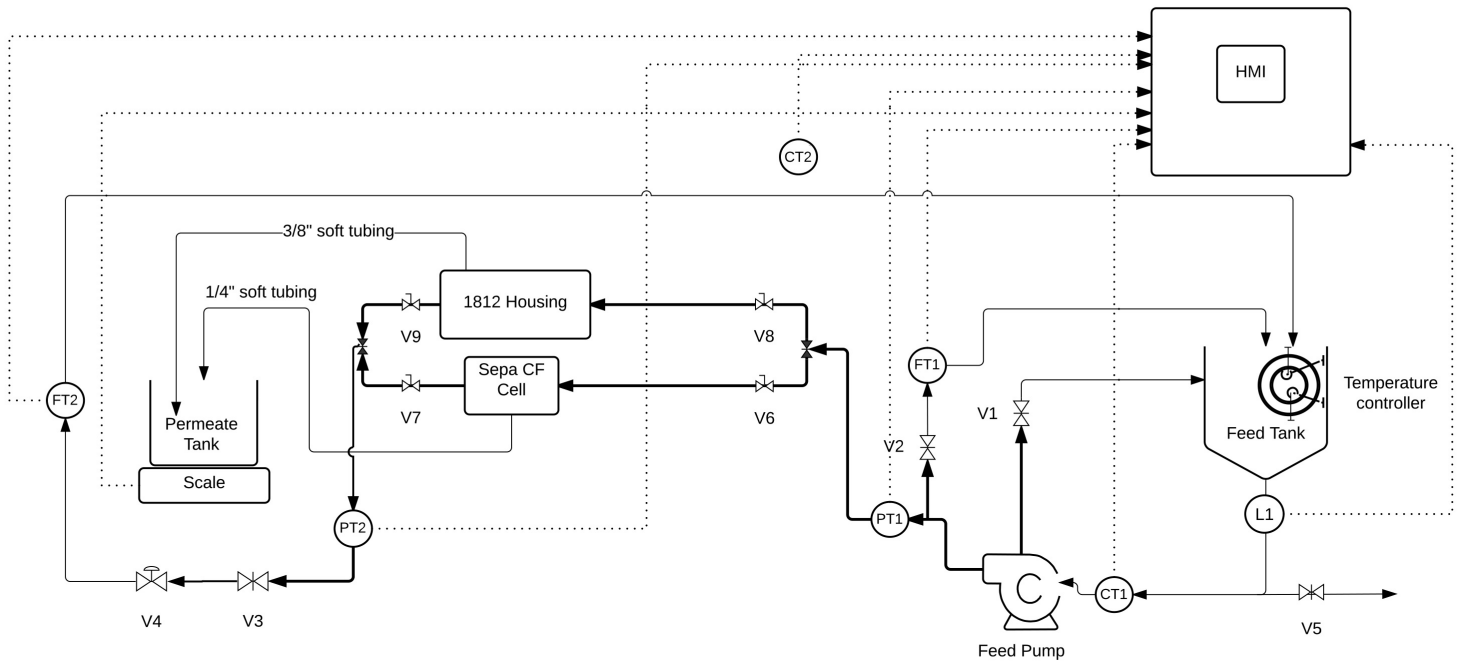
¹ Per Cell

² Includes 1 Ethernet and 1 USB connection for data retrieval

³ Optional

Sterlitech™ Hybrid Membrane Test Skid

Skid Configured with Sepa CF Cell and 1812 Housing



Legend

- V1: Feed pressure relief valve
- V2: Feed by-pass valve
- V3: Low pressure concentrate control valve
- V4: High pressure concentrate control valve
- V5: Drain valve
- V6: Bank selector valve #1
- V7: Back flow preventor valve #1
- V8: Bank selector valve #2
- V9: Back flow preventor valve #2
- PT1: Feed pressure transmitter
- PT2: Concentrate pressure transmitter
- FT1 :By-pass flow rate transmitter
- FT2: Concentrate flow rate transmitter
- CT1: Feed inlet conductivity/temperature transmitter
- CT2: Remote conductivity/temperature transmitter
- L1: Level switch

-▶ Electrical Signal
- ▶ Low pressure fluid line
- ▶ High pressure fluid line

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