The Sterlitech™ Forward Osmosis Membrane Test Cell System is designed to evaluate the performance of Forward Osmosis membranes under varying conditions. This test skid offers experimental control by allowing adjustment of the flow parameters to accommodate a wide range of operating conditions and applications. This system has been specifically designed for use with Sterlitech™ CF042 and Sepa Cells configured for Osmotically Driven Processes.

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:**

- Oil and Gas Industry
- Leachate Treatment
- Concentration of Fruit Juices/Extracts
- Brine Concentration
- Municipal/Industrial Water and Wastewater Purification

**STANDARD FEATURES:**

- Operating Pressures to 0-80 psi (5.5 bar)
- Stainless Steel or Plastic Feed and Draw Tanks
- All Wetted Parts are Stainless Steel or Inert Thermoplastics
- Digital Pressure, Flow, Conductivity, and Temperature Sensors
- PEEK/PTFE Gear Pumps with Variable Speed Control
- Stainless Steel Frame with Heavy Duty Casters

**SPECIFICATIONS:**

**Cell Type**
- CF042-FO or Sepa-FO

**Number of Cells**
- 1
  Can be Customized with Combinations of Cells

**Membrane Sample Size**
1. CF042-FO: 2.3 x 4.4 in (5.8 x 11.2 cm)
2. Sepa CF-FO: 7.5 x 5.5 in (19 x 14 cm)

**Effective Membrane Area**
1. CF042-FO: 6.5 in² (42 cm²)
2. Sepa CF-FO: 24 in² (140 cm²)

**Feed/Draw Flow Rate**
- 0.01-0.85 GPM (0.032-3.2 LPM)

**Feed/Draw Controls**
- Feed and Draw Pump Speed Control
- ON/OFF Switch

**Data Monitoring**
3. Flow Rate, Pressure, Temperature, Conductivity

**Operating Pressure Range**
- 0-80 psi (5.5 bar)

**Electrical Supply**
- 110V/60Hz, 1 Ph or 220V/60Hz, 1 Ph

**Pump and Motor Rating**
- Gear Pump with Console Drive
- 50-5000rpm, 2.3A, 50/60Hz

**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. Higher operating pressure limits available with alternative pumps
3. Includes 1 Ethernet and 1 USB connection for data retrieval
Sterlitech™ Forward Osmosis Membrane Test Skid

Skid Configured with Forward Osmosis Cell

Legend

V1: Feed pressure control valve
V2: Feed tank drain valve
V3: Draw pressure control valve
V4: Draw tank drain valve
CT1: Feed conductivity/temperature transmitter (portable)
CT2: Draw conductivity/temperature transmitter (portable)
PT1: Feed inlet pressure transmitter
PT2: Feed outlet pressure transmitter
PT3: Draw inlet pressure transmitter
PT4: Draw outlet pressure transmitter
FT1: Feed flow rate transmitter
FT2: Draw flow rate transmitter

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