

Sterlitech™ Pressure Retarded Osmosis Assembly

The Sterlitech™ Pressure Retarded Osmosis Assembly is designed to evaluate the performance of Osmotically Driven Processes and membranes under varying conditions. The assembly offers experimental control by allowing adjustment of the flow parameters to accommodate a wide range of operating conditions and applications. This system can be configured for use with Sterlitech™ CF042 and Sepa Cells configured for Osmotically Driven Processes.



APPLICATIONS:

- Power Generation
- Hybrid Systems Combined with RO, FO, and Wastewater Treatment Systems
- Brine Desalination

STANDARD FEATURES:

- Operating Pressures to 1000 psi (69 bar)
- Polypropylene Carboy Feed and Draw Tanks
- All Wetted Parts are Stainless Steel or Inert Thermoplastics
- High-Pressure, Stainless Steel Diaphragm Pumps
- Flow, Pressure, Temperature, and Conductivity Sensors²
- Weight Monitoring with Digital Scales²

SPECIFICATIONS:

Cell Type

CF042-FO or Sepa-FO

Number of Cells

1

Can be Customized with Combinations of Cells

Membrane Sample Size¹

CF042-FO: 2.3 x 4.4 in (5.8 x 11.2 cm)

Sepa-FO: 7.5 x 5.5 in (19 x 14 cm)

Effective Membrane Area¹

CF042-FO: 6.5 in² (42 cm²)

Sepa-FO: 24 in² (140 cm²)

Feed/Draw Flow Rate

1.8 GPM (6.7 LPM) max.

Feed/Draw Controls

Bypass Valve

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/230V, 50/60Hz

Pump/Motor Rating

Positive Displacement Pump with Washguard Electric Motor

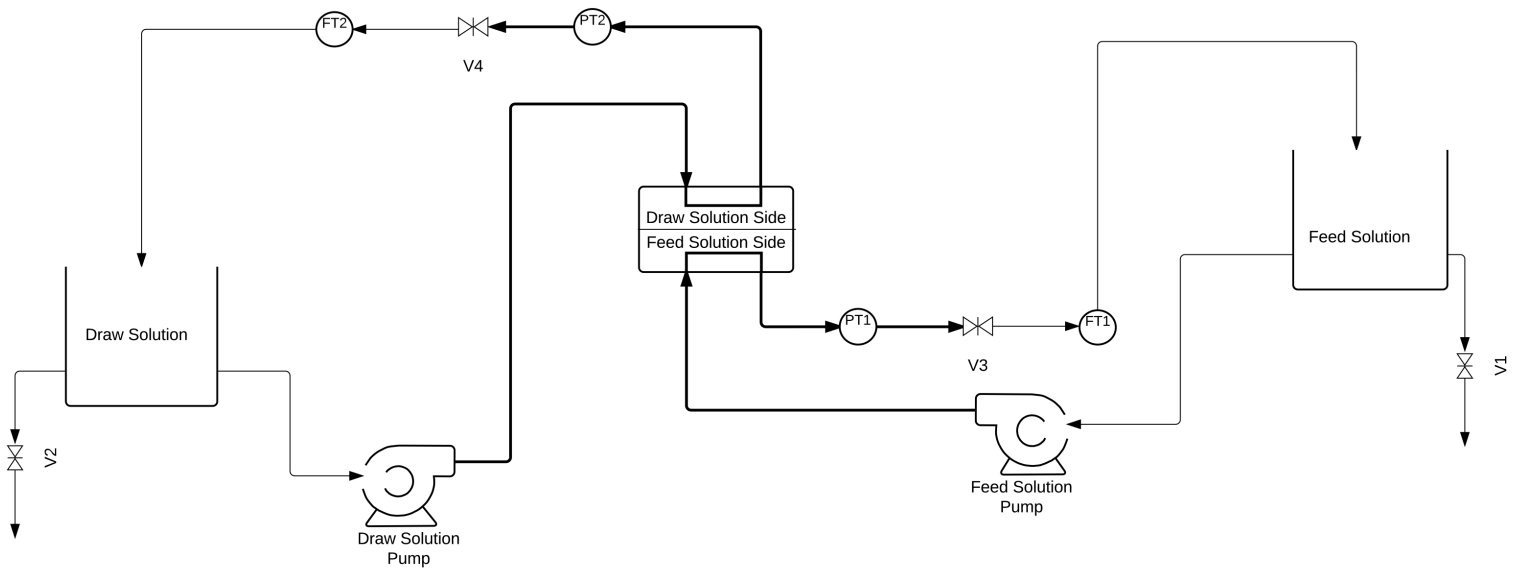
Feed and Draw Tanks

Polypropylene, 20L (5.28 gal)

¹ Per Cell



² Optional

Sterlitech™ Pressure Retarded Osmosis Assembly



Legend

V1: Feed tank drain valve
 V2: Draw tank drain valve
 V3: Feed pressure control valve
 V4: Draw pressure control valve
 PT1: Feed pressure gauge ²
 PT2: Draw pressure gauge ²
 FT1: Feed flow meter ²
 FT2: Draw flow meter ²

 Low pressure fluid line
 High pressure fluid line