Sterlitech™ CF042 Membrane Test Skid

Sterlitech™ Bench Test Systems are designed to be versatile to meet the dynamic needs of researchers and engineers alike and are ideal for research and development, feasibility studies, and small batch processing. These systems enable evaluating the performance of membranes used in Reverse Osmosis, Nanofiltration, Ultrafiltration, and Microfiltration applications by simulating the flow dynamics in the larger commercially available processes.

The unique design of the CF042 test cells allows flat sheet membranes to be quickly changed out, thus reducing time between trials. Bench systems are available in single or multiple cell configurations in both parallel and series modes. 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:
- Stainless Steel or Plastic Feed Tanks
- Operates as 1 or 2 Lines in Parallel
- High-Pressure, Stainless Steel Diaphragm Pump
- Digital or Analog Pressure and Flow Meters
- Digital Temperature and Conductivity Sensors
- Stainless Steel Frame with Heavy Duty Casters
- Configured with Parts and Instruments Resistant to Harsh Environments and Corrosive/Hazardous Chemicals

SPECIFICATIONS:

Cell Type
CF042: Available in Stainless Steel, Delrin, Acrylic, and PTFE

Number of Cells
6
Can be Customized with Combinations of Cross Flow Cells

Membrane Sample Size\(^1\)
2.3 x 4.4 in (5.8 x 11.2 cm)

Effective Membrane Area\(^1\)
6.5 in\(^2\) (42 cm\(^2\))

Feed Flow Rate
1.8 GPM (6.7 LPM)

Feed Controls
Bypass Valve
Concentrate Control Valves: 0-1000 psi (0-69 bar)

Data Monitoring\(^2\)
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
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Skid Configured with CF042 Cross Flow Cells

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
- PT1: By-pass flow rate transmitter
- PT2: Concentrate flow rate transmitter
- CT1: Feed inlet conductivity/temperature transmitter
- CT2: Remote conductivity/temperature transmitter
- L1: Level switch

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