

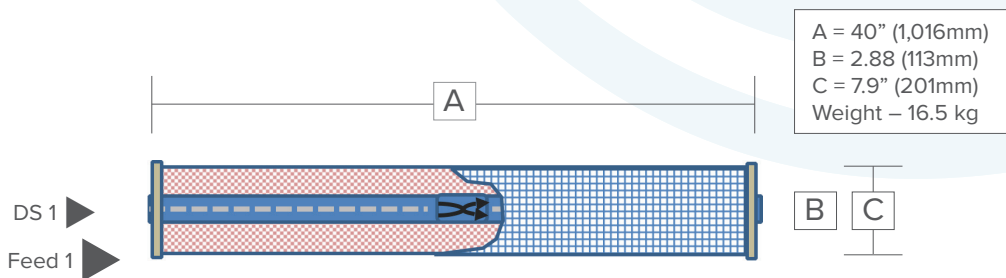
**OsmoF<sub>2</sub>O™ 8040** element with 31-mil fine feed spacer and standard draw solution spacer for non-viscous draw solutions. This element has been used to concentrate clarified pharmaceuticals with a divalent salt draw solution meeting sanitary requirements with cleanable full-fit outer wrap.

**Features and Benefits:**

- The membrane is the most fouling, abrasion and chlorine resistant FO membrane.
- Used with multiple element housings
- A fine diamond-type feed spacer (31-mil or 0.8-mm thick) providing stable FO fluxes with clarified clean feed solutions.
- The SDS draw solution spacer (20mil or 0.5mm permeate spacer) for low viscous draw solutions.

**Performance – Water Exchange between Clean Brine Solutions - (shown in diagram below):**

- Water Permeation: 475 gpd (1.8 m<sup>3</sup>/d)
- Active Area: 231 ft<sup>2</sup> (21.5 m<sup>2</sup>)
- Draw Solution Salt Rejection: 99.9%
- Test Conditions:
  - Feed (side ports): 100 gpm (23 m<sup>3</sup>/h) 65,000 TDS stream feed at 77°F (25°C) and 15 psi (100 kPa) exit
  - Draw (end ports): 2.0 gpm (0.45 m<sup>3</sup>/h) 105,000 TDS NaCl at 10 psi (70 kPa) feed
  - Rejection, typically, greater than 99.9% rejection of NaCl (draw solution brine) into feed:  $\{1 - [(kg \text{ draw transferred to feed}) / (kg \text{ water removed})]\} * 100$



# OsmoF<sub>2</sub>O™ 8040 Sanitary & Industrial FO Membrane

Model#: FO-8040-CTA-31-SDS-S

## Brief Operating Limits and Guidelines:

Membrane Requirements	Membrane must be kept moist at all times (do not allow to freeze).
Membrane Type	Cellulose Triacetate (CTA)
Max. Operating Temp.	120°F (50°C)
Max. Side-Port Pressure	75 psi (0.5 MPa)
Minimum Transmembrane Pressure(*)	5 psi (35 kPa)
pH Operating Range	3 to 7
Maximum Chlorine	2 ppm
Maximum Silt Density Index	less than 5
Maximum NTU	less than 1

(\*) Failure to maintain higher pressure on the side ports than the end ports can result in element seam failure, which is not covered under warranty after initial start-up.

## Configurations for different applications

- FO-CTA-8040-85. For treating High Fouling wastewaters (such as landfill leachate).
- FO-CTA-8040-45. For treating Moderate Fouling wastewaters (such as dirty seawater and other contaminated brine streams).
- FO-CTA-8040-31. For treating Low Fouling wastewaters (such as clean brines).
- FO-CTA-4040. The elements are identical to the 8040 models but instead of an eight-inch (203 mm) diameter, the model has a four-inch diameter (102 mm). This model is used for smaller volumes and specialty applications (such as pharmaceuticals).