

## Sterlitech™ Forward Osmosis Assembly

The Sterlitech™ Forward Osmosis Assembly is designed to evaluate the performance of Forward Osmosis 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 has been specifically designed for use with Sterlitech™ Sepa CF, CF042, and CF016 Cells configured for Forward Osmosis.

### 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 80 psi (5.5 bar)
- Polypropylene Carboy Feed and Draw Tanks
- All Wetted Parts are Stainless Steel or Inert Thermoplastics
- PEEK/PTFE Gear Pumps with Variable Speed Control
- Optional Flow, Pressure, Temperature, and Conductivity Sensors, Weight Monitoring with Digital Scales



### SPECIFICATIONS:

#### Cell Type<sup>1</sup>

CF016-FO, CF042-FO, Sepa-FO

#### Number of Cells<sup>1</sup>

1

#### Membrane Sample Size<sup>2</sup>

CF016-FO: 1.78 x 1.78 in (4.52 x 4.52 cm)

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 Area<sup>2</sup>

CF016-FO: 3.2 in<sup>2</sup> (20.6 cm<sup>2</sup>)

CF042-FO: 6.5 in<sup>2</sup> (42 cm<sup>2</sup>)

Sepa CF-FO: 24 in<sup>2</sup> (140 cm<sup>2</sup>)

#### Feed/Draw Flow Rate

0.01-0.85 GPM (0.032-3.2 LPM) max.

#### Feed/Draw Controls

ON/OFF Switch

#### Data Monitoring (Optional)

Flow Rate, Pressure, Temperature, Conductivity, Weight

#### Operating Pressure Range

0-80 psi (0-5.5 bar)

#### Electrical Supply

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

#### Motor Rating

50-5000 rpm, 2.3A, 50/60Hz

#### Pump

Gear Pump with Console Drive

#### Feed and Draw Tanks

Polypropylene, 5L (1.3 gal)

### STERLITECH CORPORATION

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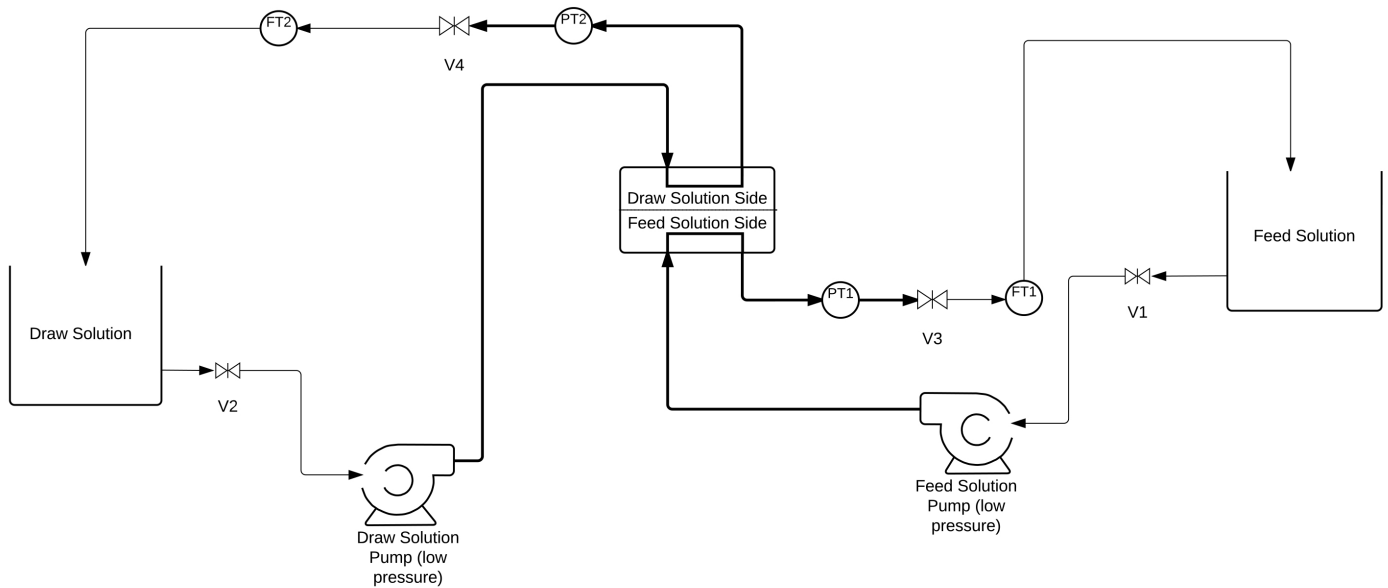
#### Footnotes:

<sup>1</sup> Can be Customized with Combinations of Cells

<sup>2</sup> Per Cell

## Sterlitech™ Forward Osmosis Assembly

### Forward 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<sup>2</sup>  
 PT2: Draw pressure gauge<sup>2</sup>  
 FT1: Feed flow meter<sup>2</sup>  
 FT2: Draw flow meter<sup>2</sup>

→ Low pressure fluid line  
 → High pressure fluid line

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