



SEPA[®] CF II

Membrane Cell System



GE Osmonics

The SEPA CF II

Sepa® CF II Membrane Cell system is a lab quality crossflow membrane filtration unit capable of withstanding up to 69 bar (1,000 PSIG). It provides fast and accurate performance data for any reverse osmosis, nanofiltration, ultrafiltration or microfiltration crossflow application.

Applications

Acid Concentration

Acid Purification

Antibiotic Concentration

Brackish Water Desalination

Colloidal Silica Removal

Dextrose Purification

Dye Purification

ED Paint

Enzyme Concentration

Fruit Juice Concentration

Low Pressure Brackish Water Desalination

Oil/Water Separations Organics Concentration

RO/NF Pretreatment

Sea Water Desalination

Starch/Sugar Concentration

Versatile Operational Capabilities to Fit a Wide Range of Applications

Sepa CF II has a unique, patented design that simulates the flow dynamics of larger, commercially available membrane elements. This versatile membrane cell can be used as a membrane evaluation device, process development tool or for small-scale production, while minimizing the amount of membrane and sample used. This results in a significant savings of time and money, enabling you to fully leverage your investment.

Using Sepa CF II you can easily modify operating conditions, fluid dynamics and pressure levels to simulate a broad range of applications. This enable you to easily determine which GE Osmonics flat-sheet membrane is most appropriate for your intended application.

Features and Benefits

Sepa CF II Membrane Cell system has many features that make it ideal for use in any reverse osmosis, nanofiltration, ultrafiltration or microfiltration crossflow application.

- **Accepts any flat sheet membrane.**
- **Unique piston clamping mechanism.** Patented pneumatic or hydraulic mechanism enables quick change out of membrane in less than one minute, and then quickly seals it with uniform pressure and a leak-proof seal.
- **Wide variety of shims and spacers.** Optimizes flow characteristics during filtration, maximizing membrane efficiency.
- **Accommodates pressures to 69 bar (1000 PSIG).** Allows for the simulation of a greater range of large-scale applications at optimal rates.
- **Stainless steel body with Viton* o-ring.** Contributes to flexibility of use by allowing almost any type of substance through the membrane cell.

Operating Parameters

Effective Membrane Area	155 cm ² (24 inch ²)
Hold-Up Volume	70 mL (2.4 oz)
Maximum Pressure	69 bar (1000 PSIG)
Maximum Temperature	177°C (350°F)
pH Range.....	Membrane dependent

Materials of Construction

Cell Body	Stainless Steel 316
Cell Holder	Anodized Aluminum
Concentrate Flow Control Valve.....	Stainless Steel 316
Concentrate Pressure Gauge.....	Stainless Steel 316
O-Rings.....	Viton

Connections

Feed, Concentrate	1/4 inch FNPT
Permeate	1/8 inch FNPT
Pneumatic/Hydraulic Port for Piston....	1/4 inch FNPT



Dimensions

Cell Body.....	16.51 x 21.3 x 5.0 cm (6.50 x 8.38 x 2.07 in)
Holder.....	20.0 x 28.0 x 20.0 cm (7.9 x 11.0 x7.9 in)
Membrane.....	19.1 x 14.0 cm (7.5 x 5 in)
Feed Spacer.....	14.6 x 9.5 cm (5.74 x3.74 in)
Permeate Carrier.....	14.6 x 9.5 cm (5.74 x3.74 in)

For more information about this product please visit the "Shop for Products" section online at www.osmolabstore.com

Pumps

Suggested lab-scale pumps include piston-driven diaphragm that provides fewer pulsations. Contact GE Osmonics for further recommendations.

For technical support, pricing and availability please contact the GE Osmonics Lab Store Help Desk.

Fluid Transfer

Depending on pressure, standard tubing or hose can be used for connecting cells to vessels. The connection between the pump and inlet valve on the cell should be a high-pressure hose. Contact GE Osmonics if additional help is required.

USA and Canada

Phone: 1-877-LabStore
(1-877-522-7867)

Fax: 952-988-6662

E-mail: labstore@osmonics.com

Compatible Flat Sheet Membranes

Accommodates any 19 cm x 14 cm (7.5 in x 5.5 in) flat sheet membrane for a full 140 square cm (22 square inches) of effective membrane area.

International

Phone: +1-952-988-6665

Fax: +1-952-988-6662

GE Osmonics offers precut and individually wrapped membrane inserts in single or assortment packs from our large selection of reverse osmosis, nanofiltration, and ultrafiltration membranes. Single packs are available with the microfiltration membranes.

Ordering Information

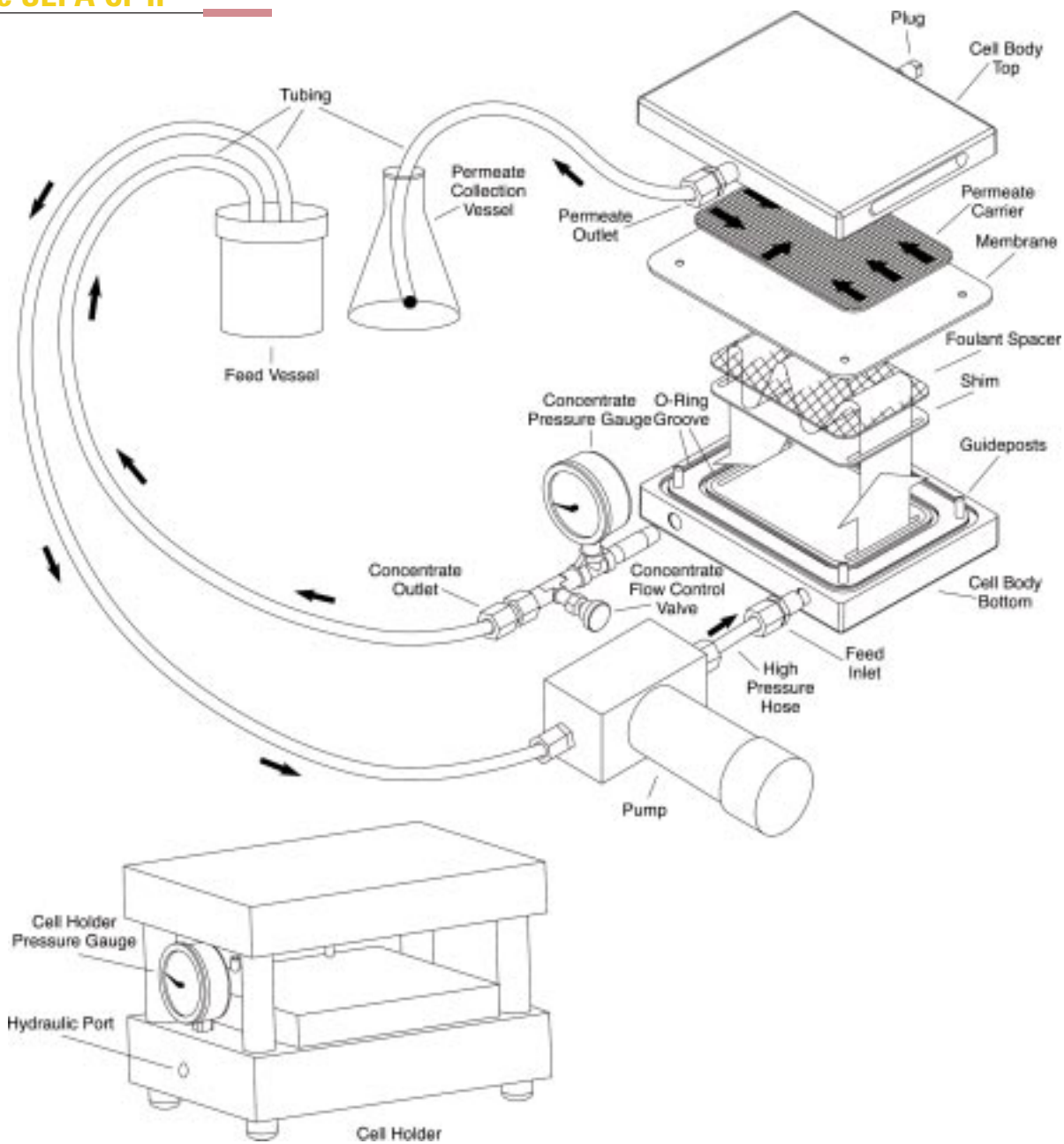
Order Number	Catalog Number	Product Description	Shipping Box	
			cm (in)	kg (lbs)
High-Pressure Sepa CF II Units			All Models	
1230059	YCFIFSYS01	Sepa CF II Low Foulant System (316SS Cell Body) for up to 34 mil spacer size	72x36x36 (28x14x14)	39 (85)
1230060	YCFHFSYS01	Sepa CF II System F-316SS Cell Body, Med/High Foulant System for up to 75 mil spacer size		39 (85)
Required Equipment				
1230086	YCFHHP0001	Hydraulic Hand Pump Kit (with hose and quick-release)	16.5x24.1x68.6 (6.5x9.5x27)	5 (11)
	Contact GE Osmonics	Feed Flow Pumps	Contact GE Osmonics	
Feed Spacer, Permeate Carrier and Shim Packs			All Models	
1142817	YCFPC05705	Permeate Carrier, (5/pack)	18x18 (7x7) envelope	0.5 (1)
1142819	YCFHS05705	65 mil Feed Spacer, (5/pack)		0.5 (1)
1143763	YCMFS05705	47 mil Feed Spacer, (5/pack)		0.5 (1)
1142818	YCLFS05705	34 mil Feed Spacer, (5/pack)		0.5 (1)
1232558	YCAFS05705	Assortment Feed Spacer Pack, 17, 31, 47, and 65 mil diamond, and 47 mil parallel, (1 of each/pack)		0.5 (1)
1231104	YCASS05716	Shims, 8 of 2 mil, 4 of 5 mil, 2 of 10 mil, 1 of 15 mil, and 1 of 25 mil, (16 total/pack)		0.5 (1)
Replacement Accessories				
1230029	YCFCH00001	Sepa CF Aluminum Cell Holder	16.25x13x12	21 (46)
1143205	YCVFORNG01	Sepa CF Viton O-Ring Kit Accessory		28 g (1 oz)
1149418	YCFHPFCV01	Sepa CF Concentrate Control Valve, High Pressure Accessory		0.9 (2)
1151427	YCFHHP0001	High pressure hose for Sepa inlet		0.9 (2)

Note: Sepa CF II Complete System includes a cell body, aluminum cell holder with pressure gauge, concentrate flow control valve with pressure gauge, kit which includes tubing, permeate carrier, feed spacers, spare Viton* o-rings, and instruction manual.

* Viton is a registered trade mark of E.I. DuPont Dow Elastomers

To operate the Sepa CF II system, a hydraulic hand pump and a feed pump is needed and must be purchased separately. Minimum tubing is provided in the kit.

The SEPA CF II



For More Information:

Call GE Osmonics Filtration and Separations Group at (952) 988-6665 or (800) 444-8212, or visit www.osmolabstore.com



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